## an INDEPENDENT EXAMINATION

OF THE ASSUAN AND ELEPHANTINE

# ARAMAIC PAPYRI 

with eleven plates and two appendices on sundry items

BY

## L. BELLELI,

Doctor of philology from the Florence Istituto di Studj Superiori.

Auctoritatibus non assentor, ratione pugno.


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## inscribed witll respect

fellow-countrymanship and common ideals
link me affectionately

## NOTICE.

This book does not aim at success; it is a service of which Semitic scholarship las been in need for a long time.
It was to be out in the autumn of last year within the compass of the first one hundred and thirty-six pages. But he ill-feeling manifested by an organ of the Press caused its delay and increase in volume
The incident related in pages $195-6$ led to an offer of satisfaction which should have consisted in a note to be published over a mock signature, and in its substance and tone recommending this forthcoming work to the merciful consideration of students. The mathematical demonstration - before which all sophistry is doomed to bankruptcy - was to be dismissed in a little more than one line

The challenge has been taken up, and the additional part will help the reader in judging of the degree of reliance certain literature deserves and in learning by what methods theories are sometimes forced upon the credulity of the ingenuous.

The discussion cannot be choked off any longer, and to straight argument must respond straight argument
Reason, freed from prepossession and partiality, is called upon to exert its power; and the fruit of free reason shall be sound and wholesome

March 28 th 1909.
L. BELLELI.

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## EXAMINATION OF THE PAPYRI.

I. Their double dates.
II. Their relation to the Blacas papyri and other texts.
I.

The doeuments we are going to deal with inelude
(1) 1 Aramaie papyrus provided with a double date, Hebrew and Egyptian, which was bought in the winter of 1901 by Prof. Sayee from diggers who said to have found it in Elephantine, and now lies in the Bodleian Library;
b) $3 \frac{1}{2}$ similar papyri sold in Assuan by dealers to Lady Willian Cecil in 1904 with an uneertain report about their provenance and just while Prof. Maspero, the Director-General of the Serviee of Antiquities, was trying in vain to find any papyri of this elass in that island;
c) $5 \frac{1}{2}$ similar papyri, about the alleged discovery of which near Assuan intelligence had been sent in the apring of 1904 to Mr. Robert Mond then busily engaged upon exeavations in Thebes wherefrom he hurried up to order by wire that they should be kept for him.
To these ten papyri which, with the exeeption of the first, are preserved now in the Cairo Museum, and which thanks to the munifieent liberality of Mr. Mond and the scholarly care of Prof. Sayee and Mr. Cowley
of the Bodleian Library have been published in 1906 there is to be added the oldest as to date of purchase papyrus of this class bought at Luxor in 1900 and now belonging to the imperial Library of Strassburg, as well as the inscription on a sandstone slab of the Cairo Museum which was published in 1903 in the transactions of the Académie des Inseriptions et BellesLettres, and, last but not least, the incomparable set of three papyri dug up in Elephantine in 1907 and some time afterwards published in the transactions of the Königliche Preussische Akademie der Wissenschaften.

According to their dates the papyri of the first set were in Sayce and Cowley's book classified in the following manner which on the whole is subject to no serious objection:

| Papyrus | A 471 (or 470) B.C. El |
| :---: | :---: |
| " | B 465 B.C. Kislev $18=$ Thoth 6 (or 7 ) |
| " | C is hopclessly mutilated in the place of the date which, however, has been conjectured to be identic with that of papyrus D |
| " | D $459 \quad$ B.C. Kislev 21=Mesore 1 |
| " | E 446 B.C. Kislev 3=Mesore 10 |
|  | F $440 \quad$ B.C. $\quad$ Ub 13 (or 14) $=$ Pahhon 19 |
| " | G's (which was sold in shares to Lady Wm. Cecil and Mr. Mond) date was conjecturally restored into |
|  | 440 B.C. Tishri (23?) = Epiphi 6 |
| " | J 416 (or 415) B.C. Kislev $3=$ Toth 11 (or 12), |
|  | K 410 B.C. Shebat 23 (24)=Athyr $8(9)$ |

We will see that the Strassburg papyrus eannot be suid to bear a date whatever. The sandstone inscription is of 458 B.C., and identifies the Jewish month of Sivan with the Egyptian of Mehhir. By Prof. Sachau who illustrated the most important of the last published three papyri its date was identified with the year $408 / 7$ B.C.; but unlike the Cairo documents this papyrus mentions only one nation's month, the Hebrew Marheshvan. The years B.C. have been calculated through the regnal years of various Persian monarchs stated in the papyri.

Our attention to Sayce and Cowley's book was first lrawn by a friend during the autumn of 1906, when being engaged upon a quitc different kind of work we gave to it only a very few minutes of our time; but in two articles on it we saw afterwards in the "Athenaeum" we noticed a considerable amount of confusion about the circumstanecs under which the papyri were brought into light and about the origin and constitution of the Community with whose economic, social, and religious life they purported to be connected. Wc conceived then some doubts in regard to their character, and our doubts were strengthened after a somewhat close inspection of the wording and the general texture of the documents. We resolved consequently upon carrying our.investigation to the innermost of the matter with the object of forming a definite opinion for our own satisfaction, and in consideration of some needful serviee which was likely to be rendered to Semitic students no less than to the wider eircle of those interested in archaeological exploration at large.

The safest test of the genuineness of thesc papyri is an inquiry into their chronology, and it is obvious that only one indisputable fault discovered in the correspondence of dates would suffice to shake the belief in their authenticity. Should the errors appear in great numbers and bc of eonsiderable magnitude, then not the slightest hesitation should be permitted in declaring them spurious.

In proceeding to such an examination we will start by summing up what we know about the Egyptian and the Hebrew calendars, with parallel dates of whieh are furnished nearly all the documents at issue.

The Egyptian calendar was very simple, the year being divided into the twelve months, Thoth, Phaophi, Athyr, Choiak, Tybi, Mehhir, Phamenoth, Pharmuthi, Pahhon, Payni, Epiphi, and Mesore of thirty days each, to whieh at the end of the year five additional days, $\dot{\varepsilon} \pi \alpha \gamma \dot{\prime} \mu \varepsilon \nu \alpha \iota \dot{\eta} \mu \dot{\varepsilon} \rho \alpha \iota$, were appended in order to make up a total of 365 days, and thus bring about, as much as it could be done, a concordance of the civil with the astronomieal year. The observation was made by the aneient Egyptians that 365 days do not represent the exact length of the latter, and that the ealculation of the celestial and atmospherie phenomena eould not be carried with the desired degree of precision by this standard, but nothing was done by them in the way of smoothing away the diffieulty arising from the yearly residue of about six hours. When after the long run of 1460 years the heliac rise of Sirius happened to take place on the $1^{\text {st }}$ Thoth which was the starting
day in their ealendar the coineidence was regarded as a good omen, and the entry of the new year was "elebrated more solemnly than ever in the course of the past fourteen centuries and three score. These special fistivities, however, involved no alteration in the length of the year which continued to run as usual and to reach its end with the fifth epagomenal day ${ }^{1}$ ).
The bilingual inseription of Canopus which is a resolution of Egyptian priests assembled at that town in the ninth year of Ptolemy Evergetes (239 B.C.) rontains among other things the decision taken by that Convention of adding every fourth year a sixth epagomenal day and so bringing the total of days in that year up to 366 instead of the 365 in the ordinary course, and that for the stated purpose of avoiding the case of festivals which in their days were celebrated in the winter being in the future kept in the sommer, and viee-versa. It seems, however, that the resolution of the priests never had a praetieal effeet, and that not only the calendar remained unaltered for another two centuries, but all memory of the proposed innovation had been entirely lost when Julius Caesar proceeded to his own reform with no allusion, as far as our reeords go, either on his or Sosigenes' part to a similar attempt having been made before their time.

[^0]The Jewish months were based on the easy observation of the renewal of the moon's phases in a period of about 29 days and a-half, hence the alternate succession of months of 30 and 29 days. The very words for month in the Hebrew language, Hodesh and Yerah, are better than in somc others expressive of the appearance and changes of the satellite of the earth. Numbers 28; 11 preseribes a sacrifice to be offered on Jehovah's altar on the first day of each month, and after the fall of Jerusalem the imagination of the people saw in the constant renewal of the moon the promise of a revival and restoration of the independent Jewish nationality in Palestine ${ }^{1}$ ). Worship and patriotic feeling placed the lunar month at the foundation of the Jewish calendar, and all future reformers of the latter were bound to give due attention to these imperative circumstances. The notion of the year as a civil institution existed among the Jews, their months were numbered, and there occurs in the Bible the mention of as many as twelve months in the year (Esther 3; 13). Although some of them are known under more than one name, in the present ealendar of the Synagogue the following is the series of the twelve: Tishri, Hesvan, Kislev, Tebeth, Shebat, Adar, Nissan, Iyar, Sivan, Tammuz, Ab , and Elul. But the twelve lunations yield a total of only 354 days, and, as the majority of the Jcwish festivals, side by side with the religious or historic eharacter, earried an agrieultural meaning we must admit that at a very early date some empirical means

[^1]was contrived with the object of establishing the harmony between the system of the twelve lunations and the natural recurrence of the seasons. The use of trumpets for the gathering of the worshippers, and the derivatives of קרא, to call, in connection with the lestivals suggest the idea of some praetice of proclamations at no strictly set dates laving been adopted in the remote period when nothing had been done yet for the fixing of a regular and permanent ealendar.

At present the calendar of the Jews is a slightly modified form of the nineteen-year eycle which Meton had excogitated for the Athenians in the year 432 B.C., but was adopted by the latter upwards of a century later. By this system in the nineteen-year period of the Jewish ealendar the $3^{\text {rd }}, 6^{\text {th }}, 8^{\text {th }}, 11^{\text {th }}, 14^{\text {th }}, 17^{\text {th }}$, and $19^{\text {th }}$ are embolismic, and have 13 months instead of the 12 in each of the others, with the result that cvery group of 19 consecutive Jewish years is nearly equal to 19 Julian years, the only difference consisting in a shortage of about one and a-half hours in the Hebrew cyele as against a cycle of equal length in the Julian calendar. This trifle causes sometimes the Jewish year to offer a total of 6940,6941 , or 6942 days instead of 6939 which is the most frequent. When the Jewish calendar now in operation was constructed the greatest care was exercised in order to prevent the Day of Atonement from falling on a Friday or on a sunday, because such an occurrence would involve the uninterrupted succession of two days, Friday and Saturday or Saturday and Sunday, on which the lighting
up of fire and all sorts of work necessary for men's comfort would be inevitably prohibited. But this inconvenience and some others of minor importance could not be obviated if the calendar were left to follow its regular course, and a remedy was thought out by making the yearly total of 354 be, as might serve the purpose best, redueed or increased by one unit. The result is that there are now in the Jewish calendar the following types of years: normal of 354 days, deficient of 353 and redundant of 355 , and again of 384,383 , and 385 days when the year is swollen by the addition of the embolismic month which always consists of 30 days. These various types will be represented by $n$, d, and $r$ for the common years, and by $\mathrm{N}, \mathrm{D}$, and R for the embolismic ${ }^{\mathbf{1}}$ ).

In the ninth eentury Rabbi Nahshon ben Zadok of Sura observed that thirteen cycles of nincteen years each (i.e. 247 years) make a longer cyele to which he gave the name of Higgul and which would represent a period of time constantly repeating itself with identic eharacteristics as to length of individual years, to dates, days of the week, and all ritual arrangements as well as to the afore-mentioned oceasional extension of the total of days in the nineteen year cycle from 6939 to 6940 , 6941 or 6942. All authorities on the Hebrew ealendar leave the first 114 years of the existence of the world

[^2]out of the eomputation, and give the following as the starting years of the suecessive Higgulim from the ereation down to the end of the sixth millennium: 115, 362, 609, $856,1103,1350,1597,1844,2091$, 2338, 2585, 2832, 3079, 3326, 3573, 3820, 4067, 4314, 4561, 4808, 5055, 5302, 5549, 5796. Nahshon's statement is not aecurate in all its particulars, and is considerably defective from the ritual point of view whieh, however, has no bearing whatever on the object of our investigation. What we are coneerned in is the eorrespondence of dates and the length of years, about which we ean say that the Babylonian Rabbi's remark is true almost to a point. Prof. Mahler's Zeitrechnung der Juden euabled us to proceed to its verifieation for the period of time extending from 4067 to 6000 A.M. with the result that for the first cycle the concordance is absolutely perfeet in all the Higgulim, and for the seeond cycle the eoneordance is also perfeet up to the $16^{\text {th }}$ year in each Higgul, while as to the $17^{\text {th }}$ a deviation occurs in the years 5337, 5584, and 5831 which are deficient instead of being redundant, but are immediately followed by 5338,5585 , and 5832 which ought to be deficient and are redundant thus making up for the loss of one day in the preceding years and restoring the coneordanee which had momentarily been disturbed. The year $19^{\text {th }}$ of this second cycle offers no difference whatever in any of the Higgulim.
So far we eannot say we have found any substantial fault in Nahshon's theory, and what follows will confirm our belief in the essentials contained therein. We shall see presently how the verification of these two partieular
eycles will serve direetly our purpose, but we have not limited our scrutiny to what was strictly necessary, and, extending the field of our research, we have taken at random the eighth cycle of the Higgul 4067 which begins with the year 4200 . In comparing this with the corresponding eycles in the following Higgulim it is true that we have found a greater number of discrepancies, but none of them were such as to shake our faith. We have, on the contrary, always found that every disturbanee in one year was counteracted by a subsequent disturbance of the reverse character which had the effect of reestablishing at once the imperiled harmony. So the first year of the eighth cycle in each Higgul is redundant, cxcept 5929 which is deficient, but again the second year of the samc cyele is in all cases deficient and only 5930 is redundant; and, while the third and fourth cycles show no variance of any kind, we see that the fifth has one year, 5933, which loses two days by being deficient instead of redundant, and then makes up for the loss by gaining one day in 5934 which is normal instead of, like the others in the same rank and cycle but in different Higgulim, being deficient and again by gaining one more day in 5935 which ought to be normal but is redundant. This is a beautiful instance of slow compensation, after which comes a ycar, the eighth, exhibiting no variance throughout the Higgulim and leading us to the handsome groups of the years ninth and cleventh which in the first four eycles are alternatively redundant and deficient, while in the last four cycles are, by way of compensation, alternatively deficient and redundant, the
intervening tenth year showing only ritual differences whieh by no means affect its duration. The years $12^{\text {th }}-19^{\text {th }}$ of the eighth cycle are all alike in every Higgul.

The facts hitherto observed make us feel positive that a comparison of the other cyeles would show more freaks of an analogous character but equally harmless as to the keeping up of concordances, and we will proceed to the inspection of cycles twclfth and thirtcenth in which, jointly with the first and second, are enframed the dates of the documents.

With regard to the formcr, no varianee whatever will be found in the first five Higgulim, and discrepancies are only notieeablc in the deficient years 5521 and 5768 which in the ordinary course ought to be redundaut and are deficient; but subsequent discrepancies manifesting themsclves in the redundant years 5523 and 5770 , which in their turn ought to be defieient, bring back again after a twelvemonth of respite the temporarily shaken balance, whilc exaetly the same process of alternation recurs afresh in 5526 and 5773 on one hand, and in 5527 and 5774 on the other.
With regard to the latter which is the last cycle in the Higgul, a perfect similarity obtains between the first and the second ligggul, and when we come to the others, we find that the years $4790,5037,5284,5531$, and 5778 which ought to be redundant are normal, while by the usual reciprocity the years $4791,5038,5285$, 5532 , and 5779 are redundant instead of being normal.

The conclusion to be drawn from the foregoing
observations is that Nahshon's statement is accurate on the whole, and that taking as a basis the fact that in every Higgul evolve, with only insignificant oscillations, 247 years each equal in length to the year corresponding to it in all other Higgulim we can confidently apply the present system of the Jewish calendar to all centuries anterior to Mahler's tables who has started them from the year 240 A.D. But before we commence the work of retrospective construetion it must be noted that a Hebrew cycle is not, despite all devices, equal to a period of 19 Christian years, and that when we say, for example, ten centuries, while meaning exactly one thousand of the latter, we must not lose sight of the circumstance that there is in the Hebrew calendar a small fraetion excceding that number of years. So, taking for convenience's sake a number of undivided cycles, we will observe that, whercas the Jewish year in 249 A.D. began on September $25^{\text {th }}$, in 1256 A.D. (i.e. after a lapse of 1007 years) it began on September $21^{\text {st }}$, similar differences offering themselves if the comparison be carried into other periods. That the variance was not considered impossible of being fixed with a certain degree of precision will be seen when it is borne in mind that the students of the Hebrew calendar, just working back as we are doing now for our demonstration, give the $7^{\text {th }}$ October as the corresponding day of the Christian calendar to the first day of the year in which the world was created according to the Synagogue, and when one considers that its anniversary in the first year ( 5987 A.M. $=2225$ A.D.) of the last cycle in Mahler's table will coincide with the $3^{\text {rd }}$ October.

These two dates, $7^{\text {th }}$ October and $3^{\text {rd }}$ October, indicate the variance between the beginning of the world and the end of its sixth millennium; but, as we must reckon the 15 days of the leaps caused and to be caused in our present calendar through the Gregorian reformation, the apparent difference of 4 days between the above dates will be brought up to 19 which represent the real variance between the two calendars, Christian and Hebrew, in the eourse of 6000 years, and yield a proportion of a little upwards of 3 days per thousand years.

With these positive results at hand, the drawing up of a calendar for the four cycles which enframe the dates of the various documents under examination will be a task offering no serious difficulties. The oldest (A) of the papyri bears a date identificd with the year 471 B.C. which corresponds with 3290 A.M., but in order to start with the commencement of a cycle we will go two years further back, i. e. to 473 B.C. $=3288$ A.M., whilst for the sake of symmetry the fourth eycle will be given in full.
Of the four cycles thus obtained the first two will be the $12^{\text {th }}$ and $13^{\text {th }}$ of the Higgul starting in 3079 A.M., and the other two the $1^{\text {st }}$ and $2^{\text {nd }}$ of the Higgul starting in 3326 A.M.; consequently the calendars for each of thein will be shaped after the following models:

[^3]For the convenience of the reader we will copy here
the calendar for eyele 4276-4294 from Mahler's tables (page 75), allowing ourselves only the substitution of the names of the months for the Roman numerals used by the Viennese scientist, and the suppression of the day

| Year from creation | Tishri | Hesvan | Kislev | Tebeth | Shebat |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4276 | A.D. 515, 24: September | 24 October | 22 November | 22 December | A.D.516,20 January |
| 4277 | (" 516, 12 September | 12 October | 11 November | 11 December | " 517,9 January |
|  |  | 2 October | 1 November | 1 December | 30 December |
|  | - 51822 September | 22 October |  | 19 Deeember | " 519, 17 Jamary |
| 4279 | " 518, 22 September |  | 8 November | 8 December | " 520, 6 Jmunary |
| 4280 | " 519, 10 Scptcmber | 10 October |  |  | 26 December |
| 4281 | " 520, 29 August | 28 September | 28 October | 27 November |  |
|  | 521 | 18 October | 17 November | 17 December | " 522, 15 danuary |
|  | " ${ }^{\prime \prime}$ 522,8 Sept | 8 October | 6 November | i) December | " 523, 3 damuary |
|  |  | 26 October | 24 November | 24. Deecmbor | " 524, 22 January |
| 4284 | 52 | 14 October | 13 November | 13 December | " 525, 11 Jamary |
| 4285 | " |  | 3 November | 3 December | " 526, 1 lamary |
| 4286 | " 525, 4 Septembe | 4.0 cto | ${ }^{3}$ N November | 22 Decenter | " 527, 20 Jamary |
| 4287 | " 526, 24 September | 24 October | 22 November |  | " 527,20 dimmy |
| 4.288 | " 527, 13 September | r 13 October | 11 November | 10 December | " 528, 8 Jamuary |
|  | 528, 31 August | 30 September | 30 Oetober | 29 November | 281 ecember |
|  |  | 20 Octo | 18 November | 18 December | " 530, 16 January |
| 4290 | " 529, 20 September | 90 ct | 8 November | 8 December | " 531, 6 Jinuary |
| 4291 | / 530, 9 September |  |  | 26 November | Decomber |
| 4292 | " 531,30 Angust | 29 September | 28 Oetober |  |  |
| 4293 | / 532, 16 September | 16 October | 14 November | 14 December4 December | " 533, 12 Jenumry |
| 4294 | /1 533, 5 September | 5 October | 4. November |  | " 534, 2 danumy |

of the week on whieh the first of the Hebrew month fell as being of no serviee whatever to our purpose. Mahler's original table will, therefore, be presented in this modified form:

| Adar | Veadar | Nissan | Iyar | Sivan | Tammuz | Ab | Elul |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19 Pebruary | - | 19 March | 18 April | 17 May | 16 June | 15 July | 14 August |
| 8 February |  | 9 March | 8 A pril | 7 May | 6 June | 5 July | 4. Augusi |
| A.D. 518, 29 January | 28 February | 29 March | $2 \delta$ April | 27 May | 26 June | 25 July | 24 Angust |
| 16 February | - | 17 March | 16 April | 15 May | 14 June | 13 July | 12 Angust |
| 5 February | - | 5 March | 4 April | 3 May | 2 June | 1 July | 31 July |
| 25 January | 24. Fehruary | 25 March | $24 \Lambda^{\text {pril }}$ | 23 May | 22 June | 21 July | 20 Augusi |
| 14 February | - | 15 March | $14 . \Lambda$ pril | 13 May | 12 June | 11. July | 10 August |
| 2 February | 4 March | 2 April | 2 May | 31 May | 30 June | 29 July | 28 August |
| 21 February | - | 21 March | 20 April | 19 May | 18 June | 17 July | 16 August |
| 10 Febriary | - | 11 March | 10 April | 9 May | 8 June | 7 July | 6 August |
| 31 January | 2 March | 31 Marela | 30 April | 29 May | 28 June | 27 July | 26 August |
| 1.9 February | - | 20) March | 19 April | 18 May | 17 June | 16 July | 15 Angust |
| \% February |  | 7 March | ${ }_{6}$ April | 5 May | 4 June | 3 July | 2 August |
| A 1. 529, 27 Jamary | 20 February | 27 Mareh | 26 April | 2.) May | 24 June | 23 July | 22 August |
| 15 Tebruary |  | 16 March | 15 April | $14 . \mathrm{May}$ | 13 June | 12 July | 11 August |
| 5 Pebruary | - | 6 Warch | 5 April | 4 May | 3 June | 2 July | 1 August |
| d.1). 532, 2f dammary | 2.3 lebruary | 23 March | 22 $\Lambda_{\text {pril }}$ | 21 May | 20 June | 19 July | 18 August |
| 11 February |  | 12 Mareh | 11 April | 10 May | 9 June | 8 July | 7 August |
| 1 February | 3 March | 1 April | 1 May | 30 May | 29 June | 28 July | 27 August |

This table, while showing the working of the Hebrew Calendar in a period subject to no dispute or doubt, will supply the means of checking the precision of the other tables construeted by ourselves on the above stated principles. It will be seen that the $1^{\text {st }}$ Tishri in 4276 A.M. fell on the $24^{\text {th }}$ September, but as our first eycle starting in 3288 A.M. is separated from the latter by a backwards running interval of about 1000 years, there will be in the variance between the two calendars a diminution of 3 days which will cause the $1^{\text {st }}$ Tishri 3288 to be identified with the $27^{\text {th }}$ Seltember instead of with the $24^{\text {th }}$.

Going now to the Egyptian part of Mahler's tables we will find on page 20 that in the year $473 \mathrm{~B} . \mathrm{C}$. ( $=$ to our 3288 A. M.) the $15^{\text {th }}$ September was the $1^{\text {st }}$ Payni, and an easy calculation will show that the $27^{\text {th }}$ September was the $13^{\text {th }}$ of that Dgyptian month. It remains now, with the observance of the usual rules in the making of calendars with equivalences, to build up one iu which the identification of the Hebrew dates should be no longer with the Roman-Christian as in Mahler's work, but with the Lgyptian. This we have done and here we produce the fruit of our labour:

> Hebrew-Egyptiau Calendars from 3288 to 3363 ^.M. $=473$ to 398 B.C.

ERRATA. A fow oversights in the ealendar tables, which do not affect any of The patyyri, are to be corrected as follows:
In the correspondences of A.M. 3290 , 10 , Thoth is to be read instead of 17 Th ; in 3293 , 11 Pbamenoth, 10 Pharmuthi and 10 Pabhon instead of 10 Pham., 9 P'barm. and 9 Pa. - In 3315, 13 Athyr instcad of 11 A. - 1 n 3331, which is Deficient, the Dgyptian equivalences from Tebeth to Ab , both inclusive, must be reduced by one unit thus: $26 \mathrm{M} . ; 20 \mathrm{Th}$. P'l. and A.; 19 (h. and T.; 18 M . and Pham; 17 Pharm. - In 3343, 8 Phamenoth to be read instead of 18 Pham. On p. 15, "A. 1). 521 " has to be added before " 25 January" for the correspondence of Adar in A. M. 4281; and on p. $401.8,23$ Athir was printed instead of On
On p. 8 it is stated that the embolismic month always consists of 30 days. this its usual 29 , ruc, altbough in the inflated year the 30 days go to Adar instead The Euting papyrus was bought at Luxor (p. 2) in 1890
On p. 4 oa is to be added after carvied, and he before fell in the middle of p. 117 .
"Corresponds to" must be subsituted for "c. with" on p. 13; "an autograph petition" for" "an autographed p." on p. 119; "higher criticism" for "high c." on b. 135, "and not of matle"" for "a. n. o. material" on p. 16 I ; meeds for ueeding on p. 177 ; ta for la on p. 179; doos for do in the widdte of "p. 185, and in the
contaote of p. 189 "in the ", (the papyri) for "in " $l^{\prime \prime}$ ".

## TABLE A

HEBREW-EGYPTIAN CALENDAR FOR THE CYCLE
Constructed on the model of Mahler's tables.

| Year | Tishri | Heshran | Kislev | Tebeth | Shebat | Adar | Veadar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3288 nt | 13 Paydi | 13 Epiphi | 12 Mesore | 7 'Thoth | 6 Pbaophi | 0 Athyr |  |
| 3280 r. | 2 Payni | 2 Epiphi | 2 Mesore | 2 Epagoneral | 26 Thoth | 26. Phtophi |  |
| 3290 R . | 22 Pabhon | 22 Payni | 22 Epiphi | 22 Mesore | 17 Thoth | 16 Phnophi | 16Athyr |
| 3291 d. | 12 Payni | 12 Epiphi | 11 Mcsore | 5 Thoth | 4 Phrophi | 4 Albyr | - |
| 3292 ı1. | 30 Pahhon | 30 Payni | 29 Epiphi | 29 Mesore | 23 Theth | 23 Phaophi |  |
| 3293 R . | 19 Pahbur | 19 Pryni | 19 Epiphi | 19 Mesore | 13 Thoth | 13 Phnopli | 13Athy |
| 3294 r. | 0 Papnit | 9 Epiphi | 9 Mesore | 4 Tl ¢oth | 3 Phaphi | 3 Allyr |  |
| 3295 D. | 29 Pablion | 29 Paysí | 28 Eptphi | 27 Mesore | 21 Ithoth | 21 Plnophi | 21 Athys |
| 3296 n . | 17 Payni | 17 Epiphi | 16 Mesore | 11 Thoth | 10 Phaophi | 10 Athyr |  |
| 3297 r. | 6 Payni | 6 Epiphi | 6 Mesore | 1 Thoth | 30 Thoth | 30 Phaophi | - |
| 3298 R . | 26 Pahhon | 26 Payni | 26 Epiphi | 26 Mesore | 20 Thoth | 20 Phaophi | 20 Athy |
| 3299 n. | 16 l ayni | 16 Epiphi | 15 M mare | 10 Thoth | 9 Pliaophi | 9 Athyt | - |
| 3300 d | 5 Payn | 5 Epipli | 4 Mesore | 3 Eprgonenal | 27 Thoth | 27 Phaophi | - |
| 3301 R . | 23 Palikon | 23 Payni | 23 Epiphi | 23 Mesore | 17 Thoth | 17 Plaophi | 17 Athy |
| 3308 nt. | 13 Payni | 13 Epiphi | 12 Mesore | 7 Thoth | 6 Pbaophi | 6 Athys | - |
| 3303 r. | 2 Pey | 2 Epiphi | 2 Mesore | 2 Epagonenal | 26 Thoth | 26 Phoophi |  |
| 3304 D. | 29 Pahlom | 22 Pryni | 21 Epiphi | 20 Mesore | 14 Tloth | 14 Phaophi | 14Athy |
| 3305 n . | 10 Payn | 10 Epiphi | 9 Mesore | 4 Thoth | 3 Phatophi | 3 Athyr |  |
| 3306 D . | 89 Pahhon | 29 Payni | 28 Epiphi | 87 Mesore | 21 Thoth | 21 Pheophi | 21 Nthy |

3288-3306 A.M. CORRESPONDING TO 473-455 B.C.
Basis: B.C. 473 , 1st Payni $=15^{\text {th }}$ September.

| Nissan | Iyar | Sivan | Tammuz | Ab | Elut | Total of days |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 Choilk | 5 Tybi | 4 Melhir | 4 Phamenoth | 3 Pharmuthi | 3 Pahhon | 354 |
| 25 Athyr | 25 Choint | 2.4 Tybi | 24 Mohbir | 23 Phamenoth | 23 Pharmuthi | 355 |
| 15 Choilak | 15 Tybi | 14 Mehuir | 14 1'bamenoth | 13 Pharmuthi | 13 Pahhon | 385 |
| 3 Chorak | 3 Tybi | 2 Mehhir | 2 Phamenoth | 1 Pharmuthi | 1 Pahhon | 353 |
| 22 Athyr | 92 Choink | 21 Tybi | 21 Mchtit | 20 Phanienoth | 20 Pharmuthi | 354 |
| 12 Choiak | 12 Tybi | 11 Mehhir | 10 Plamenoth | 9 Pharmathi | 9 Pabhon | 385 |
| 2 Chouak | 2 Tybi | 1 Mehbir | 1 Plamenoth | 30 Phamenoth | 30 Pharmuthi | 35.5 |
| 20 Choiak | 20 'Iybi | 19 Mehbir | 19 Phamenoth | 18 Pharmathi | 18 Pahlon | 383 |
| 5 Choink | 9 Tybi | 8 Melhhir | 8 Phamenoth | 7 Pharmuthi | 7 Pahbon | 354 |
| 29 Athyr | 29 Choink | 28 Tybi | 28 Mehhir | 27 Phamenoth | 27 Pharmuthi | 355 |
| 19 Choink | 19 Tybi | 18 MehLir | 18 Phatnenoth | 17 Pharmuthi | 17 Pahlion | 385 |
| 8 Choiak | 8 Tybi | 7 Melhir | 7 Plamenoth | 6 Plarmuthi | 6 Pahihon | 354 |
| 26 Athyr | 26 Cthoial | 25 Tybi | 25 Melahir | 24 Pbamenoth | 24 Pharmuthi | 353 |
| 16 Choisk | 10 T'ybi | 15 Melhir | 15 Phamenoth | 14 Pharmuthi | 14 Paluon | 385 |
| 5 Choiak | 5 Tybi | 4 Mchbir | 4 Phamenoth | 3 Plarmuthi | 3 Palhon | 354 |
| 25 Athyr | 23. Cloink | 24.19 bi | 24 Mehhir | 23 Plamenoth | 23 Pharmuthi | 355 |
| 13 Choink | 13 Tybi | 12 Mchhir | 12 Phamenoth | 11 Pharmathi | 11 Pahlon | 383 |
| 2 Cholak | 2 Tybi | 1 Mehhir | 1 Phamenoth | 30 Phamenoth | 30 Pharmuthi | 354 |
| 20 Choinat | 20 Tybi | 19 Melbir | 10 Phamenoth | 18 Pharmuthi | 18 Pahbon | 383 |

Total of days in the cycle 6939

## TABLE B.

## HEBREW-EGYPTIAN CALENDAR FOR THE CYCLE

Constructed on the model of Mabler's tables.

| Year | Tishri | Heshvan | Kislev | Tebeth | Shebath | Adar | Veadar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3307 d. | 17 Payni | 17 Epiphi | 16 Mesore | 10 Thoth | 9 Phaophi | 9 Athyr | - |
| 3308 r. | 5 Payni | 5 Epiphi | 5 Mesore | 5 Epagomenal | 29 Thoth | 29 Phaophi | - |
| 3309 N . | 25 Pahhon | 25 Payni | 24 Epiphi | 24. Mesore | 18 Thoth | 18 Phaophi | 18 Athyr |
| 3310 r . | 14 Payni | 14 Epiphi | 14 Mesore | 9 Thoth | 8 Phaopli | 8 Athyr | - |
| 3311 d . | 4 Payni | 4 Epiphi | 3 Mesore | 2 Epagomenal | 26 Thoth | 26 Phaophi | - |
| 3312 N . | 22 Pablion | 22 Payni | 21 Epiphi | 21 Mesore | 15 Thoth | 15 Phaophi | 15 A 4 hyr |
| 3313 r. | 11 Payni | 11 Epiphi | 11 Mesore | 6 Thoth | 5 Phaophi | 5 Athyr | - |
| 3314 D . | 1 Payni | 1 Epipli | 30 Epiphi | 29 Mesore | 23 Thoth | 23 Phaophi | 23 Athyr |
| 3315 r . | 19 Payni | 19 Epiphi | 19 Mesore | 14 Thoth | 13 Phaophi | 11 Athyr | - |
| 3316 n . | 9 Payni | 9 Epiphi | 8 Mesore | 3 Thoth | 2 Phaophi | 2 Athyr | - |
| 3317 R . | 28 Pahhon | 28 Payni | 28 Epiphi | 28 Mesore | 22 Thoth | 22 Phaophi | 22 Athyr |
| 3318 r. | 18 Payni | 18 Epiphi | 18 Mesore | 13 Thoth | 12 Phaophi | 12 Athyr | - |
| 3319 n . | 8 Payni | 8 Epiphi | 7 Mesore | 2 Thoth | 1 Phaophi | 1 Athyr |  |
| 3320 D. | 27 Pahhon | 27 Payni | 26 Epiphi | 25 Mesore | 19 Thoth | 19 Phaophi | 19 A thyr |
| 3321 r. | 15 Payni | 15 Epiphi | 15 Mesore | 10 Thoth | 9 Phaophi | 9 Athyr | - |
| 3322 n . | 5 Payni | 5 Epiphi | 4 Mesore | 4 Epagomenal | 28 Thoth | 28 Plaophi | - |
| 3323 D. | 24 Pahhon | 24 Payni | 23 Epiphi | 22 Mesore | 16 Thoth | 16 Phaophi | 16 A thyr |
| 3324 | 12 Payni | 12 Epiphi | 12 Mesore | 7 Thoth | 6 Phaophi | 6 Athyr | - |
| 3325 R. | 2 Payni | 2 Epiphi | 2 Mesore | 2 Epagomenal | 26 Thoth | 26 Phaophi | 26 Athyr |

3307-3325 A.M. CORRESPONDING TO 454-436 B.C.
Basis : B.C. 473, 1st Payni $=15^{\text {th }}$ September.

| Nissan | Iyar | Sivan | Tammuz | Ab | Elnl | Total of days |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 Choilak | 8 Tybi | 7 Mehhir | 7 Phamenoth | 6 Pharmuthi | 6 Pahhon | 353 |
| 28 Athyr | 28 Choiak | 27 Tybi | 27 Mehhir | 26 Phamenoth | 26 Pharmuthi | 355 |
| 17 Choïak | 17 Tybi | 16 Mehhir | 16 Plamenoth | 15 Pharmuthi | 15 Pahhon | 384 |
| 7 Choiak | 7 Tybi | 6 Mehhir | 6 Phamenoth | 5 Pharmuthi | 5 Pahlion | 355 |
| 25 Athyr | 25 Choiak | 24 Tybi | 24 Mehhir | 23 Phamenoth | 23 Pharmuthi | 353 |
| 14 Choiak | 14 Tybi | 13 Mehhir | 13 Phamenoth | 12 Pharmuthi | 12 Pabhon | 384 |
| 4 Choiak | 4 Tybi | 3 Mehhir | 3 Phamenoth | 2 Pharmuthi | 2 Pahlion | 355 |
| 92 Choïak | 22 Ty hi | 21 Mehhir | 21 Phamenoth | 20 Pharmuthi | 20 Pahhon | 383 |
| 12 Choïak | 12 Tybi | 11 Mehhir | 11 Phamenoth | 10 Pharmuthi | 10 Pahhon | 355 |
| 1 Choiak | 1 Tybi | 30 Tybi | 30 Mehhir | 29 Phamenoth | 29 Pharmuthi | 354 |
| ) Choïak | 21 Tybi | 20 Mehhir | 20 Phamenoth | 19 Plarmuthi | 19 Pahhon | 385 |
| 11 Choïak | 11 Tybi | 10 Mehhir | 10 Phamenoth | 9 Pharmuthi | 9 Pahhon | 355 |
| 30 Athyr | 30 Choiak | 29 Tybi | 29 Mehhir | 28 Phamenoth | 28 Pharmuthi | 354 |
| 18 Choiak | 18 Tybi | 17 Mehhir | 17 Phamenoth | 16 Pharmuthi | 16 Pahhon | 383 |
| 8 Choiak | 8 Tyhi | 7 Mchhir | 7 Phamenoth | 6 Pharmuthi | 6 Pahlion | 355 |
| 27 Athyr | 27 Choïak | 26 Tybi | 26 Mehhir | 25 Phamenoth | 25 Pharmuthi | 354 |
| 15 Choiak | 15 Tybi | 14 Mehhir | 14 Phamenoth | 13 Pharmuthi | 13 Pahhon | 383 |
| 5 Choiak | 5 Tybi | 4 Mchhir | 4 Phamenoth | 3 Pharmuthi | 3 Pahhon | 355 |
| 25 Choiak | 25 Tyhi | 24 Mchhir | 24 Phamenoth | 23 Pharmuthi | 23 Pahhon | 385 |

Total of days in the eycle 6940

## Table

## HEBREW-EGYPTLAN CALENDAR FOR THE CYCLE

Constructed on the model of Mahler's tables.

| Year | Tishri | Heshvan | Kislev | Tebeth | Shebat | Adar | Veadar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3326 n . | 22 Payni | 22 1Ppiphi | 21 Mesore | 16 Thoth | 15 Phaophi 15 Alhyr |  | -- - |
| 3327 d. | 11 Payni | 11 Epiphi | 10 Mesore | 4 Thoth | , 3 Phaophi | 3 Athyr | - |
| 3328 R. | 29 Pahlion | 29 Payní | 29 Rpiphi | 29 Mesore | 12:3 Ihoth | 23) Phaphi | 23 Athyr |
| 3329 n . | 19 l'ayni | 19 19piphi | 18 Mesore | 13 'Thoth | ; 12 Phaophi | - | -- |
| 3330 r. | 8 layni | 8 Epiphi | 8 Mesore | 3 Thoth | 2 Phaophi | 2 Athyr | 21 Athyr' |
| 3331 D. | 28 Pahhon | 28 Payni | 27 Hpiphi | 27 Mesore | 121 Thoth | 21 Phaophi |  |
| 3332 n . | 16 Payni | 76 lipiphi | 15 Mesore | 10 'thoth | 9 Phaophi | 9 Athyr |  |
| 3333 R. | 5 Payni | 5 Epiphi | 5 Mesore | 5 Epagomenal | 29 Thoth | 29 Phaophi | 29 Athyr |
| 3334 d. | 25 P'ayni | 25 Epiphi | 2.l Mesore | $18^{\prime}$ 'Thoth | 17 Phaophi | 17 Athyr |  |
| 3335 | 13 Payni | 1314 p phi | 13 Mesore | 8 Thoth | 7 Phaophi | 7 Ahyr |  |
| 3336 N . | 3 Payni | 3 Ipiphi | 2 Mesore | 2 Epagomenal | 26 Thoth | 26 Phaophi | 26 Athyr |
| 3337 r. | 22 Payni | 122 lipiphi | 22 Mesore | 17 Thooth | 16 l'haophi | 16 A liyr |  |
| 3338 | 12 Prayni | 12 Epiph | 11 Mesore | 5 Thoth | 4. Phaophi | 4 Athyr |  |
| 3339 N . | 30 Pahhon | 30 Payni | 29 lepiphi | 29 Mrsore | 23 Thoth | 23 Phaophi | 23 Athyr |
| 3340 r . | 19 Payni | 19 If Iphi | 19 Mesore | 14 Thoth | 13 l'haphi | 13 Athyr | - |
| 3341 r . | 9 Payni | 9 L [iphi | 9 Mesore | 4 Thoth | 3 Phaophi | 3 Athyr |  |
| 3342 D. | 29 Pahhon | 29 Payni | 28 liphip | 27 Mesore | 21 Thoth | 21 Phaophi | 21 Athyr |
| 3343 n . | 17 Payni | 17 Lpiphi | 16 Mesor | 11 Thoth | 10 Phaophi | 10 Athyr | - - |
| 3344 R . | 6 Payni | 6 Epiphi | 6 Mesore | ] Thoth | 30 Thoth | 30 Phaophi | 30 A ihyr |

:3926-3344 А.M. CORJESPONDING TO 435-417 B.C.
Basis: B.C. 473, 1st Payni $=15^{\text {th }}$ September.

| Nissan | Iyar | Sivan | Tammuz | Ab | Elul | Total of days |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14.4 Choïak | 14 'Tybi | 13 Mohhir | 13 Phamenoth | 12 Plarmuthi | 12 Pahhon | 354 |
| 2 Choïak | 2 'lyli | 1 Mehhir | 1 Phamenoth | 30 Phamenoth | 30 l'harmuthi | 353 |
| 22 Choiak | 22 Tybi | 21 Mehhir | 21 Phamenoth | 20 Pharmuthi | 20 Pahhon | 385 |
| 11 Choiak | 11 Tybi | 10 Mohhir | 10 Phanenoth ! | 9 Pharmuthi | 9 Pahhon | 354 |
| 1 Choiak | 1 ''ybi | 30 'lyli | 30 Nehhir | 29 Plamenoth | 29 Pharmuthi | 355 |
| 2) Choriak | 20 'Tybi | 19 M ${ }^{\text {a }}$ (hhir | 19 Phamenoth | 18 Plarmuthi | 17 Pahhon | 383 |
| S Choiak | 8 Tyhi | 7 Mehhir | 7 Phamenoth | 6 Pharmuthi | 6 Pahhon | 354 |
| s Choiak | 28 'Tybi | 27 Mchhir | 27 Phamenoth | 26 Pharmuthi | 26 Pahhon | 385 |
| 16 Choiak | 16 'Iyli | 15. Mehhir | 15 Phamenoth | 14 Pharmuthi | 14 Pahhon | 353 |
| if Choira | 6 T'yli | 5 Mehhir | 5 Phamenoth | 4 Pharmuthi | 4 Pahhon | 355 |
| 25. Chönk | $25 . \mathrm{Tylni}$ | 24 Mehhir | 24 Phamenoth | 93 Pharmuthi | 23 Pahhon | 384 |
| 15.5 Choink | 15 'rybi | 14Mchlir | 14 Phamenoth | 1:3 Phamenoth | 13 Plarmuthi | 355 |
| 3 Choiak | 3 'ry | 2 Mehhir | 2 Phamenoth | 1 Pharmuthi | 1 Pahhon | 353 |
| 92 Choink | 22 'Tybi | 21 Mehhir | 21 Phamenoth | 20 Pharmuthi | 20 Pahhon | 384 |
| 12 Choïrk | 12 Tybi | 11 Nelluir | 11. Phamenoth | 10 Pharmuthi | 10 Pahhon | 355 |
| 2 Choiak | 2 Tybi | 1 Meluhir | 1 l hamenoth | 30 Plamenoth | 30 Pharmuthi | 355 |
| $\therefore$ Choiak | 20 'Tybi | 19 Muhhir | 19 lhamenoth | 18 Pharmuthi | 18 Pahhon | 383 |
| 9 Chorak | 9 Tybi | 8 Achhir | 181 hamenoth | 7 Pharmuthi | 7 Pahhon | 354 |
| 29 Choïah | 29 Tybi | 28 Mchhir | 28 Plamenoth | 27 Pharmuthi | 27 Puhhon | 385 |

## TABLE .

HEBREW-EGYPTIAN CALENDAR FOR THE CYCLE $345-3363$ A.M. CORRESPONDING TO 416-398 B.C.
Constructed on the model of Mahler's tables. Kris: B.C. 473 , 1st Payni $=15$ th September.

| Year | Tishri | Heshvan | Kislev | Tebeth | Shebat | Adar | Veadar | 1ssan | Iyar | Sivan | Tammuz | Ab | Elul | Total of days |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3345 r. | 26 Payni | 26 Epiphi | 26 Mesore | 21 Thoth | 20 Phaophi | 20 Athyr | - | 1 Cboiak | 19 Tybi | 18 Mehhir | 18 Phamenoth | 17 Pharmuthi | 17 Pahbon | 355 |
| 3346 n . | 16 Payni | 16 Epiphi | 15 Mesore | 10 Thoth | 9 Phaophi | 9 Athyr | - | Clowak | 8 Tybi | 7 Mehbir | 7 Phamenoth | 6 Pharmuthi | 6 Pahhon | 354 |
| 3347 D. | 5 Payni | 5 Epiphi | Mesore | 3 Epagomenal | 27 Thoth | 27 Phaophi | 27 Athyr | - Clumak | 26 Tybi | 25 Mehhir | 25 Phamenoth | 24 Pharmuthi | 24 Pahhon | 383 |
| 3348 r. | 23 Payni | 23 Epiphi | 23 Mesore | 18 Thoth | 17 Phaophi | 17 Athyr | -- | 1 Clomak | 16 Tybi | 15 Mehhir | 15 Phamenoth | 14 Pharmuthi | 14 Pahhon | 355 |
| 3349 n . | 13 Payni | 13 Tpiphi | 12 Mesore | 7 Thouh | 6 Phaophi | 6 Athyr | - | Choriak | 5 Tybi | 4 Mehhir | 4 Phamenoth | 3 Pharmuthi | 3 Pahhon | 354 |
| 3350 D. | 2 Payni | 2 Epiphi | 1 Mesore | 30 Mesore | 24 Thoth | 24 Phoophi | 24 Athyr | Choiak | 23 Jybi | 22 Mehhir | 22 Phamenoth | 21 Pharmuthi | 21 Pahhon | 383 |
| 3351 r. | 20 Payni | 20 Epiphi | 20 Mesore | 15 Thoth | 14 Phaophi | 14 Athyr | - | Chomak | 13 Tybi | 12 Mehhir | 12 Phamenoth | 11 Pharmuthi | 11 Pahhon | 355 |
| 3352 R . | 10 Payni | 10 Fpiphi | 10 Mesore | 5 Thoth | 4 Phaophi | 4 Athyr | 4 Choiak | T | 3 Mehhir | 2 Phamenoth | 2 Pharmuthi | 1 Pahhon | 1 Payni | 385 |
| 3353 n . | 30 Payni | 30 Epiphi | 29 Mesore | 24 Thoth | 23 Phaophi | $23 \Lambda \mathrm{hyyr}$ | - | \% Chumk | 22 Tybi | 21 Mehhir | 21 Phamenoth | 20 Pharmuthi | 20 Pahhon | 354 |
| 3354 d. | 19 Payni | 19 Epiphi | 18 Mesore | 12 Thoth | 11 Phaophi | 11 Athyr | - | 1 M Clounk | 10 'l'ybi | 9 Mehhir | 9 Phamenoth | 8 Pharmuthi | 8 Pahhon | 353 |
| 3355 R . | 7 Payni | 7 Epiphi | 7 Mesore | 2 Thoth | 1 Phaophi | 1 Athyr | 1 Choiak | Wefamk | 30 Tybi | 29 Mehhir | 29 Phamenoth | 28 Pharmuthi | 28 Pahhon | 385 |
| 3356 n . | 27 Payni | 27 Epiphi | 26 Mesore | 21 'lhoth | 20 Phaophi | 20 Athyr | - | WVChumk | 19 Tybi | 18 Mehhir | 18 Phameuoth | 17 Pharmuthi | 17 Pahhon | 354 |
| 3357 r. | 16 Payni | 16 Epiphi | 16 Mesore | 11 Thoth | 10 Phaophi | 10 Athyr | - | 9 (ramak | 9 Tybi | 8 Mehhir | 8 Phamenoth | 7 Pharmuthi | 7 Pahhon | 355 |
| 3358 D. | 6 Payni | 6 Epiphi | 5 Mesore | 4 Tpagomenal | 28 Thoth | 28 Phaophi | 28 Allyr | If Comak | 27 'lybi | 26 Mehbir | 26 Phamenoth | 25 Pharmuthi | 25 Pahbon | 383 |
| 3359 n . | 24 Payni | 24 Fpiphi | 23 Mesore | 18 Thoth | 17 Phaophi | 17 Athyr | - | Tremonk | 16 Tybi | 15 Melhir | 15 Phamenoth | 14. Pharmuthi | 14 Pahhon | 354 |
| 3360 r. | 13 Payni | 13 Fpiphi | 13 Mesore | 8 Thoth | 7 Phaophi | 7 A | - |  | 6 Tyhi | 5 Mehhir | 5 Phamenoth | 4. Pharmuthi | 4 Jahhon | 355 |
| 3361 R. | 3 Payni | 3 Epiphi | 3 Mesore | 3 Epagomenal | 27 Thoth | 27 Phaophi | 27 Athyr | 亭 (Thenk | 26 Tybi | 25. Mehhir | 25 Thamenoth | 24. Pharmuthi | 24 Pahhon | 385 |
| 3362 d. | 23 Payni | 23 Epiphi | 22 Mesore | 16 Thoth | 15 Phaophi | 15 Athyr |  | LTChunk | 14 Tybi | 13 Mehhir | 13 Phamenoth | 12 Pharmuthi | 12 Pahlion | 353 |
| 3363 N. | 11 Payni | 11 Epiphi | 10 Mesore | 5 Thoth | 4 Phaophi | 4 Athyr | 4 Choiak |  | 3 Mehhir | 2 Phamenoth | 2 Pharmuthi | 1 Pahlion | 1 Payni | 384 |

Total of days in the cycle 6939*

* A thing worth pointing out is that the 76 Hebrew years yicld a total of 27.757 days, thils the same number of years in the Christian calendar (24 Sept. $515-23$ Sept. 591 ) including 19 interealary days for an equal number of leap years give an aggregate of 27.759 , thus showing in the Hebrew calendar a shortage of two days. This difference has already been explained; but what will strike more is the advance by 4 days of the Egyptian calendar at ${ }^{2}$ e, whelusion of eycles A, C, and D, and of 5 days at the end ot cycle B, which, however, is accounted for by the fact that in that calendar all years were equal in length, and no additions amel them, as in the other calendars, to slower at intervals their regular and oven course

The moment has come to take up the doeuments and consider them with the help of the two standards now set up before us. We will see first if their chronology can be said to be in harmony with the primitive system of the Jewish calendar which was based on the principle of only twelve lunations per year, and we will see next whether, this test failing to yield the result expected, the application of the reformed calendar as exhibited in the foregoing tables is capable of supplying more favourable evidence about the correctness of their datcs.

Everybody will admit that when two deeds are provided each with a double date, like the Hebrew and the Egyptian in our case, the interval bctween the two dates of the oue system must necessarily be equal to the interval between the two dates of the other system, and that when this matter-of-fact condition is not fulfilled there must be in those documents something of a suspicious nature. This much being granted, let us pick out papyri $D$ and $E$ whose dates are among those easiest to decipher. We will see that D which is of the $6^{\text {th }}$ year of Artaxcrxes'reign exhibits the Hebrew date $21^{\text {st }}$ Kislev, and E which is of the $19^{\text {th }}$ year of the same monarch's rule exhibits the Hebrew date $3^{\text {rd }}$ Kislev. The interval between the two is 4584 days which is the aggregate of 12 years (from $6^{\text {th }}$ to $18^{\text {th }}$ ) of 354 days each plus 336 days which elapsed fron the $21^{\text {st }}$ Kislev of the $18^{\text {th }}$ year to the $3^{\text {rd }}$ Kislev of the $19^{\text {th }}$. Turning now to the Egyptian dates we will see that papyrus D bears $1^{\text {st }}$ Mesore,
and papyrus E $10^{\text {th }}$ Mesorc, thus showing an interval between the two of 13 full years of 365 days each supplemented with 9 days running from the $1^{\text {st }}$ to the $10^{\text {th }}$ Mesorc, the total in days being

$$
13 \times 365+9=4754
$$

as against the 4584 days of the Hebrew datcs in the same documents, which means a variance of no less than 170 days between the two calendars.

This one experiment ought to be quite sufficient to show that the hypothesis of the Hebrew year consisting iuvariably of 12 lunations must not be insisted upon, and that it is necessary to regard the chronology of the documents under examination as ruled by a system built on some different principle. But there is no lack of further and more striking evidence for such a couclusion which receives immediate corroboration from papyri $B, D$, and $E$ showing in the long period of their 19 years the month of Kislev coufined in its advance within the extrenely narrow space of the two contiguous Egyptian months, Messore and Thoth, whereas the yearly shortage of 11 days would have yielded in these 19 years a total of 209 days, and thus have brought Kislev into contact not only with Mesore and Thoth, but with Phaophi, Athyr and as far as with Phamenoth which is the seventh mouth of the Egyptian calendar ${ }^{1}$ ).

[^4]By extending this method of reckoning to papyrus F we would find that in the twenty-fifth year of Artaxerxes'reign the same Hebrew month of Kislev must have fallen in Pahhon, thus eontradicting the statement of that papyrus according to which the 19th day of the latter Egyptian month would be identic with the $13^{\text {th }}$ or the $14^{\text {th }} \mathrm{Ab}$, and showing between the written date of the document and the result of our calculation a difference of at least three clear months: Elul, Tishri, and Heshvan.

A similar iuvestigation of papyri $\mathrm{H},{ }^{1}$ ) I , and K which are dated after Darius' reign would lead us to the remark that the concordance of Elul with Payni in the third or the fourth year of that king by the very fact of presupposing the same year a Kislev in Thoth precludes the concordance between these two months 4 years later, in the seventh or the eighth year of Darius, as well as the identity of Shebat and Atlyy another 6 or 7 years afterwards, in the thirteenth or the fourteenth of that monarch; Kislev $=\Lambda$ thyr, or at least Kislev $=$ Plaophi being required in the first case, and Shebat $=$ Phamenoth or at least Shelat $=$ Mchnir in the second.
Comparisons of a more complicated character could be made, but they would do anything but alter the purport of our inference which is to the effect tlat the uniform

[^5]Hebrew year of twelve lunations cannot be used as a standard to prove the chronological accuraey of the documents.

In the verification of the dates by means of the equivalence tables of pages $18-25$ we will leave out papyri C and $G$ whose gapes in the place of the dates no effort of the imagination could fill up in a way approaching satisfaction, and papyrus II which, strangely enough and unlike all others, gives only the months of Elul and $\mathrm{Pa}(y \mathrm{ni})$ as concomitant and no specificatiou of day for either; but we will include the sandstone inscription of the Cairo Museum which descrves all our attention on account of its bold statement סיון חו מהיר. In this test we will follow the Sayce-Cowley identification with the years B.C., and starting from papyrus. A we will examine it after the four readings proposed for its date which aecordingly might be
either the year 471 B.C. with $17^{\text {th }} \mathrm{Elul}=27^{\text {th }}$ Pahhon, and $18^{\text {th }}$ Elul $=28^{\text {th }}$ Pahhon.
or the year 470 B.C. with $17^{\mathrm{hl}} \mathrm{Elul}=27^{\mathrm{th}}$ Pahhon, and $18^{\text {th }}$ Elul $=28^{\text {th }}$ Pahhon.
Bearing in mind that 471 B.C. $=3290$ A.M. ${ }^{1}$ ) and 470 B.C. $=3291$ A.M. we will look in our table $A$, and find the following identifications:

$$
471 \text { B.C. } \begin{aligned}
1^{\text {st }} \text { Elul } & =13^{\text {th }} \text { Pahhon, } \\
17^{\text {th }} \text { Elul } & =29^{\text {th }} \text { Pahhon, } \\
18^{\text {th }} \text { Elul } & =30^{\text {th }} \text { Pahhon. }
\end{aligned}
$$

[^6]> 470 B.C. $1^{\text {ts }}$ Elul $=1^{\text {st }}$ Pahhon, $17^{\text {th }}$ Elul $=17^{\text {th }}$ Pahhon, $18^{\text {th }}$ Elul $=18^{\text {th }}$ Pahhon.

We are prepared to accept either of the two readings of the first year as correct, we will pass over the (trivial?) difference of two days, and declare the dates to be exact.

Wishing to corroborate this optimistic conclusion we will by a gigantic jump pass immediately to papyrus K which compared with our table D (3351 and 3352 A.M.) supplies these concordances for the four different readings proposed by the editors:

$$
\begin{aligned}
410 \text { B.C. } 1^{\text {tt }} \text { Shebat } & =14^{\text {th }} \text { Phaophi. } \\
23^{\text {d d }} \text { Shebat } & =6^{\text {th }} \text { Athyr. } \\
\text { 24 } 4^{\text {th }} \text { Shebat } & =7^{\text {th }} \text { Athyr. } \\
409 \text { B.C. } 1^{\text {st }} \text { Shebat } & =4^{\text {th }} \text { Phaophi. } \\
23^{\text {td }} \text { Shebat } & =26^{\text {th }} \text { Phaophi. } \\
24^{\text {th }} \text { Shebat } & =27^{\text {th }} \text { Phaophi }
\end{aligned}
$$

where again by taking either of the two days of the month in the first year as correct we would make the same allowance as for papyrus A, and so freely proclaim the chronological accuracy of another document.

So far, the current opinion that the papyri are authentic wonld seem to find a certain amount of support in this new test of ours, and should everything go on as smoothly as hitherto the only course left to the sceptic would seem to be to dispel away their doubts and join in the general rejoicings for the precious discovery. But the final judgment must be postponed until the other documents
prove also to be somehow in agreement with the same calendar tables. Unfortunately this is not the case, and when we turn to papyrus $D$ which purports to be of 459 B.C. $=3302$ A.M., table A tells us that in that year $1^{\text {st }}$ Kislev fell on $12^{\text {th }}$ Mesore, thus indicating that the $21^{\text {st }}$ Kislev which is the Hebrew date of that papyrus must have fallen on the $2^{\text {nd }}$ Epagomenal, and convincingly showing the absolute impossibility of its being identified with the $1^{\text {st }}$ Mesore as the papyrus would have us to believe. Between the real correspondence $21^{\text {st }}$ Kislev $=2^{\text {nd }}$ Epagomenal and the identification $21^{\text {st }}$ Kislev $=1$ st Mesore of the document there is the enormous difference of 31 days, and nothing could account for it, since the fluctuations of the Jewish calendar which one might call for help never cause variances exceeding the limit of 26 days.

The turn comes now of the sandstone inscription which claims to be of the year 458 B.C. $=3303$ A.M., and offers the sharp identification of Sivan with Mehhir. Table $A$ shows that in that year Sivan began on the $24^{\text {th }}$ Tybi, so making at all events 23 days of it fall in Mehhir and giving some colour of truth to the identification. But the fact must not be overlooked that not very many years before that date, when Sivan set in nearly two thirds of Mehhir ( 18 days) were already gone, and that the gradual but steady progress of Sivan towards Phamenoth could not but make itself felt long before the latter was reached in 3352 and 3363 when $1^{\text {st }}$ Sivan actually fell on $2^{\text {nd }}$ Phamenoth (Table D). Under such circumstances the point-blank statement

טיון דו מחיד on the part of a contemporary will sound not a little singular to a good many of us. We will for a moment leave aside all the inferences which cannot fail to be drawn from the admission that papyri $A$ and K are chronologically correct, and, in order to show a curious imbroglio, we will in their stead regard as accurate the identification $21^{\text {st }}$ Kislev $=1^{\text {st }}$ Mesore of papyrus D. Taking this as a basis for the calendars of the remaining months of 3302 and of the whole 3303 A.M. we would obtain the following concordances:

and it would appear from the above that in the year 3302 only two days of Mehhir fell in Sivan, while in 3303, i. e. the very year of the inscription offering the unrestricted identification not only the whole of Sivan fell in Choiak and Tybi, but after its close another 8 days had to elapse before Mehhir was reached.

Serious and weighty as they are, we must not stop
at the hitherto made observations and give a judgment at once, but, coming back to tables A-D with which we have consented to admit that papyri A and K keep pace, we will see if by a similar leniency of treatment any more documents can be saved.
Papyrus E is of 446 B.C. $=3315$ A.M., and identifies $3^{\text {rd }}$ Kislev with $10^{\text {th }}$ Mesore. But according to table B in the year 3315 the $1^{\text {bt }}$ Kislev fell on the $19^{\text {th }}$ Mesore, consequently $3^{\text {rd }}$ Kislev must have fallen on $21^{\text {st }}$ Mesore. The difference is of 11 days which cannot be accounted for since 3315 comes immediately after an embolismic year when, the balance between the two calendars being practically reestablished, the shortage of the Hebrew is at its commencement and aggregates to 11 days only at the end of the year, i. e. ten months after the 3 xd Kislev. A further consideration to be made is that $3^{\text {rd }} \mathrm{Kislev}=10^{\text {th }}$ Mesore inaplies $1^{\text {st }} \mathrm{Kislev}=8^{\text {th }}$ Mesore, but a look at our tables or at any Jewish calendar will show that after an embolismic year the variance as to the $1^{\text {st }}$ Kislev of that year from the $1^{\text {st }} \mathrm{Kislev}$ of the year which follows is always 20,19 or 18 days. Papyrus E, however, would reduce this variance to only 8 days, i. e. from $1^{\text {st }} \mathrm{Kislev}=30^{\text {th }}$ Epiphi in 3314 to $1^{\text {st }}$ Kislev $=8^{\text {th }}$ Mesore in 3315.

The chronology of papyrus $F$ which is supposed to be of the year 440 B.C. $(=3321$ A.M. $)$ and $13^{\text {th }}$ or $14^{\text {th }} \mathrm{Ab}=19^{\text {th }}$ Pahhon is no better than that of papyri D and E. Our table B showing that in 3321 A.M. the $1^{\text {st }} \mathrm{Ab}$ fell on the 6th Pharmuthi, it follows that the $13^{\text {th }}$ day of that Hebrew month fell on the $18^{\text {th }}$ of
the Egyptian eorresponding to it, and the 14 th of the former on the $19^{\text {th }}$ of the latter. There is, therefore, between the ealendar and the correspondenee supplied by the document a varianee of 31 days aeeording to one reading or of one elear month according to the other.

The 31 days' difference reealls to mind papyrus D where the variance is of equal length. But a very eurious sort of similarity it is, because, whereas papyrus D in exhibiting $21^{\text {st }} \mathrm{Kislev}=1^{\text {st }}$ Mesore shows to be in arrear of the calendar whieh identifies $21^{\text {st }}$ Kislev with $2^{\text {nd }}$ Epagomenal, papyrus F in giving $13^{\text {th }}$ or $14^{\text {th }} \Lambda \mathrm{b}=19^{\text {th }}$ Pahhon shows itself in advance of the calendar by which $14^{\text {th }} \mathrm{Ab}$ comes to be the equivalent of $19^{\text {th }}$ Pharmuthi. And no one must believe that we are wrangling here about trifles, as, after all reckoning is done, it will be found that we are confronted with a displaeement of no less than fourteen months, and a phenomenon of this description could not even be thought of in a calendar based on the 19-year eyele where the Hebrew and Egyptian dates attain an appreeiable degree of approximation every fourth or third year, and only the absence of the Julian interealary day in the Egyptian reckoning might bring about a discrepancy of that maguitude after the evolution of seventeen eenturies.
A displaeement of this extent would admittedly be possible with a ealendar based on the prineiple of twelve lunations per year, but even by that system 39 years would be required to make up by their
shortages a total of 429 days which would include the aggregate of one Egyptian year and 2 months, $365+60=425$. It is unfortunate, however, that the two papyri D (459 B.C.) and F (440 B.C.) should be separated from eaeh other by the meagre interval of 19 years only.

There remains now papyrus $J$ to be scrutinised. Aecording to the different readings that document would elain to be of one of the following dates:

416 B.C. $=3345$ A.M. $3^{\text {rd }}$ Kislev $=11^{\text {th }}$ or or 415 B.C. $=3346$ A.M. $12^{\text {th }}$ Thoth.

But according to our table D in the year 3345 the $1^{\text {st }}$ Kislev fell on the $26^{\text {th }}$ Mesore, consequently $3^{\text {rd }}$ Kislev fell on $28^{\text {th }}$ Mesore; from which there results a difference of 18 or 19 days ${ }^{1}$ ). Again, in the year 3346 the $1^{\text {st }}$ Kislev fell on the $15^{\text {th }}$ Mesore implying $3^{\text {rd }}$ Kislev $=17^{\text {th }}$ Mesore, and thus showing between calcudar and document a variance of 29 or 30 days ${ }^{\circ}$ ).

Giving in a nutshell the result of the scoond test, we shall say that by applying the nineteen-year eyele ealendar we could save only the first and last papyri, A and K , and even that not without exerting all our sympathy and goodwill. We must consequently try some other method which might have the power of

[^7]redeeming them all alike from the impending doom, and the advantage of propping up the faith which by now must have sustained a terrific shake even in the minds and hearts of the most devoted adrocates of their authenticity.

We are willing to start a new trial, the more so that we fully acknowledge the anachronism involved in the foregoing test for which it was necessary to presume that the nincteen-year cycle should have been in operation among the Jews as early as nbout half a century before it was proposed by Meton to the Athenians. But, while this would scem preposterons, we cannot help admitting that, if in the fifth century B.C. there were a Jewish community anywhere in Egypt the striking conflict between their own lunar year and the course of the seasons on the one hand, and the system of the natives which offered only a slow, imperceptible difference on the other, must have made them feel both the need for the settlement of their calendar and the expediency of adapting to their own requirements and customs the example set up to them by their hosts. The latter had long before the Jewish immigration rectified with something approaching perfection the defeet of their calendar by adding the five epagomenal days; and had there not been the difficulty of the monthly sacrifice which was bound to coincide with the renewal of the moon the Jews would have gone the easy way, and adopted the same process, innovating in as much as in increasing to eleven the number of
additional days. For this important reason they were compelled, instead of an annual levelling, to content themselves with an equilibrium which might come off after a certain number of years, and the idea that such a result could readily be obtained every eight years must have sprung up in their minds immediately they thought of the convenience of a reform. For, eight Hebrew years offer, as against an equal number of years in the Egyptian calendar, a total shortage of 88 days, for the filling up of which the intercalation of three additional months, one of thirty days to the lenght of the third year and one of twenty-nine days each to the length of the sixth and the eighth, would be the easiest and the most practical of processes. We may add, that in speaking of a period of eight years we are not perhaps wandering in the world of imagination, but have lighted upon the first attempt actually made by the Jews towards the establishment of a regular calendar. In fact, an inspection of the present system of the cycle will show that it consists of two unequal parts, one of eight and another of eleven years. This division makes alnost certain the conclusion that the first part represents an original grouping which may well have been deemed satisfactory up to the time of the Julian reform, but was found to be defective when the new arrangement made in the civil commonwealth introduced a more correct calendar, with the result that the religious authorities of the Jews came to the resolution of adding to the original system another period of eleven years, thus adopting the Meton cycle which brought them nearer
to the possibility of eliminating at set intervals all anomalies derived from the little disagreements between the conventional $365^{1 / 4}$ days and the real length of the astronomical year.

But, be this as it may, one will admit that our hypothesis of the eight-year period, while affording the means of bridging over in the shortest possible time the gaps of the Hebrew calendar, is the only plausible course left to try for the rescue from positive perdition of the documents under examination. The difliculty now arises about the fixing of the date at which this period of eight years may have been introduced in the Hebrew chronology, and in the absence of all direct information on the matter it remains to see whether the dates of the papyri are in such a relation to one another as to make it possible to determine which rank the year of each document oceupied in its own period. The absolute independence of each such period from all those which preceded or followed it renders it unnecessary to know the place of anyone of them in the wide course of ages, and if we can do as much as finding out the order in the succession of the 25 years of Artaxerxes' reign over which spread the papyri from $B$ to $F$ and the sardstone inscription our object is fully attained.

We will start our work in this direction by taking up papyrus D whose date, $21^{\text {st }}$ Kislev $=1^{\text {st }}$ Mesore of the $6^{\text {th }}$ year of Artaxerxes is, as to the reading, subject to no doubt or dispute, and we will construct as follows the calendar for that particular ycar:

| Tishri | Heshvan | Kislev | Tebeth | Shebat | Adar |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12 Pahhon | 12 Payni | \|ll Epiphi | 11 Mesore | 5 Thoth | a Phaophi |
| Nissan | Iyar | Sivan | Tammuz | Ab | Elul |
| 4 Athyr | 14 Choiak | $3 \text { Tybi }$ | 3 Mehhir | 2 Phamenoth | 2 Pharmuthi |

then, continuing our operation, we will obtain this calendar for the $7^{\text {th }}$ year of Artaxerxes reign:

| Tishri | 1lesham | Kislev | Tebeth | Shebat | Adar |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Pahhon | 'l l'ayni | 30 Payni | 30 1piphi | 29 Mesore | 24 Thoth |
| Nissan | lyar | Sivan | Tammuz | $\Lambda b$ | Elul |
| 23 Phaophi | 23 Athyr | 22 Choilak | 22 Tybi | 121. Mehhir | 21 Phamenoth |

If we cone now to consider the so constructed calendar of these two years we will notice at once that in the sixth of Artaxerxes' rule only two days of Sivam, the $29^{\text {th }}$ and the $30^{\text {th }}$, fell in Mchhir, and that in the seventh year of that monarch Sivan had disappeared long before Mehhir stepped in.
This result is in hopeless conflict with the sandstone inscription which with no restriction or qualification whatever indentifies Sivan with Mehhir just in that year.

But this discrepancy, serious though it is, far from cutting here and now the ground under our feet has inerely to be taken as an indication that one of these two years must be supposed to have been embolismic.

In fact, if we regard the first as such their calendars will offer the following eorrespondences:

| Year of Artax. | Tishri | Heshvan | Kislev | Tebeth | Shebat |
| :---: | :---: | :---: | :---: | :---: | :---: |
| vi | 12 Pablon | 12 Payni | 11 Epiphi | 11 Mesore | 5 Thoth |
| VII | 1 Payni | 1 Epiphi | 30 Epiphi | 30 Mesore | 124 Thoth |
| $\begin{aligned} & \text { Year of } \\ & \text { Artax. } \end{aligned}$ | Adar | Veadar | Nissan | Iyar | Sivan |
| VI | ${ }^{5}$ Plaophi | 4 A hyr | 4. Choiak | 1 Tyyj | 3 Mehhir |
| VII | 24 Phaophi | - | 23 Athyr | 23 Athir | 22 Tybi |
| Year of <br> Artax. | Tammuz | Ab | Elul |  |  |
| VI | 3 Phamenoth 22 Mehhir | $\|$2 Pharmuthi <br> 21 Plamenotl | 2 Pabhon |  |  |

or, if we suppose the second to be cmbolismic the correspondences will turn as follows:

| Year of Artax. | 'Tishri | Heshvan | Kislev | Tebeth | Shebath |
| :---: | :---: | :---: | :---: | :---: | :---: |
| VI | 12 Pahhon | 12 Payni | 11 Lpiphi | 11 Mesore | 5 Thoth |
| VII | 1 Padhon | 1 Payni | 30 Payni | 30 Fp phip | 29 Mesore |
| $\begin{aligned} & \text { Year of } \\ & \text { Artan. } \end{aligned}$ | Adar | Yeadar | Nissan | I yar | Sivan |
| VI | 5 Phaophi | - | 4. Allyr | 4. Choiak | 3 Tybi |
| VII | 24 Thoth | 23 Phaphi | 23 Athyr | 23 Choiak | 22 Tybi |


| Year of <br> Artax. | Tammuz | $\Lambda b$ | Elul |
| :---: | :---: | :---: | :---: |
| VI | 3 Mehhir | 2 Phamenoth | 2 Pharmuthi |
| VII | 22 Melhir | 21 Phamenoth | 2 Pharmuthi |

which sketch shows that by either alternative in the seventh ycar of Artaxerxes' reign as many as 21 days of Mehhir did fall in Sivan and justifics to a very great extent the statement of the inscription.

From the above calculations and sketches one thing comes out in an incontrovertible manner, namely that the data furnished by papyrus $D$ and the sandstone inscription point to the existence of the embolismic year at the time when these monuments werc written or are supposed to have been written.

Papyrus E, which is next in date, seems also to contain some implieation of the same character, because, if we simplify its date $3^{\text {rd }}$ Kislev $=10^{\text {th }}$ Mesore into $1^{\text {st }}$ Kislev $=8^{\text {th }}$ Mesore and compare the latter with the calendars of years VI $I^{\text {th }}$ and VIIth both viewed as common (p.39) we will find in the first case a difference of 27 days, while in the second the difference would be of 38 days. But variances of such length can only be the result of an inflation, and as in the present case the variance manifests itself in the former half of the year, i. e. before Nissan, the inflation must have occurred in the previous ycar. In other words, papyrus E which is dated from the nineteenth of Artaxerxes shows that the eighteenth year of that monarch was cmbolismie.

The couple of embolismic years will be increased by one when we consider papyrus $F$ whose equivalence $13^{\text {th }} A b=19^{\text {th }}$ Pahhon, simplified into $1^{\text {st }} \mathrm{Ab}=7^{\text {th }}$ Pahhon would show by the same method and means of comparison such differences as would more than justify the belief in the intervention of an uncommon year. This time, however, as the swelling comes about the end of the year we infer that this very year, the twenty-fifth of Artaxerxes which is the one of the papyrus, was embolismic.

We have thus ascertained in the monuments bearing the name of Artaxerxes the occurence of the following three embolismic years during his reign:
the $6^{\text {th }}$ (papyrus D) or the $7^{\text {th }}$ (sandstone inscription), the $18^{\text {th }}$ (papyrus E),
the $25^{\text {th }}$ (papyrus F).
Unfortunately, as 6 (or 7 ), 18 and 25 do not stand between themselves in the relationship of 3,6 , and 8 which would represent the embolismic years of the period excogitated for the present test, nor of any of their multiples, we cannot use the data furnished by the monuments as a recognised basis for the construction of one uniform calendar, and the only course left open to us is the drawing up of four scparate calendars, three of which will have for starting-points the detailed indications exhibited in cach of the Artaxerxes papyri now being dealt with, and the fourth the equally detailed date which comes out from the reckoning based on papyrus 1) in its close comection with the sandstone
inscription. It is obvious that the ignorance in which we lie as to the rank that each of these embolismic years occupied in its respective period compels us to consider each of them from a treble point of view: as third, sixth or eighth year in its own group; hence the quadruple set of tables which are presented in the following pages:


#### Abstract

TABLE ${ }^{1}$. THE HEBREW-EGYPTLAN CALEND $\triangle$ P POR A PERIOD OF EIGHT YEARS constructed on the hypothesis that the 6 year of Artaxerxes was the 3 rd in its period. Basis: Papyrus D, 21st Kisler $=1$ : $$
\text { Mesore; hence Ist Kislev }=11 \text { th Itpiphi. }
$$




Distribution of the 25 years of Artaxerxes' reign in cigit som periods ateording to the above hypothesis:

|  |  | 12 | 20 |
| :---: | :---: | :---: | :---: |
|  | + | 13 | 21 |
|  | 5 | 11 | \% |
|  | 6 | 15 | 2.3 |
|  | 7 | 16 | 24 |
|  | 8 | 18 | 3 |
| 1 | 9 | 18 |  |
| 2 | 10 | 19 |  |
| B | 11 |  |  |

B. By this embolismic is not.
,

1) Only in the 3rd year of the period Yeadar has 30 days, in the 6th and 8 th the interabary month being of 29 ist

# TABLE ${ }^{2}$. <br> THE HEBREW.EGYPTIAN CALENDAR FOR A PERIOD OF EIGHT YEARS <br> constructed on the hypothesis that the <br> year of Artaxerxes was the 6th in its period. <br> Basis: Papyrus D, 21st Kislev $=1 \mathrm{e}$ Mesore; hence 1st Kiblev $=11^{\text {th }}$ Itipiph. 

| $\begin{aligned} & \text { Year } \\ & \text { of } \\ & \text { period } \end{aligned}$ | Tishrl | Heshran | Kisler | Tebeth | Shebat | Adar | Veadat |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st | 7 Payai | 7 Epiphi | (1) Mesore | 1 Thoth | 30 Thoth | 30 Phaophi |  |
| 2nd | 26 Pahhon | 26 Payni | 25 Epiphi | 25 Mesore | 19 Thath | 19 Phnophi |  |
| 3 rd | 15 Praliton | 15 Epiphi | 14 Epiphi | 14 Masore | 8 Thoth | 8 Plaophi | 7 Aldry |
| 4th | 4 Payni | 4 Epiphi | 3 Mesore | 3 Epagomenal | 27 Thoth | 27 Pliaphhi |  |
| 5 Lh | 23 Pahhon | ${ }^{23}$ Payni | 22 Epiphi | 22 Mnsore | 16 Thoth | 16 Plmaphi | - |
| 6 th | 12 Pahlion | 12 Payni | It Apiphi | 11 Mesore | 5 Thoth | 5 Phaophi | 4 Ather |
| 7 Hh | 30 Pabhon | 30 Payni | 29 Epiphi | 29 Mcsore | 23 Thoth | 23 Phanplii |  |
| 8th | 19 Pahhoa | 19 Payni | 18 Epiphi | 18 Mesore | 12 Thoth | 12 Pl ¢apyil | 11 Athr |


| Hissan | Iyar | Sivan | Tammuz | $\mathrm{Ab}$ | Elal | Last day of year | $\begin{gathered} \text { Total } \\ \text { of } \\ \text { days } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29 Athyr | 20 Choink | 28 Tybi | 28 Melthir | 27 Phamonoth | 27 Pharmuthi | 95 Pahhon | 354 |
| 18 Athyr | 18 Choüa | 17 Tybi | 17 Mohhir | 16 Phamenoth | 16 Pharnuthi | 14 Pahhon | 354 |
| 7 Chounk | 7 Tybi | Melhir | 6 Phamenoth | Pharmuthi | 5 Pathon | 3 Payui | 384 |
| 26 Athyr | 26 Choink | 25 Tybi | 25 Mohhir | 24 Plinmenoth | 21 Phatmuthi | 22 Pahhon | 354 |
| 15 Athyr | 15 Chönk | 14 Tybi | 14 Molhat | 13 Phameno | Pharmuthi | 11 Pahhon | 51 |
| 3 Choind | 3 Tybi | Molhir | hamenoth | Pharmul | 1 Pahlon | 29 Pahto | 383 |
| 22 Athgr | 28 Cloionk | 21 Tybi | 21 Mohhir | 20 Pbamen | 20 Pharmuthi | 18 Prahion | 354 |
| 10 Choink | 10 Tybi | 9 Melhair | 0 Plumenoth | 8 Pharmuthi. | 8 Pabhou | 16 Payai | 53 |

Total of days 2920 $=8$ Egyptian years of 365 days each.

Distribution of the 25 years of Artaxoryes' roigo
in eight-year periods according to tho above hypothesis:

| 1 | 9 |
| :---: | :---: |
| 2 | 10 |
| 3 | 11 |
| 4 | 12 |
| 5 | 13 |
| 6 | 14 |
| 7 | 15 |
| 4 | 16 |

N.B. By this distribution both 18th and 2th of Artaxerses which ought (p. 42)

| THE HEBREW-EGYPTIAN CALENDAT constructed on the bypothesis that the 6t <br> Basis: Papyrus D, 21st Kiblev $=1$ st |  |  |  |  |  |  |  | $A^{3}$ <br> FOR A PERIOD OH FLGHT YEARS year of Artaxerxes was the 8 th in its period. Mesore; hence 1st Kislev $=11$ hh Jpiphi. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tear of period | Tishri | Невhүaд | Kisley | Tebeth | Shebat | Adar | Veada | Nissan | Iyar | Sivan | Tammaz | Ab | 141 | Last đay of year | Total of days |
| 10t 2nd 3rd 4th 5th 6th 7th 8th | 30 Pahhon <br> 10 Pahhon <br> 8 Pahhon <br> 27 <br> Pahhon <br> 16 Pahhon <br> 5 Pahhon <br> 23 Pahhor <br> 12 Pahhon | 30 Payni <br> 19 Payni <br> 8 Payni <br> 27 Payni <br> 16 Payni <br> 5 Payni <br> 23 Payni <br> 19 Pryai | 29 Epiphi <br> 18 Epiphi <br> 7 Epiphi <br> 26 Epiphi <br> 15 Rpiphi <br> 4 Epiphi <br> 22 Epiphi <br> IS Epiphi | 89 Mesore 18 Mesore 7 Mesore 26 Mesore 15 Mesare 4 Mesore 29 Mesore 11 Mesore | 93 Tboth <br> 18 Thoth <br> 1 Thoth <br> 20 Thoth <br> 97 Thoth <br> 3 Epargomenal <br> 16 Thoth <br> 5 Tthoth | 83 Phaophi 12 Phaphai 1 Phaophi 20 Phophi 0 Phaophi 28 Thoth 16 Phaophi 5 Phaphi | 30 Thaophi <br> — <br> 27 Phapplaj <br> - <br> 4 Athyr | $\begin{gathered} 28 \text { Athyr } \\ 11 \text { Athyr } \\ 30 \text { Athyr } \\ 29 \text { Athyr } \\ 8 \text { Athyr } \\ 26 \text { Alhyr } \\ 5 \text { Athyr } \\ \text { B Choink } \end{gathered}$ | 22 Cloink <br> 11 Choink <br> 30 Chomk <br> 10 Ctopiak <br> 8 Choüak <br> 26 Choiak <br> 15 Choiat K <br> 3 Tybi | 21 'I'ybi <br> 10 Pybi <br> 29 Tybi <br> 18 tybi <br> 7 'Tybi <br> 25 'Ty his <br> 14 Ty <br> 2 Mehhir | 21 Mehhir <br> 10 Mehlis <br> 29 Mchhir <br> 18 Melihir <br> 7 Mchlir <br> 25. Mehhir <br> 14 Mehbir <br> 8 Phanenoth | 20 Plinmesoth <br> 9 Phamenoth 28 Phamenoth <br> 17 Phamenoth <br> 6 I'samenoth <br> 24 I'hamenoth <br> 13 Phamenolh <br> 1 Pharmuthu | 90 Pharmithi <br> 9 I'parmathi 28 Plarmathi 17 Plarmuthi 6 Pharmuthi 24 1'harmuthi 18 lharmathi 1 Pahnon | 18 Pahhon <br> 7 Pahhon <br> 26 Pahbon <br> 15 Palhon <br> 4 l'ahhon <br> 22 l'ahhon <br> 11 Pahhon <br> 99 Irhhon | 354 354 354 354 354 383 354 383 |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { Tot } \\ = & 8 \end{aligned}$ | of days in plian years | 8 years 365 degs | $2920$ cach. |

Distribution of the 25 years of Artaxerxes' reign in ight-year perionds nceording to the above hypothesis:
N.B. By this distribution the 18 th ycar of Artarerxes which ongth (p. 42) to be embolismio is not.


THE HEBREW-EGYPTIAN CALENDA FOR constructed on the bypothesis that the 7


| Year of period | Tishri | Hesbran | Kisiey | Tebeth | Shebat | Adar | Veadar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st | $2{ }^{\text {b Pablhon }}$ | 26 Payni | 25 Eppphi | 25 Mesare | 19 Thuth | 12 Plnophai |  |
| 2nd | 15 Pabhon | 15 Payni | 14 Epphi | 14 Mesore | 8 Thoth | 8 Phaophi | - |
| 3 rd | 4 Pallion | 4 Payni | 3 Fipuphi | 3 Mesore | 2 Epagomenal | 27 Thoth | 26 Phampl |
| 4th | 23 Pahhon | 23 Payni | 22 Epiphi | 22 Mesore | 16 Thoth | 10 Phumphi | - |
| 5th | 12 Pahhor | 12 Payni | 11 Epiphi | 11 Mesore | 5 Thoth | 5 lhanphi |  |
| 6ith | 1 Pahbon | $1 \text { Payni }$ | 30 Payni | 30 Epiphi | 29 Mesore | 24 Thoth | 23 Pkamt |
| 7 th | 19 Pahbor | 19 Payni | 18 Epiphi | 18 Mesore | 12 Thoth | 12 Plnophi |  |
| 8th | 8 Pablion | 8 Payni | 7 Epiphi | 7 Mesore | 1 Thouth | 1 Pliauphi | 30 Phaopl |

Distribution of the 25 years of Araxerxes' reigu 2
eight-year jwerieds according to the above hypolthesis:

| 10 | 18 |
| :--- | :--- |
| 11 | 10 |
| 12 | $\mathbf{2 9}$ |
| 13 | 21 |
| 14 | 22 |
| 15 | 23 |
| 16 | 24 |
| 12 | 2.5 |

N.B. By this distribution the gear 18th of Artaxerxes which ought (p. is:

[^8]of) Auty fro klays of Melthis in Sivan just in the year preerding that of tha

FOR A PERIOD OF ETGHT YEARS
year of Artaxerxes' reign was the 6 th in its period. combined with the data of papyrus $D^{1}$ ).

| Missan | Iyar | Sivan | Tammuz | Ab Elal | Last day of year | $\begin{gathered} \text { Total } \\ \text { of } \\ \text { days } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 Athyr 7 Athys 26 Athyr 15 Athys 4 Athyr 22 Athyr 11 Athyr 29 Athyr | $\begin{array}{r} 18 \text { Choïk } \\ 7 \text { Choïak } \\ 26 \text { Choink } \\ 15 \text { Choiak } \\ 4 \text { Choink } \\ 29 \text { Choink } \\ 11 \text { Choink } \\ 29 \text { Choink } \end{array}$ | 17 Tybi 6 Tybi 25 Tybi 14 Tybi 3 Tybi 2$)$ 91 Tybi 10 Tybi 25 Tylii | 17 Mehhir <br> ${ }^{6}$ M Mehhir <br> ${ }_{25}$ Melhir <br> 14. Melhir <br> 3 Mehhir <br> 21 Mehhir <br> 10 Mchhir <br> 28 Mehlir | 16 Phamenoth 16 Plarnuuthi <br> 5 Phamenotb 5 Plarnuthi 24 Phananoth 84 Pharmuthi 13 Phamenoth 13 Pharmuthi 2 Phamenoth 2 Plarmuthi 20 Phamenoth 20 Pharmuthi 9 Phamenoth 9 Pharnuthi 27 Phamenoth 27 l'lintrmuthi | 14 Pahhon 3 Pathon 22 Pablion 11 Prahtion 30 Pharmuthi 18 labhon 7 Pahhon 25 Pahhon | $\begin{aligned} & 354 \\ & 354 \\ & 384 \\ & 354 \\ & 354 \\ & 383 \\ & 354 \\ & 383 \end{aligned}$ |

Total of days in the 8 years 2020 $=8$ Egyptinn years of 365 days ench.
to be embolismic is mot.



#### Abstract

\section*{TABLE B ${ }^{3}$.}

THE HEBREW-EGYPTIAN CALENDAR FOR A PERIOD OF EIGHT YEARS constracted on the hypothesis that the 7th year of Artaxerses' reign was the 8 th in its period. 


| $\begin{aligned} & \text { Year } \\ & \text { of } \\ & \text { period } \end{aligned}$ | Tishri | Heshran | Kisley | Tebeth | Shebat | Adar | Yeadar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st | 19 Palihon | 19 Payni | 18 Eppiphi | 18 Mesors | 18 Thath | 12 Phasplit |  |
| 2nd | 8 Palibon | 8 Payni | 7 Epiphi | 7 Mesorc | 1 Thoth | 1 Phnophi | - |
| 3rd | 27 Pharnuthi | 27 Pahbon | 26 Payni | 26 Tppphi | 25 Mesore | 20 Thoth | 19 Phaoph |
| 4.th | 16 Pablion | 16 Payai | 15 Epiphi | 15 Mesore | 0 Thoth | 9 Phaophi | - |
| $5 \mathrm{th}^{\text {a }}$ | 5 Pahhon | 5 Payni | 4 Epiphi | 4 Mesore | 3 Epagomenal | 28 Thoth |  |
| 6.4 | 24 Pbarmuthi | 24 Pahhon | 23 Payní | 23 Epiphi |  | 17 Thoth | 16 Minoplii |
| 7 lh | 12 Pahton | 12 Рвулi | 11 Epipai | 11 Mesore | 5 Thotls | ${ }^{5}$ EPpiphi |  |
| 8 tb | 1 Pahbon | 1 Payni | 30 Payni | 30 Epiphi | 29 Mesere | 2.4. Thoth | 23 Phaoplii |

Distribution of the 25 years of Artaxerxes' reign

| M1ssan | Igar | Sivan | Tammuz | Ab | Elul | Last day of year | $\begin{aligned} & \text { Total } \\ & \text { of } \\ & \text { days } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11 Athyr | 11 Choink | 10 Tybi | 10 Mehbir | 9 Plamenoth | 0 Plarmothi | 7 Pabhon | 354 |
| 30 Phaophi | 30 Athyr | 29 Choünk | 29 Tybil) | 28 Mehhi | 28 Thameaoth | 26 Pharmuthi | 35 |
| 19 Athyr | 19 Chöak | 18 Tybi | 18 Mehhir | 17 Phamenoth | 17 Pharmuthi | 15 Pallion | 384 |
| $8 \text { Athyr }$ | Choïak | $7 \text { Tybi }$ | Melhir | 6 Plamenoth | 6 Plarmuthi | 4 Palhon | 354 |
| 27 Pbaophi | 27 Alhyr | 26 Choak | 26 Tybi ${ }^{1}$ | 25 Mchbir | 25 Phumenoth | 23 Plarmuithi | 354 |
| 15 Athyr | 15 Choük | 14 Tybi | 14 Mehhir | 13 P Pmmenoth | 13 l'barmuthi | 11 Pulhou | 383 |
| 4 Athyr | ànk | 3 Tybi ) | 3 Mehhir | 2 Pbamenoth | 2 Pharmathi | 30 Pharmuthi | 354 |
| 22 Athyr | 22 Choil | 21 Tybi | 21 Me |  |  |  | 383 |

Total of days in tho 8 years 2920 $=8$ Egyptian years of 365 days ench.
eight-year periods according to the above hypothesis:

|  | 8 | 16 | 24 |
| ---: | ---: | ---: | ---: |
| 1 | 4 | 17 | 25 |
| $\mathbf{2}$ | 10 | 18 |  |
| 3 | 11 | 19 |  |
| 4 | 12 | 20 |  |
| 5 | 18 | 21 |  |
| 6 | 14 | 22 |  |
| $\mathbf{z}$ | 16 | 玉2 |  |

N.B. By this distribution the ycar 25th of Artaxerxes which ought ( p . 42 ) to be embolismic is not.
 g) Ouly fro days of Methitr is Stran fart the year preecding that of the inmeriptiun.

R the inseripllon.

## TABLE $0^{1}$.

THE HEBREW-EGYPTIAN CALENDAR FOR A PERIOD OF GIGHT YEARS
constructed on the hypothesis that the 18imy year of Artaxerxes was the 3rd in its period.
Basis: Papyrus E, 3rd Kislev $=10$ th Mesore (in the 19 year of Artaxerxes); hence 1 st $\mathrm{Kislev}=8{ }^{\text {th }}$ Mesore .

| Year of period | Tisbri | Heshran | Kislev | Tebeth | Shebat | Adar | Veadar | Kissan | Jyar | Sivan | Tammgz | Ab | Elal | Last day of year | $\begin{gathered} \text { Total } \\ \text { of } \\ \text { days } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st | 12 Thay | 12 Epiphi | 11 Mesore | 6 'thoth | 5 Ihamhi | 5 Sthyr | - - | 4 Chtink | $4{ }^{4} \mathrm{~T}$ ybi | 3 Mchilis | 3 I'hamenoth | 2 Jharmutlii | 2 l'ahhon | 30 Prahen | 354 |
| 2nd | 1 Payni | 1 Epiphi | 30 Epiphi | 30 Mesore | 94 Thoth | 84 Phnoplis | - | 3 Athyr | 93 Chomk | 22 Tybi | 22 Mehlir | 21 l'hamsenoth | 21 l'harmuthi | 19 Pahtion | 354 |
| 3 cd | 80 Pahbon | 20 Pagni | 10 Epiphi | 10 Mesore | 13 Thoth | 13 Phaphi |  | 2 Clonk | 12 Jybi | 11 Melihir | 11 Phamenoth | 10 Pharmathi | 10 Pabhon | 81 Payni | 384 |
| 414 | 9 Inyni | 9 Epiphi | S Mesore | 3 Throth | $21^{\text {² }}$ (xaopli | 2 Athyr | - | 1 Choink | 1 Tybi | 30 Tybi | 30 M | 29 P'ummenoth | 29 Pharmuthi | 27 Pahhon | 354 |
| 5 th | 25 Pnhtron | 28 Payni | 27 Epiphi | 97 Mesore | 21 Thouth | 21 Placpisi | - | 40 Athyr | 20 Cborak | 19 '1ybi | 10 Melair | 15 P'hamenoth | 18 Mlatmuthi | 16 Pahthon | 354 |
| 6th | 17 Pahhon <br> 5 Payni <br> 24 Pabhou | 17 Payni <br> 5 Lpiphi <br> 24 Payni | 16 Epiphi <br> 4 Mesore <br> 28 Fiputi | 16. Mesore <br> 4 Hamgomenal <br> 23 Mesore | 10 Thath <br> 28 Thatls <br> 17 Thoth | 10 Phapphi <br> 25 I'lãuphis <br> 17 1"hnophi |  | 8 Choink 7 Athyr 5 Choink | $\begin{aligned} & 8 \text { Tylu } \\ & 27 \text { Chouak } \\ & 15 \text { Tybi } \end{aligned}$ | $\left[\begin{array}{l} 7 \text { Mehhir } \\ 26 \text { Tybi } \\ 14 \text { Mehhir } \end{array}\right.$ | 7 Phamenoth <br> 26 Mehhit <br> 14 Phamenoth | 6 Pharmuthi 25 Plumenoth 13 Phuneaoth | 6 Pahhon <br> 25 Pharmuthi <br> 13 Cralhen | 4 Payni <br> 23 Pahhon | 383 <br> 354 <br> 383 |
| 7411 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8th |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} \text { Total } \\ =8 \mathrm{Esy} \end{aligned}$ | of days in the yptian years of | e 8 years f 365 dnys | $2920$ <br> each. |
| Ihatribution of the 25 years of Ardaxerxes' rutg in dighteyear periods according to the above hypothesis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 8 | 16 | 21. |  |  |  |  |  |  |
|  |  |  |  |  |  | 1 | 9 | 17 | 25 |  |  |  |  |  |  |
|  |  |  |  |  |  | \% | 111 | 14.4 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 3 | 11 | 59 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 1 | 14 | 20 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | \% | 14 | al |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 6 | 14 | 29 |  |  |  |  |  |  |  |
|  |  |  |  |  |  | $z$ | 15 | 23 |  |  |  |  |  |  |  |

[^9]THE HEBREW-EGYPTIAN CALENDAR FOR A PERIOD OF EIGHT YEARS
constracted on the hypothesis that the 18 th
year of Artaxerxes was the 6 th in its period.
Basis: l'apyrus $\mathrm{E}, 3 \mathrm{3rd} \mathrm{Kislev}=10$ th Mesore (in the 19 th year of Artaxerxos); hence 1 st Kislev $=8$ th Mesore.

| Year of period | Tishrt | Heshvan | Kisloy | Tebeth | Shehat | Adar | Veadar | Nissab | Iyar | Sivan | Tammuz | Ab | Elal | Last day of year | Total of days |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $15 t$ | 16 Payni | 16 Epiphi | 15 Mesore | 10 THoth | 9 Phaophti | 9 AlHyE | - | 8 Chohak | 87 ybi | 7 Mchior | 7 l'bumenoth | 6 I'harmuthi | 6 Pahlon | 4 Payni | 354 |
| 2nd | 5 Payni | 5 Epiphi | 4 Mesore | 4 1pragomenal | 28 'Thoth | 25 Phaoplui |  | 27 Athyr | 27 Chonak | 26 Tyli | 26 Mehtir | 25 Phamenolb | 25 Pharmuthi | 23 Pahhon | 354 |
| 3 rd | 24 Pahhon | 24 Tay口i | 23 Epiphi | 23 Mesore | 17 Mroth | 17 Phaghii | 16 Alhyr | 6 Choink | IG Tybi | 15 Mohhir | 15 Plamenoth | 14 Pharmuthi | 14 Palhon | 12 layni | 384 |
| 41 h | 13 Payni | 13 Epiphi | 12 Mesore | 7 Thoth | 6 Phaopli | 6 A thyr | - | 5 Chouak | 5 Jybi | 4 Mehhir | 4 Phamenoth | 3 Pharmuthi | 3 Pahhon | 1 1'nyni | 354 |
| 5th | 2 Payni | 2 Epiphi | 1 Mesore | 1 Epagomenal | 25 Thoth | 25 Phaophi |  | 4Atbyr | 24. Choiak | 23 Tybi | 23 Mchbir | 22 Pramenoth | 22 Pharmuthi | 20 Pahhon | 354 |
| 6ith | 21. Pahhon | 21 Payai | 20 Epiphi | 20 Mesore | 14 Thoth | 14 P'lagophi | 13 Athyt | 2 Choŭnk | 12 Tybi | 11 Mehhir | 1] Phamenoth | 10 Plimemuthí | 10 Pabhon | 8 layni | 383 |
| 7th | 9 Payni | 9 Epiphi | 8 Mesore | 3 Thoth | 2 Pbaophi | 2 Athyr | - | 1 Oboinak | 1 'Tyly | 30 Tybi | 30 Nehhit | 29 Phumenoth | 99 Pharmuthi | 27 Pahlion | 354 |
| 8th | 28 Pahbon | 28 Payni | 97 Epiphi | 27 Mesore | 21 Thoth | 21 Phaophi | 20 Atby | 19 Cboink | '99 Ty bi | 18 Melhir | 18 Phamenoth | 17 Pharmuthi | 17 Pahhon | 15 Payni | 383 |
|  |  |  |  |  |  |  |  |  |  |  |  | Total $=8 \mathrm{Egy}$ | of days in the ptian year8 | e 8 चears f 365 days | $\begin{aligned} & 2920 \\ & \text { each. } \end{aligned}$ |

Diatribntion of the 25 years of Artaxerses' reign is eight-year periods according to the above hypotbesis:



## TABLE $C^{3}$ <br> THE HEBREW-EGYPTIAN CALENDA

constructed on the hypothesis that the 18 ch
Basis: Papyrus E, 3rd Kislev $=10^{\text {th }}$ Mesore (in the $19{ }^{\text {th }}$

| Year of period | Tishri | Heshyan | Kislev | Tebeth | Shebat | Adar | Veadar | Nissan | lyar | Sivan | Tammuz | Ab | Elal | Iast day of year | $\begin{aligned} & \text { Total } \\ & \text { of } \\ & \text { days } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1st | 9 Payni | 9 Epiphi | 8 Mevore | 3 Thoth | 2 Phapphi | 2 Athyr | - | 1 Choîak | 1 'Tybi | 30 'Tybi | 30 Mehhir | 29 Pbumenoth | 29 Pharmuthi | 27 Pubhon | 354 |
| 2nd | 25 Pablion | 98 Payni | 27 Fpiphi | 27 Mesore | 21 Thoth | 21 l'happhi | - | 20 Athyr | 20 Choïak | 19 Tyhi | 19 Mehhir | 15 Phamenoth | 18 Pharmuthi | 16 Pahluon | 354 |
| 3 rd | 17 Pahbon | 17 I'ayni | 16 Epiphi | 16 Mcsare | 10 Thoth | 10 lhanophi | 0 Alty | 9 Chorak | 9 Tyli | 8 Mehhir | 8 Plumenoth | 7 Plarmuthi | 7 Pahton | 5 Payni | 384 |
| 4th | $6_{6}$ Payni | 0 Epiphi | 5 Mesore | 5 Epagomenal | 29 Tboth | 99 Phaphi | - | 28 Athyr | 28 Choiak | 27 Tybi | 27 Meh3ir | 26 J'lamenoth | 26 Pharmuthi | 24 Pahbon | 354 |
| 4 | 25 Palibon | 25 Payui | 24 Epipbi | 24 Mesore | 18 Thoth | IS Phuphit | - | 17 Athyr | 17 Choink | $16^{\text {'Ty }}$ 'y | 16 Mehhir | 15 l'hamenth | 13. Pbarmuthi | 13 Pahtion | 354 |
| 641 | 14 Palhon | 14 Payni | 13 Epiphi | 13 Mesoro | 7 Tboth | 7 Planghi | 6 Aly | 5 Choink | 5 Ty | 4 Mebhir | 4 Phamenoth | 3 Pharmathi | 3 Palshon | 1 Payni | 383 |
| 71 |  | 2 Epiphi | 1 Mesore | 1 Epratomeral | 2.5 Thath | 25 Plamplit |  | 24 Athyr | 24 Choins | 23 Tylui | 23 Meluhir | 22 Phamenoth | 22 Plasrmuthi | 90 Prabon | 354 |
|  | 81 |  |  | 20 Mesore | 14.'Moth | 14.1 'hatpuit | (3) thy | 12 Choink | 19 Tybi | 11 Mehhi | 1 Phamenoth | 10 Planrmut | 10 Pabhon | 8 Payni | 383 |

Total of days in the 8 years 2020 $=8$ Egyptian years of 365 days cheh.

Distribution of the 25 years of Artaxerxes' reign if eight-year periods aecording to the nbove bypothesis:

|  | 3 | 11 | 19 |
| ---: | ---: | ---: | ---: |
|  | 4 | 12 | 20 |
|  | 5 | 13 | $\mathbf{2 1}$ |
|  | 6 | 14 | 29 |
|  | 7 | 15 | 23 |
|  | 4 | 16 | 24 |
| 1 | 9 | 17 | 95 |
|  | 10 | 14 |  |


 os is the case with the abo diatribution, considered common, the identifieation angen inseription would be lost. There is nothing to account for the contradietion between the resalt of the plain calculation of $p$, 30 and the oqaivalence $1-30$ Sivar $=16$ Tyln 15 Mehbir indiented in the presemb table.

| TABLE | $D^{1}$. |
| :--- | :--- |
| THE HRBREW-EGYPTIAN CALENDAR | IOR A PERIOD OF EIGHT YEARS |
| constructed on the hypothesis that the 2 25lh | year of Artazerxes was the 3 rd in its period. |

Basis: Papyrus $\mathrm{F}, 1^{\text {th }} \mathrm{Ab}=19^{4}$ Pahhon; hence 1st $\mathrm{Ab}=7^{\prime t k}$ Palhon.

| Year of period | Tishri | Heshran | Kislev | Tebeth | Shebat | Adar | Yeadar | Nissan | Iyar | Sivan | Tammuz | Ab | Elal | Last day of year | Total of days |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 9 Mesore | 3 Thoth | 3 Proophit | 2 Athyr | 2 Clroink | - | 1 Tybi | 1 Mehhir ${ }^{1}$ ) | 30 Mehhir | 30 Phamenoth | 29 Pharanutis | 20 T'ahhon | 27 l’nyni | 354 |
| 2n |  | 28 Epiphi | 27 Mesore | 82 Thath | 21 thanphi | 21 Athyr |  | 20 Choiak | $20 \mathrm{Ty} 3 \mathrm{i}$ | 10 Mchhir | 19 Phamenoth | 18 Pharmuthi | 18 Pahlon | 16 Payni | 354 |
| 2 | 17 Рауai |  | 16 Mesoro | 11 Thoth | 10 Plamphi | 10 Allyr | 9 Chounk | 9 Tybi | 9 Mehhir ${ }^{\text {a }}$ ) | 8 Phamenoth | 8 Pharmuthi | 7 Pahhen | 7 Payni | 5 Fpiphi | 38.4 |
| 3 rd | 17 | 6 Meso | 5 Eparrom | 30 Tlioth | 29 l'bsophi | 20 Athyr | - | 38 Choink | 28 Tybi | 27 Mehhar | 97 Phamenoth | 26 limarmuthi | 26 T'ahhon | 24 Inyni | 354 |
| 5 th | 95 Pag | 6 Meso | 24 | 19 Tboth | 18 Platophi | 18 Athyr |  | 7 Cboink | 17 'lybi | 16 Melhir | 16 Phamenoth | 15 Pharmuthi | 15 Pahhon | 13 I’иyni | 354 |
| 5 th | 25 Payni | 25 Epiphi | 24 Mesore |  |  | A diyr | 6. Choint | $5 \text { Tybi }$ | $5 \text { Melhir }{ }^{2}$ | 4 Phamenoth | 4 Pharmulla | 3 Pahhon | 3 Payni | 1 ITpiphi | 383 |
| fth | 14 Payni | 14 Epiphi | 13 Mesore | 8 Thoth |  | 7 Athyr | 6. Chowe | 24 Cholink | $24 \text { Tybi }$ | 23 Mehhir | 28 Plixmenoth | 22 Plarmuthis | 22 Thahon | 20 Tayni | 384 |
| 7th | 2 Epiphi | 2 Mesore | 1 Epagomens | 2 f Theth | 25 Phuephi | 25 Athyr |  |  |  | 23 Aehtir | 23 Mramenoth | 22 Platmuthis |  | 20 Maym | 354 383 |
| 8th | 21 Payni | 21 Epiphi | 20 Mcsors | 15 Thoth | 14.1'taophi | 14 Alhys | 13 Chotuc | $21 y b$ | 2 Nuthit | Mamenoth | Marmat |  | 10 Payni | 8 Epiphis | 383 |

$$
\begin{aligned}
& \text { Total of days in the } 8 \text { years } 2920 \\
& =8 \text { Fgyptian years of } 365 \text { days each. }
\end{aligned}
$$

Distribution of the 25 yenrs of Artaxerxes reign i cighteyear periods nceording to the nbove hypotheais:


## TABLE

THE HEBREW-EGYPTIAN CALENDAR constructed on the bypothesis that the 25th

Basis: papyrus $\mathrm{F}^{\mathrm{l}}$ ), ${ }^{13 \text { th }} \mathrm{Ab}=19 \mathrm{th}^{\mathrm{h}}$

| Year of pertod | Tishri | Heshvan | Eislev | Tebeth | \$hebat | Adar | Veadar |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $15 t$ | 6 Epiphi | 6 Mesore | 5 Epagomenal | 30 Thoth | 29 Phaophi | 29 Athyr | - |
| 2nd | 25 Payni | 26 Epiphi | 84 Mewore | 19 Thoth | 18 Phaophi | 18 Athyr | - |
| 3 rd | 14 Payai | 14 Epiphi | 13 Mesore | 8 Tholh | 7 Phaophi | 7 Athyr | 6 Chotak |
| 4th | 3 Epiphi | 3 Mesoro | 2 Epagomenal | 27 Thoth | 26 Phaopli | 20 Alhyr | - |
| 5th | 22 Payni | 29 Epiphi | 21 Mebore | 16 Thoth | 15 Planophi | 15 Athyr | - |
| 6th | 11 Payni | 11 Epiphi | 10 Mesore | 5 Thoth | 4 Pbaophi | 4 Ahyr | 3 Choink |
| 7 th | 20 Payni | 29 Epiphi | 28 Mfesore | 23 Thoth | 28 Phapphi | 22 Athyr | - |
| 8th | 18 Payai | 18 Epiphi | 17 Mesore | 12 Thath | 11 J'haophi | 1) Athyr | 10 Choiak |

Distribution of the 25 yeare of Arlaxerxes' reign in

| 2 |
| ---: |
| 3 |
| 4 |
| 5 |
| 6 |
| 7 |
| 8 |

N.B. By this distribution the 18th year of Artaxerxes which ought (p. 42)

[^10]$\mathrm{D}^{3}$.
FOR A PERIOD OF EIGHT YEARS year of Artaxerxes was the 8 th in its period.
Pabhon; hence 1st $\mathrm{Ab}=7$ th Pahhon.

| Nissan | Iyar | Sivan | Tammaz | 4b | Elul | Last day of year | Total of days |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28 Chô̆ak | 2 S Tybi | 27 Melbir | 27 1rbmenoth | 26 Plarmuthi | 26 Prbhon | 21 Payni | 354 |
| 17 Choiak | 17 Tybi | 16 Melhir | 10 Phamenoth | 15 Pharmuthi | 15 Pahhon | 13 Payni | 354 |
| BTybi | $6 \mathrm{Melihir}^{2}$ ) | 5 Phamenoth | 5 Pharmuthi | 4 Pahbon | 4 Payni | 2 Epiphi | 384 |
| 25 Choink | 25 Tybi | 24 Mehlir | 24 Phamenoth | 23 Pharmuthi | 23 Pahhon | 91 Payai | 354 |
| 14 Choink | 14 Tyb | 13 Mehhir | 13 1'hamenoth | 12 I'harmuthi | 12 Pahhon | 10 गпууi | 354 |
| 2 T'ybit | 9 Mehhir ${ }^{2}$ ) | 1 Ihamenoth | Pharmuthi | 30 Pharmuthi | 30 Pahhon | 28 Payni | 383 |
| 21 Cbonak | 21 Ty bi | 20 Mebhir | 20 Phamenolh | 19 Pharmuthi | 19 Pahhon | 17 Payai | 354 |
| 9 Tybi | y Melbir's) | 8 Phamenoth | 8 Pbarmuthi | 7 Pahthen | 7 Payni | 5 Epiphi | 383 |
| Total of days in the 8 years 2920 $=8$ Egyptian years of 365 days each. |  |  |  |  |  |  |  |

eight-ycar periods according to the above bypothesis:

| 10 | 18 |
| :---: | :---: |
| 11 | 19 |
| 12 | $\mathbf{2 0}$ |
| 13 | 21 |
| 14 | 22 |
| 15 | 28 |
| 16 | 24 |
| 17 | 25 |

to be embelismie is nots and the 7 th is embolismic instead of the Cth.
guile inviguificant difterener in correaprondences.







A glance at this table will suffice to persuade the most hopeful of readers that no benefit can be derived from the eight-year system for the support of the authenticity of the documents. There occurs in this table not a single instance of agreement in the date correspondences between those alleged in individual documents and the various calendars which owe to them the debt of their own existence. The correctness of the first line in each group is of no consequence and only conventional, as in each case this line was purposely taken from a document and we have by way of concession admitted it as accurate for the sake of building upon it the calendars that follow; nor do the two similarly correct lines in the groups $\mathrm{B}^{2}, \mathrm{~B}^{3}$, and $\mathrm{B}^{3}$ carry greater weight, since at the outset of the present test we have combined papyrus D and the sandstone inscription in order to obtain with the joint help of them both the data on which the construction of these particular calendars would be rendered feasible, and for this very reason the tiwo monuments together offer no more than one identification of dates.

Only one inference can be drawn from this extraordinarily enormous display of discrepancies, but we do not want yet the champions of the authenticity to give up their position, as we are prepared to grant the documents a refugizm peccatorum in the hypothesis that at the time they clain to belong to Jewish chronology was still in an erratic condition, that nothing had been done with a view to the introduction of a
settled calendar, and that only at irregular intervals, when the disagreement between the twelve-lunation counting and the atmospheric phenomena exceeded all tolerable limits, provision was made to effect some reconciliation, leaving it to the future to take anew transient measures of a similarly narrow compass. In doing so, however, we will not neglect our duty of considering whether there is in the documents anything able to convince us that such a course has really been adopted, and that with the result of truly restoring the disturbed order.
Mahler's tables ${ }^{1}$ ) will help us once again in carrying out this last part of our demonstration. We find on p. 20 that in the year $471 \mathrm{~B} . \mathrm{C}$., which is that of papyrus A, the $1^{\text {st }}$ Pahhon fell on the $16^{\text {th }}$ August, from which we gather that the $28^{\text {th }}$ Pahbon exhibited in the same papyrus corresponded to the $12^{\text {th }}$ September. But, $28^{\text {th }}$ Pahhon being alleged in the papyrus to be the equivalent of $18^{\text {th }}$ Elul, it follows that $18^{\text {th }}$ Elul $=12^{\text {th }}$ September, or, if we go a little further, we will find that the $1^{\text {st }}$ Tishri in that year fell on the $24^{\text {th }}$ September. By applying the same process to all papyri whose dates are legible we will come to the establishment of the following correspondences for the $1^{\text {st }}$ Tishri.

$$
\begin{array}{cc}
\text { Year B. C. } 471 & 24^{\text {th }} \text { September }{ }^{2} \text { ), } \\
465 & 8^{\text {th }} \text { October, } \\
459 & 24^{\text {th }} \text { August, }
\end{array}
$$

[^11]| 446 | $16^{\text {th }}$ September, |
| :--- | :--- |
| 440 | $12^{\text {th }}$ October, |
| 416 | $15^{\text {th }}$ October, |
| 410 | $22^{\text {nd }}$ September |

Of these dates, $24^{\text {th }}$ August is too early for the beginning of a Jewish year which in Palestine as well as in Egypt or Mesopotamia had to coincide with the close of the gathering of fruits, and is never to be found in the established calendar.
$16^{\text {th }}$, $22^{\text {nd }}$, and $24^{\text {th }}$ September are frequent correspondences for $1^{\text {st }}$ Tishri after embolismic years, and it is perhaps unnecessary to inquire whether circumstances were favorable to the years connected with them being such.

But no reckoning could prove the $15^{\text {th }}$ and $12^{\text {th }}$ October to be good equivalences for the $1^{\text {st }}$ Tishri, and even for the acceptance of the $8^{\text {th }}$ October as such one should, according to the principles of the calendar now in operation, go as far back as three centuries or so before the creation of the world ${ }^{2}$ ). But, leaving all other considerations apart, we will take the last mentioned equivalence as the best fitted example for a benevolent application of the erratic calendar test. We will thus say that, in the same way as every late coincidence is the result of a delay as agninst the Julian months which originates from the intercalary Jewish

[^12]month of the previous year, so the Hebrew year which preceded 465 B.C. was embolismic, and accounts for the equivalence $1^{\text {st }}$ Tishri $=8^{\text {th }}$ October. We will go one step firther and observe that, our calculation showing that in 466 B.C. $1^{\text {st }}$ Tishri would accordingly coincide with $19^{\text {th }}$ September which is also a late coincidence, another positive inference to be drawn is that even the year before it, 467 B.C., was embolismic in the Jewish calendar. To the objection one could make that the occurrence of two embolismic years in close succession after each other seems rather a strange fact we would oppose the reply that the event could be accounted for by the hypothesis that up to 467 B.C. no provision whatever had been made in order to snooth away the irregularities of the twelve-lunation calendar, and that only in that year a decision was taken for the purpose, but, as the distance between calendar and seasons had been allowed to become too great, it was thought wise that their junction should be brought about by means of two jumps in two consecutive years instead of a double jump in one and the same year.

But why, one would say, after that salutary measure was taken, should not the authorities prevent a relapse, but allow instead at so short an interval the difference to grow so large as to necessitate about 439 B.C. the making again of two consecutive embolismic years as is implied by the correspondence $1^{\text {st }}$ Tishri $=12^{\text {th }}$ October? And how, one would say again, after the hard les. son they had been taught twice, the authorities were so poor in foresight as to let the same inconvenience afflict their community for the third time, and with even
greater trouble, about 416 B.C., when the $1^{\text {st }}$ Tishri was allowed to come no earlier than on the $1^{\text {th }}$ October?

When the Cairo papyri were published one of the numerous hopes to which they gave birth was that we might obtain through them the light about the state of the Jewish calendar in olden times. Prof. E. B. Knobel, trying to make the general wish become a reality, took up the matter and on March $13^{\text {th }}$ of this year read to the London Royal Astromical Socicty a paper on the subject ${ }^{1}$ ). We are sorry to find ourselves in the necessity of pointing out some fundamental errors into which he unfortunately fell.

First of all by accepting the year 464 B.C. as the first of Artaxerxes' reign in lieu of the 465 which is generally recognized as such he was bound to give 459 B.C. as the sixth of the same monarch's rule, but instead of that he identifies the latter with 460 ; and when he comes to the nineteenth and the twenty-fifth years of Artaxerxes he again disagrees with himself in making those years correspond to 446 and 440 B.C.

He observes subsequently that papyri E and J , being both provided with the Hebrew date of Kislev $3^{\text {rd }}$, show that they cover exactly the period of the 30 Jewish years rumning between the $17^{\text {th }}$ Novernber 446 B.C. and the $16^{\text {th }}$ December 416 B.C. which are the equivalents of the dates expressed in the documents by the days of the Egyptian months in the nineteenth

[^13]year of Artaxerxes' and the eighth of Darius II.'s reigns respectively. But he finds that this coincidence cannot be obtained without the admission that the first and the last years of this period were both embolismic. Then in order to adapt everything to this necessity he makes of 446 B.C. the seventeenth year of the cycle it belongs to, whereas in reality and as shown by our table B the year $446 \mathrm{~B} . \mathrm{C}$. corresponding to $3315 \mathrm{~A} . \mathrm{M}$. occupies the position of ninth in the cyele. Knobel considers this distortion imperative, because any different collocation of the year in question would destroy the coincidence revealed by the papyri. He is perfectly right in making this remark, and where we do not fall in with him it is about the inference to be drawn from his excellent obscrvation.
Then, passing to the calculation of years and months he finds that from the $1 i^{\text {th }}$ November 446 B.C. to the $16^{\text {th }}$ December 416 B.C. there clapsed 10987 days, while 30 Jewish years starting from $\mathrm{n}^{0} .17$ in one cycle and ending in $\mathrm{N}^{\circ} .8$ inclusive of the cycle beyond next yield a total of 10986 days. According to Knobel the difference of 1 day would be accounted for by the cir. cumstance that by the Julian system the day has its commencement in the morning, and by the Hebrew in the evening before. Against this matter-offact argument there is nothing to say, but one cannot help observing that the 30 years of papyri E and J consisting, after Knobel's collocation, of
\[

$$
\begin{array}{rlccc}
12 & \text { of } 384 & \text { diys } & \text { each } & \\
4 & , & 355 & " & " \\
14 & , & 354 & \text { and } & "
\end{array}
$$
\]



First part of papymi D in the Sayce-C'uwley edition.
(ADIO) MUSLENA.
drawn up a doeument on that day; but argument is absolutely unneccssary since the erease from which Knobel derived his inspiration covers only a little dirt spreading in various degrees of intensity from the first line to the last in this part of the papyrus, and nothing justifies the belief that between the word and the solitary stroke standing to express one unit there is a trace whatever of writing. (Sce plate $1^{1}$ ).

At this point of our demonstration we must be allowed a word on Mahler's opinion about the existence in Babylonia of a pre-Mctonic cycle of 19 lunar years. When he propounded this theory ${ }^{2}$ ) Father Strassmaier opposed it by affirming that there seems instead to have been a cycle of 18 years. In retorting Mahler furnished the proof that his opponent's position was untenable, but we cannot feel convinced that his own is eorrect. All he found in the cunciform tablets is the mention of a second Ilulu and of a second Adaru which obviously were inserted in order to bring about the desired harmony of the civil with the astronomical year. We say,

1) The first line of this plate which reproduces a portion of lap. I) reads thus:
 'lo sum up, K nobel's endeavours have caused the displacement from their right positions in the cyeles of the years of the period be dealt with, by which process he gained one month; then the unwarranted surmise that the crease in papyrus D covered an out of place figure whercthrough he seenred another month; and finally the lengthening of a cyele beyond its ordinary duration for the honest purpose of obtaining the requisite balance of two days. Prof. Kuobel was one of the most nairve victims of the welcome extended to the legyptian imposture.
2) Situmysb. d. K. Itad. d. Wissensch., mathem,-nat. Classe CI, Mhth. II. a. pp. 1685-93.
however, that this was not done after an established system, but was only an occasional measure which owing to its frequency has in our eyes the appearance of something defiued by rules. We cannot possibly believe, as Mahler is inclined to, that the existence and operation of an officially recognized cycle is compatible with the omission he himself noticed of the intercalary month in a year which according to the calendar he constructed ought to be cmbolismic, and that such omission should be repeated over and over again in several years and in various periods through forgetfulness, as Mahler suggests, caused by iniportant events of a political or a military character which must have absorbed the attention of the authorities. Such collapses of the memory might occur only among uncivilized tribes who do not possess the art of writing, but never in countries like babylonia enjoying the benefit of an organized administration where the Government would draw up their calendars for decades and centuries in advance and refer thereto for a number of purposes in public life.

We maintain therefore for the Athenian astronomer, Meton, the privilege of the authorship of the nineteen year cycle which is testified to by the distinct statement of Diodorus of Sieily in X11, 36. If the cycle existed in Babylonia at all the tablets which are supposed to indicate it, being of the Selcucian period, would show only that the Persians copied it from Athens after the Macedonian conqueror introduced into their country the Greek civilization.

We have arrived at the end of our experiments. The chronology of the Assuan and Elephantine documents can be proved to be correct neither by the original length of the Jewish year uniformly consisting of twelve lunations, nor by the present Hebrew-Julian calendar retrospectively applied to a period long before the reform of the Roman ruler; nor by a shorter system which must have suggested itself to such Jews as might have settled in Egypt during the Persian, Pharaonic, Greek and carly Roman dominations and which in all probability was the first step in the arrangement of the national calendar as we see it in operation to-day; nor at last by the adinission that the Hebrew measuring of time used to be done with no set rules aiming at precision but only with occasional attenuts to obtain equilibrium. It is hardly credible that any other system of calendar could be thought of, and we feel ourselves fully justified in declaring the documents infected with the monstruosities we have been showing to be nothing else but the product of fraudulent speculation. If anything can make us nervous it is the fear of the readers' rebuke because we have adopted so minute and eomplex a process of argument when a simple reference to page 21 of the first edition of those papyri would have placed all students in a position soon to convince themselves that there is not the slightest warrant of soundness in their chronology. They would, for example, have seen that in the space of the 6 years which elapsed between

$$
\begin{aligned}
& \text { (Pap. B.) Chislev } 18^{\text {th }} 465 \text { B.C. and } \\
& \text { (Pap. D.) Chislev } 21^{\text {st }} 459 \text { B.C. }
\end{aligned}
$$

the difference could by no system aggregate to as many as 325 days which represent the interval between the Egyptian dates Thoth $6^{\text {th }}$ and Mesore $1^{\text {st }}$ exhibited by the same documents; they would themselves have objected that the accumulation of shortages in the six years could by no means have exceeded the 66 days if we were to reckon by the uniform standard of the twelve lunations for all years, or it would be reduced to an insignificant remnant if the present system of calendar had to be applied by which just every three or two years the discordance in correspondences between the Hebrew and the Julian calendars dwindles into an extremely sinall number of days.

But we are entitled to our readers' forgiveness in consideration of the enormous avalanche of learned essays, lectures and articles in all sorts of periodical publications wherewith we have been oserwhelued from the summer of 1906 to the beginning of this year, and which have made it advisable to inquire into this crucial point of the matter with all care and in such an exhaustive manner that no room for hesitation should be left to the disappointed who would see by our demonstration their happy belief in the existence of an uncxplored mine of historical and philological information vanish to smoke, and so much industrious scholarship wasted on an unworthy subject.

One must not wonder at hearing that even before we investigated so minutely the machinery of the Hebrew calendar in its relations to the Egyptian it
was for us a foregone conclusion that the dates of these documents originated from the fancy of a forger. We could not possibly assume that, while in Palestine the Rabbis of the first, second, and even third century of the Christian era were taking so worrying pains in their efforts to establish a permanent calendar, and disputes were rife, and nearly were declared ${ }^{1}$ ) outlaws all persons who, although being through their mathematieal learning able to offer for the purpose the contribution of their lights, abstained from so doing out of indifference, we could not possibly admit that during such an intense strain on the intellects of the nation no one in Palestine ever thought of turning an eye to his brethren of Egypt, in order to see whether they had found or tried a way out of the perplexity. It was impossible for our uind, even before the publication of the papyrus dealing with an alleged temple of Jahu in Elephantine, to adinit that there was no intercourse between the Jews settled on this island or in Assuan and those of Judaea, cousidering that the presence of Jews in a place means commerce and that the navigation through

[^14]the Nile to the eastern coasts of the Mediterranean was never interrupted.

Nor could we acquiesce in the absurd, although inevitable, admission that, while residing in a country whose monuments show that the reasoning faculties of its imhabitants werc guided by strict mathematical principles, and where - to remain within the limits of our subject - the calendar had attained a degree nearing perfection, the Jews not only suffered their own calendar to continue in the unsettled state to which traditon kept it bound, but to become so ridiculously erratic as is shown by the ludicrous instance we have illustrated in pp. 73-4.

## II.

A rather minute survey we have made of the Aramaic papyri ${ }^{1}$ ) which were brought to Europe during the last century and of the opinions expressed on their character has enabled us to find out the circumstances which favoured the forgers in perpetrating so audacious a fraud, and caused prominent scholars of great learning and repute to be led so far away from the right understanding of the whole matter.

In No. 13 of the Diario di Roma, 1826, we find the earliest mention of papyri covered with Semitic writing. They were the two fragments Nos. CVI, 1 and CVI, , now preserved in the British Museum whereto they passed as part of the Blacas collection purchased by its trustees, and a reproduction of which our readers will see in our plates II, III, IV, and V. Their itinerary was from Egypt to Rome, and thence to Naples beforc they landed on the British shores.

1) Until further developments in the pursuit of our independent rescarch we will consider this class of papyri authentic, as we do not feel justified enough to include them in a common ruin with the others.

On their first appearance in Europe the alphabet in which they are written was considered Phoenician, and the Abbate Michelangiolo Lanci who set forth this opinion presumed that the papyrus volume of which these fragments were only a sunall portion contained the history of some kings of ligypt. He said also that these were perhaps the fragments of one of the lost works of Sanchouniathon. The following year in his book „La Sacra Scrittura illustrata con monumenti fenico-assiry ed cgizion""') he mantained his original view but, placing himself on an ambiguous ground, pointed out the similarity offered by some sentences of the fragments to the fine style of laniel and the influence of the Hebrew grammar in the formation of the third person of the future (the, instead of the Aramaic J). He added that nobody should be misled by these words of his into the error that he would assign to these fragments a very remote antiquity; on the contrary, he believed that they could not be placed further backward than the l'tolemaie period. $\Lambda \mathrm{s}$ indications of their comparatively modern age he took the blanks separating the words from each other, the fine distribution of light and shadow in the shaping of the letters, and the constant nse of the matres lectionis which, being already a wellestablished rule, eaused the eopyist to write over the seventh line of CVl, B reverse a , which had by oversight been omitted in the spelling of the word wis. This last portion of his remarks is the most important of all,

[^15]and deserves the serious attention of the student who wishes to form a sound judgment of the period to which these fragments belong.
If Lanci had not willingly refrained from a detailed study of their text he would have pereeived that the Hebrew does not confine itself to a paltry influence as to grammatical forms, but so thoroughly permeates the train of thought exhibited therein as to betray their Jewish origin and purport. A disadvantage which prevented Lanci from seeing the true nature of the alphabet was the scarce materials placed in his day at the disposal of students of Hebrew palacography. No specimen of the Oriental style of Hebrew writing was known in Europe at the time, and none of the manuscripts whieh had theretofore engaged the attention of scholars hailed from places lying at any distanee from the shores of the castern part of the Mediterrancan. Had Lanci come across any texts written by a Hyemenite scribe he would at once have noticed their close approach to the kind of writing exemplified by the fraginents subjected to his investigation. But, besides the want of means for a comparison able to lead to the right conclusion, the material on which the fragments are written contributed in a large measure to the sensation ereated by their appearance, and although, as we have seen above, Lanci disclaimed any share in the excitement aroused by the novelty among Orientalists, he did not sueceed in keeping entirely free from the fascination which so archaic an article as papyrus is was bound to excrcise on everyone's imagination.

No wonder, therefore, that he never thought of bringing the date of these fragments as low down as the fifth century of our era to which we believe they belong.

The reader who will follow us in setting forth the remarks we have made on these two papyri will see on what ground is based this new contention of ours which differs alike from the Achemenides theory admitted during the last ten yenrs or so and from that propounded by the Librarian of the Vatican at the threshold of the second quarter of the last century.

At the outset of our handling in the British Muscum the originals of these papyri we have, like all others before us, noticed that No. CVI, B presents two written sides on the one of which the lines run continuously from end to end, whilst the other side exhibits a few remnants of a column and then, after a blank of considerable width, another column which in its lower part may be regarded as nearly complete. But nobody on considering such a remarkable variance has even suspected that the writing of the two sides might not be part of one and the same text, and that this one small piece of papyrus might have preserved fragments of two different works. Yet, the thing appeared very probable to us at once, and further examination proved that we had hit upon the mark.
We observed that on the undivided side of the papyrus there are to be seen seven lines and a few fairly distinct traces of another, whereas the other
side shows nine clear lines. The space between the lines in the former is more regular than in the latter, and its writing also exhibits a lightness of touch which is in evident contrast with the heavy appearance of the other. Nothing, for example, in the second can compare with the neatness of the last three lines

$$
\begin{aligned}
& \text {. . . . . . } \\
& \text { על . . . . . . . }
\end{aligned}
$$

of the first. It is true that there is no deep change from the characters of the one to the characters of the other, but the $y, \Pi, \eta, D$, and $w$ are visibly finer in the former than in the latter, the nicely curved Nun in and its sharp verticality in additional evidence for its superiority.

We owe a word of explanation for assigning the first place to the undivided side of this fragment contrary to the practice which has hitherto prevailed of regarding it as a back column. In our innovation we have acted in perfect accordance with the sound principle adopted by all papyrologists that the fibres are horizontal in the obverse and perpendicular in the reverse. For exactly the same reason in fragment CVI, A we must regard the side beginning with the words ק ל לה אבודוּ as reverse. The same differences in the number of lines, distribution of space, and quality of writing that we have pointed out in the examination of the other are also noticcable in this papyrus, and, if nced were, would come to support our view.

The difference in the state of preservation gave Lanci and all students afterwards the impression that, when the manuscript was complete the position in it of what is now the larger fragment preceded that of the smaller, and all attempts at an interpretation of the text were made on this basis. But, whilst in reality no evidence whatever justifies such an arrangement, the signs IIILXXXX שנן which cover what remains of the last line on the back side of the larger fragment afford a sufficient indication about the respective place which each of the two pieces originally occupied in the roll. That line contained the date at which the writing of the manuscript was brought to completion, and the signs we see at present give the last part of the date, i. e. the forty-third or forty-fourth year of some era to be determined by further research. When we pass to the elucidation of the text we will see that the meaning of the three final words in the last line but one of the same column is such as to allow the belief that they form a very suitable sentence for the conclusion of a tract. This is the view we take of the matter with the natural consequence that we place the smaller fragment before the larger, and consistently with the considerations we have been setting forth we make the following arrangement of the four written parts contained in the two pieces: ${ }^{1}$ )

1) Our argument being not on palaeographical minutiae, we have adopted the transliteration of the Marquis de Vogüe in Corpus Inseriptionun Semiticarum, II, tom. I, No. I45, whose rendering as well we have mostly accepted.

Plate II


CVI, r obverse

NB. Plates II., III., etc. correspond to parts I., II., ete.

Plate IV.


CVI, A reverse
E LIRRARY
O F
T H E BRITISH

MUsEUM.
:espond to parts I., II., etc. of our transcript.
(British Museum No. CVI, a obverse).

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#\mp@code{* . . . . . . . }
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    [ת]תתנהי כן כזוי עבדת לבנוהי
    לולא באתר ים יקטל 
    שעתרם בתמאי ומנח[ם]
            \ תחהך ותשלח
            ה עם אלחהן ולחש עור
                I
```

II.
(British Muscum No. CVI, в obverse).
לבני על תםחדא זי מלכא ושמע
בר פונש דו אחר ענה מלכא
בר פונש מליא זי מלכא אמר וע[נה] . .
[ק]טלת המו תהך בחרב חילך וח
5
באלך וגרמיך לא יחתון שאול וטללך
[בר פונ]ש על אלפי מלבא . . . . . במנצ. .
III.
(British Museum No. CVI, A reverse).
. . . . . . . . . . .
שו אלהי מצרין זי . [מצ] רין ויהוון . מה ותאבד צדקתא ואי
text the tone of a narrative where a king and Bar Punas are represented as carrying on a conversation, while the terminology shows that the subject was some warlike operation in which the latter had takeu part. The sentence ונרמיך לא יחתון שאול was addressed to someone mentioned in the tale, and expressing, as it did, that his bones would never be allowed burial constituted the most terrifying threat that a person in authority could utter against a subordinate. Bar Punas is described as likely to obtain the command of the battalions of the king (בר פונשש על אלפי מלבא) (1).

The number of words necessary to complete the sentences wherc gaps oceur would justify one in thinking that if the line were to be restored to its original fulness, it should be increased by one-half of its present length. About the total amount of columns in the roll it is absolutely impossible to make any conjecture, but it is safe to say that it contained on its front side a story or a series of stories of military or sundry subjects. In other words, it was a volume of מעששים such as the Middle Ages were so fond of.

[^16]If we turn now to parts III and IV the controver sial character of their contents will be easily perceived. The repeated occurrence of אלהי מצרין, the wail over the vanishing of justice (ותאבד צדקתאו), the word צער קער the very probable clause עֶ יבנון קריה which sounds like a lamentation over the progressing welfare of the unrighteous, then the words וביומן אחרנן wherewith begins a sentence changing in tone and describing the new state of things which will be introduced on the expected day of judgrment, and will culminate in the extcrmination of the false gods who are the cause of evcry present evil; all these are expressions which could only flow from the pen of a man crushed under the burden of the prevailing deprcssion but having faith in a final rescue from heaven.
The suppression of idolatry we have referred to is distinctly mentioned by the words ויתבנשון אלהי מצרין which close the text of part IV, and which, far from signifying a solemn gathering of the gods, prophesy their total disappearance when the triumph of justice will come and the sufferings of the race to which the writer belongs will cease. This little sentence is nothing else but a different expression of the idea conveyed by the clausc לחעביר גלולים מן הארץ והאלילים ברות in the very last section of the three daily services of the Synagogue, and, as we said before, makes a suitable conclusion for a tract. We know of nobody having up to the present put a construction of this kind on the words at issue, but we can say that the interpretation now proposed is based on the fact that the verb בנש, besides the ordinary meaning of collect-
ing, carries, although examples are very rare, that of sweeping away. Buxtorf quotes הוה קא כנשא אמתיה דרבי ביתא of Baba Meziha $85^{\text {a }}$ to which Rashi wrote the exegetic note ממבדת הבית, and in Brockelmann's Lexicon Syriacum we find a number of references to various authors who have used the verb כנש in the samc sense, while the living Syriac vernacular of the present day is in possession of the verb , כנש, to sweep, and of the noun כנשא to denote the sweeper (Maclean's Dictionary, p. 136).
From these remarks it follows that the clause may be regarded as the faithful echo of the above quoted להעביר גלולים מן הארץ where the idols are cxpressed by a word denoting litter and rubbish. Ezekiel in XX, 7, 8 and elsewhere casts this epithet on the gods of Egypt, while in XXXVII, 23 ולא יטמאו עוד בגלוליהם alludes to the moral dirt to be caught by one's coming in contact with the idols.

Our interpretation disposes of all possible doubts not only about the Jewish purport of these fragments, but as to theirs howing the train of thought which charaeterises post-biblical literature in a very advanced stage, while the intermingling in the composition of Hebrew with Aramaic is another mark of late Jewish origin.

When Wright published his fac-similes (Palaeographical Society, Oriental Series, II, pl. 25-26), he manifested a propensity to believe that these fragments are an Haggadah on Exodus I, but, lying under the spell of Lanci's statement, he lost sight of the fact that the

Haggadah is a kind of literature which up to the cap－ ture of Jerusalem by Titus in 70 A ．D．had not come into existence yet，and so contradicted himself by giving the late Ptolemaic period for their date．In Zeitschrift der Deutschen Morgenlandischen Gesellschaft，XXXI，794， reviewing Wright＇s work，Prof．Euting took a good step towards the truth by suggesting that these fragments might be of the early Roman－Egyptian period，and it is obvious that had this path been kept to scholars would have long bcfore now found out the real age of these literary monuments．

But in stepped Prof．Clermont．Ganneau with a novel theory，and caused scientific investigation to be misled into the wrong track．His field of action was the Revue Archéologique of 1878 and 1879，and his chief battery consisted of the two imperfcct lines preserved by the Drovetti Aramaic fragment which was brought to Europe immediately after the Blacassiani and is known under the name of Turin papyrus．We have repro－ duced it in our plate VI，and the following is the transliteration of it：
. אל מראיא מתרוהא מרת עבדך יחוי פחום

Gesenius ${ }^{3}$ ）had seen in this couple of lines the beginn－ ing of a Jewish hymn written in the Aramaic langua－ ge，and rendcred the two first words God my Lord．We may add that חיא חדה ושרירא also refer to God who

is described as living, unique, and permanent by the Aramaic equivalent of which, although in a somewhat different order, occur so often in the Hebrew prayers. The words $ח$, חדה, חיא, עבדך, and ושרירא are so clearly written that any student who has his eye trained in the reading of ordinary Hebrew characters can decipher them without effort. The word מתרוהשׁM offers some difficulty both in reading and understanding, while the derivation and meaning of is also a real puzzle. In the absence of a plausible solution the riddle ought to have been left waiting until some incontrovertible text came to disentangle it. But it was the time when Clermont-Ganneau was getting more and more familiar with the Greek classics, and he was delighted at noticing some similarity between the first of the above mentioned words and the Persian name Mı © ocvorns. He thought he had made a discovery, and his vision was unfortunate for science which not very long before that date he had so meritoriously saved from a serious blunder by detecting the Moabite pottery forgery. That supposed, but not in the least certain, identity led him to nothing less than the conclusion that the Turin papyrus as well as all other Aramaic papyri in public and private librairies were monuments of the time of the Achemenides rule in Egypt, and in no way connected with Judaism. Henceforth everything was bent in the dircction of procuring support for this view.

אל could not possibly have denoted God even in the mouth of a Jew who might have chosen to call the Almighty in a form consonant to the religious
traditions of his race; but was the equivalent of the preposition to, notwithstanding the fact that the Aramaic for the latter is the inseparable ל, and אל occurs nowhere in this sense. $=$ oto, Clermont-Ganneau said, will be a precious addition in the Aramaic dictionaries of the future. ${ }^{1}$ )

To think that מראי could apply to God was absurd in Clermont-Ganneau's opinion who inight, and ought to, have been reminded that in an Aranaie prayer which is recited on the opening of the Ark of the Law for the taking out of the scroll God is called the Lord of the world, and that in the supplications which are chanted in the weeks preceding the Day of Atoncment a paragraph starts with the words מרנא רבשמיא לך מתחנן בעבדא דמתחנן למריה where is used first to express the Lord of heavens in the invocation, and secondly the master of a slave in the body of the sentence. In the Turin papyrus this word was asserted to stand as a form of address placed lefore the supposed name of the Persian dignitary, Mı $\rho_{\rho \alpha v i \sigma r n s . ~}^{\text {. }}$

This being granted, what should prevent one from taking פחח for the name of an humble petitioner who would style himself a servant, עבדך? It is true that the name is not to be found in any of the Persian texts, nor in the Egyptian; but Clermont Ganneau quotes about a dozen proper names slightly differing

[^17]from each other and eventually crystallising into one which became famous as that of a Saint, $\boldsymbol{\Pi} \boldsymbol{\alpha} \boldsymbol{\chi} \boldsymbol{\omega} \mu \boldsymbol{\mu} \boldsymbol{s}$, and which, according to the new doctrine, should no longer be thought to signify the man with replete shoulders, but, as is fully demonstrated by the Turin papyrus, to be derived from the language which was spoken either by the natives of the valley of the Nile or by their rulers in the fifth century before the Christian era.

As to חיא חרה ושרירא, they were a greeting phrase, a wish. When the new theory sprang up in its author's mind was taken for the equivalent of life with an allowance, of course, for the final $\mathcal{N}$ which must have taken there the place of $a^{9}$; חדה was supposed to express joy, although wc know that the equivalent of the latter is חדוה in Hebrew and in Aramaic; and ושרירא was considered to be an adjective, notwithstanding its disagreement in gender with the second noun, and in number with the first, while the 9 would be a conjunction serving no purpose. All this, however, except the remarks passed by ourselves, seems to have been put on record only with the object of showing the progress of the author's philological investigation, his ultimate conclusion being that חיא חרא ושרירא are all adjectives, although it is still hard to conceive how חדח was made to come from חדו and to ex. press joyful.

But these are trifles, and the essential would be that the Turin papyrus should have preserved to us the commencement of a letter similar in texture to that inserted in Ezra IV, 11, and, inter alia, should be a surviv-
ing specimen of the material form in which official despatches used to be written at that far distant date. The resemblance in the introductory formula could hardly be questioncd, and everybody can see it, it was said. The petition in the Bible begins with the words על אר אחששתאא מלכא עבדיך אנש עבר נהרח the same place the papyrus bears אל מראי מתרוהשת , ועבענת ; for the explanation of which the old versions and modern scholarship afford no effective assistance, correspond in our papyrus the words חיא חדה ושרירא!

It having thus been "established" that the two imperfect lines of the Turin papyrus are the remnants of an administration document of the time of the Persian rule in Egypt, the other papyri were to be examincd with the object of seeing whether they could supply any support to the new theory. This was done by Clermont-Ganneau who in a Vatican papyrus (Corpus Inscriptionum Semiticarum, II, tom. I, No. 147) found the word מדינתא, in another of Berlin (ibid. No. 149) the term גנזא, and in a third one of the Louvre (ibid. No. 146) the letter-group פחח coming after something which was read בר by some palaeographists, but cannot be deciphered according to others. These words would conclusively prove the national charaetcr and the age of the documents. מדינתא and גנוֹא being words of the Persian language could be found only in Persian documents, and פas the title of a dignitary of that monarchy. This was ClermontGanneau's argument to which, however, it ought to
have been opposed first, that if פחדח is really preceded by בר it ean be nothing else but the last in a series of words giving in extenso the name of one of the many persons to whom the money mentioned in the papyrus was issued, and seeondly, that if meant a dignitary it could by no means be used in the list without the addition of a final $\boldsymbol{\aleph}$, the absolute form being insufficient in an account to express the recipient of something, and the emphatic פחתא being the one required for the case.

One more rcmark which ought to have been made is that the Persian origin of the other two terms proves nothing in favour of Clermont-Ganneau's contention. מדינה, or מדינתא in its Aramaic form, has been used by Jewish writers in all times from the pcriod of the Persian influence onward, and the word occurs in the Mussaph prayer of the New Year where it signifies the various countries of the world, ועל המדינות בן יאמר איזו. לחרב ואיזו לשלום, as well as in the catalogues of to-day's second-hand booksellers when the country in which a work was printed is indicated, etc. As to the other word, not only the noun גנזא but the stem from which it has originated appears in all its multifarious forms both in Aramaic and in late Hebrew. גנו is the verb used in all cases where reference is made to the apocryphal litcrature, and גנזח is a word which nowadays is too often in the mouths of all Hebrew students to call for explanation. To think that a document was drawn up during the Achemenides domination for the sole reason that it contains a term or two derived from the Per-
sian is tantamount to believing that England is still under the Roman rule because in talking and writing we use a certain number of Latin expressions, or to the assumption that the relations between the British Isles and France have undergone no change since William the Conqueror because some French mottos and terms have not been dismissed yet from official phraseology.

Under the illusion of his supposed discovery Cler-mont-Ganneau was led to declare that the four columns of the Blacassiani papyri are a report from a Persian official on a mutiny which it would have been his privilege to quell; but we have already in our footnote of page 91 disposed of the construction put by him on the two clauses which in his opinion supported that view.

We have thus dealt in some way or another with all the important Aramaic papyri which were known in the nineteenth century, and the only thing in connection with our inquiry which remains to be said is that Clermont-Ganneau, while duly noting how regular are in the Turin papyrus the spaces dividing the words from each other, entirely forgets that in palaeograply this is an unnistakeable indication of late age. Separated words are not to be found in any of the Greek epigraphic monuments which extend down to the eighth century nor in the Greek papyri of even the fourth century of our era ${ }^{1}$ ), and if Hebrew can be taken as the

[^18]representative of all Semitic languages let us bring to our mind the unexisting geographical name $O v \lambda \alpha \mu \lambda o v \zeta$ (Gen. XXVIII, 19) and the expanded form ミоvбкжєiц (I Kings, XI, 40 ; XIV, 25 etc.) which found their way into the Septuagint through the erroneous grouping made by the translators of the continuously written letters which formed and owing to the wrong partition, coupled with a dittography, of the elements of

We are going now to inspect the Aramaic inscriptions of Egypt which have played a conspicuous part in Clermont-Ganneau's error. It is to be regretted that the mystery in which the provenance of the Carpentras slab is wrapped up should prevent us from giving a sharp judgment about its inscription ; ${ }^{1}$ ) but we cannot

[^19]dispel from our minds some doubts arising from the state of separation in which its words are from each other. Our position, however, is quite clear in the case of all other texts of this class which contain more evidence than is required to show that they are the products of forgeries.

The first Aramaic inscription, if one may call it so, which exercised the ingenuity of scholars in the last century is the one consisting of a single word, שמיתי, which is cut in the Salt slab reproduced by our plate VII. Our opinion about the character of this word will be illustrated best by the consideration of the whole sculptural representation, which as an Egyptian monument is sure to satisfy the most fastidious of critics by the beauty of its design, the neatness of the lines, and the skilful treatment of all details. No doubt can be entcrtained as to the set purpose of the artist to try and do something by which he might win the esteem of judges whose taste was above the common. Keeping within the limits of our investigation, we will observe that after the winged Uraeus at the top the design shows two main parts with figures, the third, at the bottom, consisting of a symmetrical representation of doors and pilasters such as are entirely missing in all similar slabs, which exhibit this lower compartment unprovided with any ornament but either bare or covered with inscriptions of whose character it will presently be said what one should think.

[^20]

The Salt slab with one Aramaic (?) word
In a private collection at Jorking,

In the pieture-covered sections of the slab three tablets had been reserved for some lettering which, however, was never sculptured. Now what we want our readers to consider is whether it ean be supposed that after such an amount of talent spent on his composition the artist would have spoiled his work by so elumsily assigning to the Aramaic (?) word the position it was seen to occupy when Salt came in possession of the slab. We do not doubt for a moment that they will agree with us in thinking that this word has as a later addition disfigured the beautiful monument either through a vandalic hand serving a mercantile purpose or - which does not seem probable enougl - in consequence of the removal of this stone from its original place in order to cover the grave of a person belonging to an Aramaic-speaking community.
Visitors to the British Museum will notice on the left hand wall of the Egyptian Gallery a goodly number of slabs which all on their lower part, notwithstanding its considerable dimensions, show no sigus whatever of chisel work. If we compare these with the monument just described - which, according to Prof. Maspero, is of the second century B. C., and betrays the influence of Greek art - we are quite naturally led to the conclusion that the latter by its linear representation of architecture reveals an intentional inlprovement on the others whose utter blank in the place under discussion had begun to lhurt the cye and taste of onlookers anxious to part with tradition. In all these slabs the lower part was never intended for an inscription, and the fact that on the opposite wall of the
same gallery are affixed so many of them with Greek inscriptions of the Coptic period covering what is blank in the others will hardly disprove the view we take of the matter. Some gross errors of grammar and syntax, often coupled with obscurity or lack of taste, and the quaint dating after the first, third, thirteenth indiction ${ }^{1}$ ) and so on with no thought whatever for a precise

1) The indictions were an institution connected with the fiscal system of the Roman Government, and consisted of one year each. Since Constantine I.'s reign they used to be counted up from the first to the fifteenth when, the cycle having reached its end, they were repeated again in the same order and in an uninterrupted suceession, although with no care for keeping on record the number of the fiscal periods which had evolved. Thus the indiction formed no essential part of the date, to whose definition, so far as historical chronology is concerned, it did not contribute in the least. In fact, all documents where the indiction occurs give it alongside with the year from the creation of the world, that of the Christian era, or with the names of the men who held at the time the consular or some other office. The reekoning by indietions would have been practicable and useful in history if, as is the case with the olympiads or eould he with the Hebrew periods, the number of the particular cycle of which the indiction, i. e. the year, formed part were also given.
While waiting for the proof, we made an excursion through the Greek and Coptic epitaphs illustrated in Mr. H. R. Hall's book of 1904, and we came to the conelusion that in No. 604, although singled out on aecount of its unusual wording, we have the standard formula for the dates of all genuine epitaphs and a clue to the meaning whieh was at the time attached to gravestones. The object of a sepulchral inseription was not history, hut a reminder for the surviving of the day on which prayers had to he offered up for the rest of the deeeased's soul. Therefore, the words "The day of the remembrance of the blessed brother Georgios the Monk, Thoth 17" with no further addition fully served the purpose. Other inscriptions of exactly the same form'are Nos. $404,1339,1256,26791,622$, and 607 , the extreme ly faint traces at the end of the latter as well as those at the end of No. 604 affording no reasonable ground for the hypothesis that they are the remnants of the word ivoıcriшvos. No. 1299 is very instructive inasmuch as it shows that for "Rebeka the good nun, the virgin who ended (her life) well" no prayers were required, and consequently bears no date whatever.
determination of the time at which the death took place are serious puzzles which cannot but make one sceptical about the character of these inscriptions and raise suspicions in one's mind.

Until further information we feel bound to regard these epigraphic texts as late encroachments on origin-

No. 1208 gives the year of the Martyrs' era, and alongside with it the indiction, which was the $10^{\text {th. }}$. No. 1336 gives two dates which ean be verified, but makes no mention of indictions. The last inseription but one sulstantiates the remark we have made above, and so do the obverse and reverse of No. 1196 whieh give the indiction but not without some names of persons then discharging publie funetions.

No. 400 cannot be taken seriously, and one will never understand how Johannes, who was a ehild when he parted from his mother on his flight heavenwards, was invested with the dignity of deacon. The other epitaphs exhibit literary flaws of so great importance that they cannot, aceording to the prevailing habit, he ascribed to slips of the chisel. In No. $1046 \mu$ иे גuTy $\frac{\text { йs }}{}$ sounds excessively modern for a sepulchral inscription anterior to


 823 would find no support in any authentic texts of any period. The unnecessary as well as unaesthetic double article in $\tau \widetilde{\omega} y ~ \alpha \hat{\alpha} \gamma i(\omega\rangle \tau \widetilde{\alpha} \nu \pi \alpha \tau \varepsilon \in \rho \omega$,
 very elcar but meaningless letter-group hapaar $\Omega$ are great puzzles and induce in one's mind the suspicion, nay, the helief that No. 408 comes also from a similar factory which the Diocletian year 482 appended to the indietion eould not save from detection. "Evg is not an indifferent blot in
 which are wrong phonetically, grammatically, and syntactically. That $\alpha_{\mu} \mu \nu \nu$ following no form of prayer in Nos. 1335, 1326, 1338, and 1350 could hardly be accounted for, and in the last two instances the evil is aggravated by terrible misspellings and by a letter-group with no meaning.
It is noteworthy that some of the stones bearing these objectionable inscriptions were the property of the already mentioned Salt whose purse seems to have been more than once a prey to impostors used to defile genuine works of art with obtrusive writing, while some others were sent
ally uninscribed slàbs, and do not hesitate to include in this class of objectionable documents the Berlin Museum inscription (reproduced in our plate VIII) which was placed on the market and purchased by the German 'Consul of Egypt, Travers, in the year 1877, i. e. about the time when Clermont-Ganneau achieved a
from Nubia to the Earl of Mountnorris during the second decade of last century. It remains to say that to Nos. $9110-9137$ of Boeck's C. I. G. has.to be applied the same as above method of investigation, and attention must be drawn to the inaecuracy in most labels of the British Museum inseriptions
 "the twelfth year of an indiction" which is not correct, and means nothing. It is not eorrect, because if any noun were understood after the numeral that should be ezous or zyraviot, either in striking disagreement with the termination of $\partial \omega \delta \varepsilon x \dot{\alpha} \tau y ;$ and it means nothing, because indiction, far from expressing the whole period of fifteen years, always stands to connote one fifteenth of the period, for which latter there does not seem to have existed an established term.

Further on in Mr. Hall's book there are more dated pieces and, although it is a rather awkward task to know the chaff from the wheat in archaeological eollections, one may feel nearly sure that the tax-receipts illustrated there are genuine and furnish undoubted examples of documents where dating could with no fear of insufficieney be limited to the month and indiction or even to the indiction alone, their purpose being exclusively of a fiseal character and their interest only transient. Special notice deserve Nos. 19954 and 14107 where delayed payment is aeknowledged in tho $4^{\text {th }}$ and the $5^{\text {th }}$ year of taxes due in the 3 rd and the $4^{\text {th }}$; while, if all numerals in No. 18722 have been deciphered eorrectly, we would have in it the very instructive instance of taxes due in the $15^{\text {th }}$ year but paid in the $1^{\text {st }}$ indiction, i. e in the 1st year of the following period.
One must not, however, consider all thesc pieees authentic; No. 25676 is dated ,twenty-third indiction" whieh it is to be hoped will eause no scholar to undertake inquiries and build up theories about periods stretching beyond the reeognised length of fifteen years, as grammarians should not be tempted to extricate new rules of phonetics, morphology and syntax from the very singular text of No. 5853 for the condemnation of which those aeeents and spirits - to say nothing about their faulty nature covering capital letters afford superabundant evidence.

Piate Vill.

well-deserved fame by detecting the well-known hage impostures, but failed to realise that the forgers were apt to display as much disrespect for the land of Osiris as they had shown for the sacred inheritance of Jehovah, and that for unscrupulous money-making Cairo and Alexandria was as suitable a ground as Jerusalem and Jaffa. Like all sensible industrials the forger studies the fancies and wishes of the people in whose circles he expects to find an outlet for the products of his factory, and the above mentioned article of the Revue Archéologique reechoes the then fashiouable talk in the circles of Semitic scholars who found it absurd that Egypt, in which archaeological labour had obtained so large a harvest of monuments of all native dynasties and foreign dominations, should have preserved nothing relating to the Persian rule whose duration had extended for about 200 years. The impostors were not unaware of the generally adopted view that Aramaic was the official language ${ }^{1}$ ) of the Achemenides in their relations with the subjected peoples, and the inscription of the Berlin slab is the fruit of what could have suggested to them the craze and taste of the time.
When Lepsius edited the text of that inscription, having in view the Blacassiani papyri he observed not without surprise that up to that moment no Aramaic

[^21]texts were known anterior to the latest part of the Ptolemaic period, and took worrying pains in his endeavours to restore the text of the other inscription, the hieroglyphic, the elements of which were scattered with no sense of artistic propriety here and there among the figures sculptured on the monument. He noticed a strange confusion in the signs representing the name of the woman mentioned in the inscription, the absence of the name of the man who was indicated only by his surname, and the faulty shaping of many a hieroglyphic. Professors Euting and Nöldeke helped him for the Aramaic text which latter was subsequently studied by other scholars, and the result of all this enormous toil and moil was summed up in C. I. S., II, tom. 1, No. 122 with this Latin translation of the Egyptian text:

Oblatio Osiridi data, principi Amenti, deo magno, domino Abydi, ut det sepulturam bonam (genio) fidelis apud deum magnum matronae Alhitobu. - Peregrinus, cognomen (ejus) Hitop,
and the following rendering of the Aramaic: ${ }^{1}$ )
Benedicti Aba, filius Hor, et Ahatbu, filia Addaya, ambo perfecti et divino favore adjuti, accedentes coram Osiride deo. Absell, flilius Aba, et cujus mater Ahatbu,

1) Our plate VIII was taken from Tab. XI of C. I. S., II, tom. I; and 122 B exhibits an enlargement of 122 a which has been read thus:
 קוּ


sic dixit, anno IV, mense Mehir (regni) Xerxis, regis regum. Manu Pamen...
which texts a consensus of scholarly opinion pronounces to be like each other and identic in purport, but which we beg leave to observe offer no items approaching similarity, except perhaps the name $A$ hatbu and the extremely doubtful form Ahitobu which, as stated above, is the female's name restored with great pains and considerable hesitation by Lepsius to whom a good deal of objectionable assistance was obviously tendered by the name of the Aramaic text lying there before his eyes.

After these remarks we will leave the reader to draw his own inference about the value and weight of this inscription.

In 1903 the field of Semitic palaeography was invaded by the inscription (plate IX)

$$
\begin{aligned}
& \text { בר מרנא } \\
& \text { רב חילא זי םון עבד } \\
& \text { בירח םיון הן מחיר } \\
& \text { שנת שבע ארחחשםש מלבא } \\
& \text { [ל',ו.רנ.תי אלהא דרות }
\end{aligned}
$$

which has been confided to the jealous custody of the Cairo Museum, and illustrated by a report of the Marquis de Vogiué to the Académic des Inscriptions et Belles-lettres on July $3^{\text {rd }}$ of that year. It professes to be only twenty-four years later than the Berlin in-
scription, but the forms of their respective alphabets reveal such a distance in their development as could be covered only by a long series of generations. We have already seen in the first part of our demonstration the absurdities implied by the date of this funny document, and without doing it the honour of a further discussion we will proceed to consider the papyri not yet investigated in the present discourse.

In 1898-99 was purchased at Luxor with the Prince of Hohenloe-Langenburg's funds a papyrus which went to enrich the stock of the Strassburg Imperial Library and after a considerable length of time, in 1903, was transliterated and with a translation and notes submitted to the Académie des Inscriptions et BellesLettres by Prof. J. Euting who, however, distinctly said that he had failed in his efforts to make up from the text any sentences with a coherent meaning, that he had long been unwilling to present to the public a shapeless mass of disconnected limbs, but eventually decided to edit the text in the hope that twenty eyes might see better than two, and that fellow-students more fitted and keener than himself might elucidate the sense of many a passage which had remaiued obscure to him ${ }^{1}$ ).

[^22]Here is the text as deciphered by Prof. Euting:
A.

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1 'הנגן אנחנה ביץ דגן זי מצריא מרדו אנחנה מן מראו
                            לא שבקן
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3 אוֹל על מלבא זנה דושכרהא זי כמריא זי חנוב אלה
            עבדו ביב ברתא 
4 דמונית עם וֹרוֹלוֹ זי פרתדך תנה הוה כםף ונבםן יהבו
                            לה איתי קצת 
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                                    במפציעת בירת י¿
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    B.
    1 וכען שורא זך בנה במפציעת בירתא איתי באר חדח
זי בניה
2 בנו בירהא ומין לא חםרה להשקיאֹ חילא כזי הן
הנדיץ יהוחן
3 בברא זך מיא שתין במריא זי חנוב אלך ברא זך טכרו
חן אוֹד
4 יתעבד מן דיניא תיפתיא גושביא זי ממנין במדינת
תשט
5 יתידע למרא; לקבל זנה זי אנחנה אמרן או פרישׂ אנחנה

Ten very legible and eontinuous lines would in the
ordinary way be more than is required for a man of Euting's learning and intelligence not only to make out the general purport of a text, but to get deeply at every minute detail of its contents. Philological science makes a just estimate of the value and kind of work done by ancient Greek authors through such scarce remains thereof as, put together, do not equal in extent the above fragments, and since the latter are supposed to bc part of an autograph they ought to offer none of the difficulties of interpretation which are the usual lot of all literary monuments that have been transmitted to us through a succession of copies made in a long course of ages. We claim no encomiums for this observation which it is beyond doubt that Euting himself would have made had he not been under the spell of the theory propounded in 1878 which, alas! before affecting him, already in 1889 had won the adhesion of another epigraphist, the celebrated Marquis de Vogié, who is so well-known not only as a first class erudite, but for exquisite charms of style both in his French and Latin writings.

Euting as well as Clermont-Ganneau ${ }^{1}$ ) first took the chronological indication in the second line of part $A$ as the actual date of the fragment, but on further consideration it was found that it gives only the date at which the historical event alluded to in the docu-

[^23]ment had occurred. Euting noticed the striking difference in the scripts of this papyrus and the Berlin inscription, but thought that the seventy years intervening between them were the lapse of time required for the change they show.

The script of the Euting papyrus does not differ in the least from that of the papyri reproduced in our plates, and a comparison of any of the latter with plate VIII will be quite enough to arouse scepticism about the idea that so short an interval would do for the far-stretching evolution in the forms of the alphabet which is represented by the characters of the two texts. But there is more conclusive evidence than that, because by widening the field of observation one will see that the comparison can and must be made no longer between the Berlin slab and the Strassburg papyrus which are separated by at least seventy years from each other, but between the Berlin and the Cairo (plates VIII and IX) slabs which according to their dates stand from each other at a distance of no more than twenty four years. The critical student cannot help asking whieh way in one and the same province or district, the Phoenician-like letters of the fourth year of Xerxes ( 482 B.C.) evolved into the half-square characters of the seventh of Artaxerxes (458 B.C.)

We are going now to draw the reader's attention to a point which is raised by the chronological indication fourteenth year of Darius. The document speaks of a rebellion, מרדו, and Euting rightly observes that there is no record of a muting in Egypt in the year

508 B.C. which was the fourteenth of Darius I. We are, therefore, bound to resort to the hypothesis that the event occurred in the year stated but of Darius II.'s rule, i. c. in 410 B.C. But if we have to abide by the hitherto accepted chronology for the vicissitudes of the Persian domination in Egypt a mutiny at the above date would sound like a paradox, as we have been taught (Smith-Marindin's Greek and Roman Biography etc., Darius II.) that the effeminate Darius Nothus lost entirely hold of Egypt in 414 B.C. when a local leader, perhaps Amyrtaeus by name, became the sovereign of the country over which he ruled up to 408 B.C., being the sole representative of the twenty-eighth dynasty. Having long ago regained her freedom and independence, Egypt on assuming a hostile attitude towards the monarch of Persia in 410 B.C. could not be said to be in a state of rebellion as the papyrus would have us to believe, but in a condition of regular, and international warfare.

That the position was such we gather from Diodorus of Sicily XIII, 46 who relates that Tissaphernes, being in need of apologizing to the Lacedaemonians for not having, as per agreement, ordered the imperial fleet to sail against their foes, the Athenians, argued that he had to attend to more serious business such as was the danger sprung from the Arab and the Egyptian kings' conduct who had been contemplating a joint




For the corroboration of his view Euting refers to

Thucydides VIII, 35, but we are afraid the reference is altogether erroneous with regard to Amyrtaeus who is mentioned only in $\mathrm{I}, 112 ; 3$, in connection witl the outbreak which took place in Libya and western Egypt in the year 450 , i. e. in a quite different period, and of which our historian must have a personal and trustworthy recollection. Euting's reference is also erroneous with regard to the meaning of the words $\tau \dot{\alpha} \mathcal{\alpha} \boldsymbol{\alpha}^{\prime} \mathcal{A} \dot{i}$ $\gamma \boldsymbol{v} \pi \tau 0 v \delta \lambda x \alpha \dot{\delta} \delta \alpha S^{1}$ ) which signify nothing else but merchant ships coming from Egypt, and in all probability being laden with corn of which at that moment the Lacedaemonians were sorely in need. Part of the flotilla which had just arrived from the Peloponnesian waters was asked to watch off Triopium the passage - and to effect the capture - of these vessels which were neutral and had nothing to do with the war. This is the only construction that can possibly be put on Thucydides' words, and a perusal of the whole book VIII will show that the object of all transactions between the two Satraps, Tissaphernes and Pharnabazus, on the one hand, and the Spartans on the other was the securing of provisions and salary for the latter and the weakening of Athenian influence in Asia Minor to the advantage of the master of the former; while Egypt remained wholly outside the range of negociations because in the year 412 B.C. she formed no part of the Persian dominions.

We know that for the past three decades Egypto-

[^24]logists, putting aside time-honored notions with not even an appearance of reason, have spoken of a supposed Amyrtaeus II, and have tentatively altered the date of Egypt's independence into 404 B.C., but all their efforts ended in V. L.'s sensible advice (Grande Encyclopédie, II, Amyrtée) that „l'histoire de cette courte dynastie de six ans a grand besoin d'être étudiée de nouveau dans ses détails'. For the sake of science's credit, we hope that in pursuing this task it will take into no account the mock evidence offered by the concocted document under examination. We need not point out that when the fever of novel theories is rife the quack is too shrewd not to realize that nothing would stimulate so much the interest in the stuff he dispenses as the inclusion in it of some ingredient which would lend strength to a dwindling imagination and prop up tottering opinions.

After Euting it was the turn of Prof. Halévy to take up this papyrus, and in the Revue Sémitique, 1904, pp. 67-78 he tried with no result whatever to explain away its lexical difficulties, while Clermont-Ganneau beaming with joy spoke of this precious discovery at the Académie des Inscriptions et Belles-Lettres on August $13^{\text {th }}$ 1903, and again, on the re-opening of the Collège de France after the vacation, he spent the whole first semestre of 1903-4 eulogizing and extolling the importance of this wonderful document. Clermont-Ganneau was the most fitted person to detect the imposture and denounce it, everyone would have listened to his authoritative voice, and by so acting he would have
rendered a fresh great service to science. But the forgers had adopted a policy which could not fail to bear fruit, and hypnotised the most dangerous of their enemies by including in their new fraud the word מראן with the meaning he had ascribed to it in illustrating the Turin papyrus, and by coupling it with ארשם as the name of a high Persian official which sounds so alluringly like the stem of ' $A \rho \xi \dot{\alpha} \nu \eta s$ once conjectured by Clermont-Ganneau to be the addressee of the report he presumed to have identified in the Blacassiani fragments (Revue Archéologique, Vol. XXXVII, p. 25, footnote 3).

Never trick was played with greater skill, and never succeeded so nicely. Clermont-Ganneau's happiness in finding unexpected support to his generally discountenanced theory of a quarter of a century ago was too great to allow him the coolness of mind necessary to notice the lying trap, and fell into it magnificently. His communication to the Institut de France was a song of victory, and the tune was subsequently amplified in the lectures which have been summed up for us in the Recueil d'Archéologie Orientale, VI, pp. $221-246$. But all notes in the song are not sufficiently clear, nor equal in soundness; a good deal in the composition still remains beyond comprehension, nor does the author claim to have accomplished anything able to stand to the end the test of a serious critique, although by a foible inherent in human nature he wants the audience to declare itself fully satisfied. That word המונית of A 4, for example, is to him the source of much uneasiness, and his recourse to Iranian
instruments does not help him in creating finer strains. Again, Persian art and Arabic artificiality with the accompaniment of sweet-voiced Polymnia utterly fail to let us grasp the bearing of that הנדיץ in B 2, and, whilst we are treated to the hitherto unknown homophony of 1 and Elephantine, a thick wall of dots bars the way to the catching of the harmony in A 5 where the same $\boldsymbol{Z}$ puts in a fresh appearance engaged in a full, although ill-defined, performance amidst a bold party of stalwart dancers.
But leaving all metaphor apart, we will say that, after the squeezing of all dictionaries, the appeal for help to all available historical sources, and all the eonjectural interpretations he allowed himself, ClermontGanneau's translation

A . . . . . . . . . . . . . . . . . . . . . . . . . . . . sont révoltés, nous, nous n'avons pas abandonné (le parti) de notre seigneur, et l'on $n$ ' a trouvé rien de mal à nous (reprocher). En lannée 14 du roi Darius, alors que notre seigneur Archam s'en fut vers le roi, voici le méfait des prêtres de Khnoub. Ils ont fait une machination (?) dans la ville forte d'Elephantine, avec Wi...g (?) qui était là (en qualité de) [......]; ils lui ont donné de largent et des richesses. Il y a une partie $d u[\ldots .] d$. roi qu' $[$ il a ....?] [...] ] de la fortresse, et il a [...] un mur dans la brèche (?) de la fortresse d'Eléphantine
B. Et maintenant il a construit ce mur dans la brèche (?) de la forteresse. Il y a un puits construit à lintérieur de la forteresse, ne manquant (jamais) d'eau pour abreuver
la troupe; alors même quils seraient (un?) handiz, (les soldats) pourraient boire ̀̀ ce puits. Ces prêtres de Khnoub ont bouché ce puits. Si une enquête est faite par les juges, les chefs et les auricularii qui sont en fonction dans la province de la région méridionale, notre seigneur sera renseigné par le contrôle de ce que nous avons dit et exposé
no better than Euting's and Halćvy's assists one to get at the bottom of the matter, and the want of cohesion between the sentences remains as hurtful and hopeless now as it was when noticed by the first editor of the papyrus. It is impossible to imagine the existence of a human brotherhood whose leaders might have conceived and expressed their ideas in the lower-than-childish manner which is exhibited by the lines under discussion, and we should be grateful to the student who could show among the avowedly genuine papers written in any language or dialect of the world not an autographed petition like the one of this Strassburg papyrus, but even a far distant copy from an old original lost in the whirlpool of ages which would be fraught with half the difficulties that have in this supposed document so scandalously and so fruitlessly overtaxed the intellects of so many scholars.

In his unbridled, although quite explicable, enthusiasm Clermont-Ganneau became unaware of the trcmendous change of front he was making by considering the Strassburg papyrus a memorial of the Jews to a Persian authority, whereas in 1878 he made a
distinct statement that his object was to show that the Turin, the Blacassiani and the other papyri of the same class had nothing to do with Jewish history or literature, but were documents interchanged between Gentiles in the service of the Achemenides dominators of Egypt.
But, while science derived anything but benefit from these inconsistent conclusions, the forgers soon thought of making good profits from the fresh fallacy. When they were busy forming their plan for papyrus A ${ }^{1}$ ) they never dreamed of any mention to be made of Yeb or of Jews in any part whatever of Upper Egypt, but contented themselves with representing the business recorded therein as transacted by Aramaeans, ארמין, and in Syene. It was not till after Clermont-Ganneau

1) The script of this papyrus which is reproduced in our plate $X$ supplies a most convincing proof about its impurc origin. One sees here a quaint medley of ancient-like and modern characters, the latter being predominant in places. No special training in Hebrew palaeography is needed to enable one to read in the ninth line tho words קריב ורחיק בעל רגל וקריה; the only dificulity in the following $\boldsymbol{T}$ is caused hy the use of a final 7 instead of the medial $\beth$; and in appears in its archaic shape; the words offer nothing uncommon, but are followed by למבנה, where the $\mathcal{3}$ was copied from the Blacassiani and after which y y was written with no great effort for imitation.

Passing to line 14 we read ואנחת שליט למפתח with only one letter, the - in the last word, written after the Blacassiani, which same letter occurs again in the group תרעא זן ולמנפק, while before it and up to the end of the line nothing stands to tire the eye and brain of the unskilled, the only noteworthy item in בשוקא (rabbinical) with square letters.

Attention deserves the last word of line 18, אגר7, in which the letters are one and all late Phoonician and undoubtedly were copied from the Aramaic plates of Corpus Inscriptionum Semiticarum. The imitation was triod in a few more places of this very line and in other parts of this papyrus, hut the forger soon lost patience and thought the trouble unnecessary.


Papyrus A in the Sayce-Cowley edition. BODLEIAN LIBRARY
to thee page 120.
started his lectures in 1893 that Lady William Ceeil purchased papyrus B in which the contraeting parties are called Jews, ידודין, and their residenee is said to have been Elephantine. The newest theory created new circumstances, and the manufacturers who were only too glad at seeing a wider field with greater possibilities opened to their industry proceeded to innovation in their turn. Hence the changes, and the fact that line 17 of the last named papyrus gives איתן בר אבה as notary public of Syene is of no consequenee, eonsidering that, the latter being the town or the capital of the province, the inhabitants of the fortified island lying opposite it were likely, if not bound, to have reeourse to the services of a man of Syene. Papyrus B is not the only document offering these eharacteristics, but papyri $\mathrm{C}, \mathrm{D}$, and H where also the contracting parties are Jews show them domieiliated in Yeb, whereas in papyri E, F, and G which give Syene as the abode of the parties the latter are all Aramaean for the simple reason that no scholar has ventured yet a hint that there might have been Jews in the mainland as it was eonjectured that there had been a number of them on the island within the Nile. Papyri J and K putting Aramaean landowners in Yeb do not disprove our remark which, far from being to the effect that in the forgers' mind the inhabitants and proprietors at Yeb were all Jews, does not go beyond pointing out that all persons mentioned in the papyri as Jews have been deseribed as being settlers in that stronghold. The forgers are too astute not to pereeive the danger of the suspicion which might arise from a suggestion
that the whole of Yeb was in the exclusive possession of the Jcws, and they are too well acquainted with the national vicissitudes of the latter to overlook the easy process of transferring to the fifth century before Christ the social circumstances of the Middle Ages, when Jewish communities used to take up their abodes in districts placed under the immediate guardianship of the public force and, on that account, promising prompt action every time that the need of protection would make itself felt.
Quite in keeping with the trick was the reference in line 6 of papyrus $J$ to a temple or altar of Jehovah (אגורא זי יחן אלהאה) in Elephantine, which was intended not only to increase the importance of this particular deed, but to pave the way for the introduction to the public of the most famous among this lot of falschoods. We mean the Sachau papyrus which on its appearance last autumn left no organ of the Press innocent of foolish admiration, the most prominent momber in the choir being „Le Temps" with the article Jehovah en Egypte (October 29th 1907) from the pen of Clermont-Ganneau who

> sublimi ferit sidera cervice,
because this time the document brought to light had been made to contain not one or two but all available words of the Turin papyrus in perfect accord with his interpretation of 1878 . What stronger cvidence could be cxpected in support of his hithertofore questioned view? אל מראן בנוהי פחת ידוד עבדיך ידניה וכנותה בוּ בוּ כהניא זי ביב בירחא of the papyrus picked up in


1906 could not be a different thing from , and - which is more edify. ing still - the words reappear here once again in exactly the same meaning he ascribed to them at the final stage of his labourious excogitations. The theory is borne out by a dated and official document, and the time for controversies on the subject is over.

Many a reader will certainly object that the Sachau papyrus is not a purchase, but the fruit of excavations carried out by a pupil of the German school in Egypt and, therefore, stands above all doubts or scepticism about its authenticity. To which we will reply that we have been among the first to read Dr. Rubensohn's report, but not without a careful consideration of all circumstances described in it. We have observed that he dug up this and some other papyri in a place which the diggers had pointed out to him as being the one where the Sayce, Lady William Cecil, and Robert Mond papyri had been found, this being the first time that the Fellahs doing away with their circumlocutions and contradictions of the past showed a precise spot for their alleged discoveries of 1901 and 1904. We have compared the Sachau papyrus reproduced in our plate XI which is supposed to have been left for upwards of twenty-three centuries in direct touch with rubbish (im Schutt) with the Cairo papyri which were taken out from a wooden box, and we cannot possibly account for the striking fact that the former notwithstanding its exposure is in so good a state of preser-
vation, whereas the latter in spite of the efficient protection they have always enjoyed are so roughly damaged and in many important places hopelessly mutilated. We have found it strange that such a long period as the one stated above should have laid scarcely twenty inches of dust over the treasure which it was Rubensohn's chance to discover. Wc have learnt through his interesting report that the remains of the building among which he found these papyri did not afford him the means of discerning any characteristics of the Aramaic house he expected to find, owing to the chaotic condition of the ruins all over the place, which state of things, he adds, was not the result of decay caused by time, but ascribable to diggers' interference whose traces were quite visible, and so fresh as to make one believe that it had occurred but a very short time before he set to work for his exploration. We have also seen that the two most important papyri of the lot were found ontside the chamber investigated by Rubensohn and to the west of it; but after this enormous heap of observations, instead of agreeing with him that they had been left behind through an oversight or neglect of the sebahseekers, we have asked ourselves, as certainly all our readers will do, whether the Fellahs might not be guilty of having thrown thither the documents on purpose and in compliance with instructions they might have received from some employer of theirs.

One will tell us now that, if the Sachau papyri were a forgery, the concocters would have preferred
to put them on the market and thus pocket their price, instead of hiding them in the earth and by a friendly suggestion letting an archaeologist enjoy the honour of an inexpensive success. This remark, however, would carry no weight if one would take the trouble of considering that, as Prof. Sayce stated in his introduction, immediately after the purchase of the Bodleian papyrus every effort was made by archaeologists to find more Aramaic documents on the same spot, and that the utter failure in this direction of the scientific re. presentatives of three great nations, England, France, and Germany could not but make the impostors alive to the expediency, nay, the necessity of volunteering a sacrifice in order to beguile the vigilance of scholars.
All business-like people understand the utility of wilful losses, and the manufacturers of our documents did not certainly feel disappointed on seeing that this wise contrivance of theirs was followed upon by the outburst of the sanguine hopes to which Clermont-Ganneau gave vent in the aforesaid article of the "Temps". He had long before that date expressed the wish that the sands of Egypt might give out some text of the Old Testament offering all those *guarantees of authenticity which he had so brilliantly proved to be missing in the concocted fragments offered for sale in 1883, and the contents of the Sachau papyrus kindled his desire to fever heat. In his honest ambition of preventing Rubensohn from making such a remarkable discovery with no co-operation or contest, he hastened to go to Egypt in order to start himself a campaign of exploration, although so
far as our means of information go, he has not seen yet the accomplishment of his dream by which "so many problems now hotly debated in the field of Biblical criticism would find a conclusive solution, bringing us nearer to the truth about the rise and growth of Holy Writ". But it is more than probable that what mother Earth has refused, and shall always refuse as a reward to explorers it may be the care of the manufacturers to whom we are indebted for the present disorder in the field of Semitie scholarship to supply for money from their works. We have already seen somewhere stated that the Berlin lot of papyri includes some Jewish-Aranaic literature of the liturgical kind the publication of which is said to be in course of preparation, and, if the statement be confirmed; it will cause no surprise to us who in our observation of the forgers' generalship have admired the success of their tactics based on the safe principle of advancing by slow steps. But when the moment of the apparition of the Pentateuch comes, be it brought out by the Fellahs far away from the watching eye of the scientific scarcher or under circumstances similar to those described by Rubensohn, it is an earnest expectation of ours that Clermont-Ganneau will be blessed again with that clarity of vision which oftentimes marked his work in connection with Semitic antiquities.

Prof. Nöldekc remarks in „Zeitschrift für Assyriologie" of January 1908 that, the petition having becn sent to Palestine, the Sachau papyri must necessarily be copies, but, as the script of the latter is
similar to that of the Sayce-Cowley deeds which are of about the same date, reasonablc ground is offered for the belicf that Nöldeke means transcripts made in the usual way for the needs of the office before the originals were despatched, and not copies derived from other copies which in their turn would be separated from the originals by a great interval of years or generations. But if so, shame to the men in charge of the official correspondence of the Elephantine Jews for keeping in the service of the comnunity clerks who were so ignorant or so careless as to make copics which not only are disgraced by omissions and dittographies, but teem with obscurities that will for evermore bafflc the searchlight of the most persevering investigator. For, we feel sure that no text of indisputablc authenticity will be found to shed true light upon the difficulties offered by the Sachau papyri or to confirm any of the numerons conjectures proposed for their elucidation, and they will always puzzle the students unless, as it has unfortunately been done up to the present, a new wrong be taken as surety for an old one, and we content ourselves with such help as might be procured from fresh monuments of the same value and charaeter as those forming the subject of this discussion.
What for want of an appropriate term we must call palaeographical identity of the Sachau papyri with those published by Sayce and Cowley dispenses us with the duty of seeking furthcr cvidence in order to establish their spurious nature, and the conclusion arrived at in our chronological argument about the
latter applies by analogy to the former. We will not, however, kcep from our readers a few remarks we have made and which will help in tracing the method of work followed by the impostors when they forged the papyri of the Sachau lot that follow:

## Sachaús Papyrus II.

 2


 6





11 עבדו ומן יוטי מלבי מצרין אבחין בנו אגורא זה ביב 1212

13 עביר אנחנה עם נשין ובנין שקקן לבשן הוין צי מו

 1015 לן אגרה על זנה שלחן שלחה על מראן [אחת] על יהוחתן
 18 שנת ר ///1 דריוחש מלבא ועד זנה יומא אנחנה שקק
 20 טנחה לבונה ועלוה לא עבדו באנורא זך בע בע
 22 שבקן לן למבניה חוי בעלי טבתך ורחמיך זי תנה

23 על אגודא וי יחו אלהא למבניה ביב בירהא לקבל

 26 שמיא מן גבר זי יקרב לה עלוה ודבחן דמי בסף בנבחן אלחף על
 27 28 בלא זי עביד לן ארשם לא ידע בxx למדחשון שנת רו"/

## Sachac's Papyrus i ${ }^{1}$ ).

 22 מראן אלה שמיא ישאל שגיא בכל עדן ולדחמן ישימנךך קרם דריוהוש מלבא 3 ובעי ביתN יתיר טן זי כען חר אלף וחין אריכן ינתן לק וחדה ושריר הוי
בִבִל עדן

4 בען עבדך ידניה וכנותה בן אמרן בירח תמון שנת ד/ו ו דדיוהוש מלבא

## כזי אדשם

אלהא
5 נפק ואזל

> פִרתרךּ הגה
 7 לחיא אגרת שלח על נפין ברה צי רבחיל הוה בםון בירהא לאממר
אגורא ו ביב

8 בירתא ינרשו אחר נפין דבר מצריא עם חילא אחרן אתו לבירח יב

> עם תליחם

9 עלו באגודא ז7 נדשוהי ער ארעא ועמודיא זי אבנא זי הוּ חמה חברו אחף
הוה תדען

1) A comparison with our plate would show that the occasional points have not been reproduced faithfully in the transcription which we have borrowed from the German edition. - But what is their meaning and function in a manuscript supposed to be of the fifth century B. C.? Has any theory been built up yet on this extraordinary phenomenon?

10 צי אבן // / בנין פסילה וף אבן צי חוו באגודא קך גדשו ורשיהם קימו יִציריהם
11
זי חמה

 וכזי בנבוזי על למצרין


> וך לא חבל

15 ובזי כזנה עבדו אנחנח עם עשין ובנין שקקן לבשן הוין וצימין ומצלין
ליחו מרא שמיא

אבדו ובל פברין


> זָא באישתאֵ



ר///1 רריהוש טמלכא

20 ועד זעה יומא אנחנה שקקן לבשן וצימין נשיא צילן בארמלה עבידין משוח
לֹ

עלבו][חה ועלוח

22 לא עבדו באבורא וך בען עבדיך ידגיה וכנוחה צידוריא בל בעלי יב כן

23 חן על פדאן טב אחמעשת על אבודא זך למבנח בזי לא שבקן לן לטבניה
חוזי בעלו

24 טבתך ורחמיךך זי חנה במצדין אנדה מנך ישתלח עליהום על אגודאֵ
ידו אלה s
25 למבגיהו ביב בירהא לקבל זי בנח חוה קדמין ומחתה ולבונחא ועלוהא
יקרכן
26 על מדבחא וֹ והו אלהא בשמך ונצלה עליך בבל ערן אנחנה ומשין
ובניץ ויהודיאה
27 בל זי תנה חן בן עבדו ער צי אנורא זך יחבנה וצדקה יחהה לך קרם
יהו אלה
28 שמיא מן נבר זי יקרב לה עלוה ודבחן דמן בדמי בסף בנבדין זלף ועל והב על ונה
 N סנאבלט טח שמרין
 [משלבאی

We have put II before I, because in this inverted order we consider them two suecessive proofs of one and the same concoction which derived inspiration from the welcome accorded first to the Euting papyrus and next to papyrus $J$ of the Sayce and Cowley volume. The success obtained by the former suggested to the forgers the convenience of including in their newest manufacture a reference to the fanciful event placed in Darius's fourteenth year of reign, and in the composition of the first draft (II) of the document they thought for a moment of doing something more by copying כםף ונכםין from the fourth line of Euting's, but they left these words out when the definite text (I) was resolved upon.

The proper name וידזנג which Euting proposed for the same line, but so half-heartedly that he substitutes for it dots in his Latin translation was supported in Recueil d'Archéologie Orientale, VI, 236-7 by ClermontGanneau who allowed a free option between a dozen Persian names with which it could be identified. The forgers availed themselves of this generous offer, picked out lוידרנג, and put it in clear characters in H and $J$ which, as seen above, were sold after ClermontGanneau's lectures on the Euting doeument. Once granted the freedom of the city, וידרנג did not delay the exercise of its superior rights, sought for a seat in Sachau's II and I, and obtained it without contest.
The same be said about פרחתד which Euting thought to denote „edit, decree", but Clermont-Ganneau contended to be a title wherewith Vidrang was provided. The second interpretation having, as was to be expected, found favour with our masters, the forgers, they put it with that meaning in Sayce-Cowley H 4 whose date of appearance on the market is known to us, and again in II 4 and I5, of the Sachau lot. The latter very distinctly says in one of his notes that פרתרך, as emendated by Andreas, is to be found only in these four papyri among all Aramaic texts of all ages and lands, so that if our remark has any originality it lies in the fact that it traces the pedigree of the word.
אלהּא which clashes with the post-biblical אלה שמיא花 causes no surprise; it was simply copied from Ezra. The abserse in these papyri of an indispensable 9 (r) or IT
is accounted for by the leniency shown on the appearance in the Cairo inscription of the group שנת שבע ארחחשם מלכא which had passed nearly unnoticed and now has repeated itself in the form שנת רחו/ג דריוהוש מלכא of Sachau II 3 and I 4, 19. We have called leniency the apathetic attitude of the scholars in face of the first example of this syntactical monster, but our thought will find its full expression when we say that they are responsible for having allowed a real mistake due to the forgers' poor learning to become the fashion in their further productions.

We shall give ${ }^{\text {n }}$ no more time to a discussion from the vocabulary and grammar stand-points of the hideous texture of these documents which pretend to be direct and contemporary copies from originals; nor to the exposure of the absurd presence of such Hebrew words or Hebrew-like expressions as לבונה ,לקחו, and others in a paper of the time when the Jews in writing Aramaean used to take a scrupulous care to keep their texts pure from any influence or admixture of their own language. The Aranaic chapters of Daniel, Ezra, and Nehemiah notwithstanding the corruptions they may have gone through before being fixed in the Massoretie text are excellent models of the prevailing style, and everyone will admit that all writings of the same period ought to be up to that standard.

We feel quite positive that, had not their minds been prepossessed, men of sueh intellectual and scientific power as Nöldeke's, Euting's, Sachau's and Cler-
mont-Ganneau's would have detected the trick of this interspersing among an Aramaic text of broken members of Hebrew scntcnces, and traced its motive to an attempt of imitating an outstanding feature in the composition of the Gemara and the Zohar in which books, howcver, there lies ample rcason for an encroachment of this kind in the fact that all Hebrew clauses are either Biblical quotations or passages taken from the Mishnah, the Baraithoth, and such Midrashim as were written in the national language of the Jews. Free from prepossession, they would have noticed that in the Gemara and the Zohar our taste is satisfied and delighted at the nice and altogether natural setting of the Hebrew in the middle of the heterogeneous mass, whereas nothing more horrid could be imagined than the wanton raid of the uncouth Hebrew into the wild Aramaic orchard of the Bcrlin papyri.
Preposession is also responsible for the only transient attention given to the all important passage of Sachau I 16-17, that stumbling-block at which all critical minds ought to have stopped, and pondercd seriously beforc they decided to proceed any farther. These two lines, freed from the obscurity in which they were purposely wrapped by the insertion of the clause חבפקן ,בבלא מן רנלודי, signify, as all scholars are agreed upon, that the promoters of, and participants in the anti-Jewish riots got their deserts, lost all the booty they had plundered, and were killed. The word pheprop points to death brought about by human hands, whieh implies the intervention of some paramount authority in defence of the persecuted and a punishment in-
flicted on their foes. But how the redress of the wrong did not extcnd to a permission for the rebuilding of the temple the destruction of which had for a long succession of years causcd men, women, and children to put on sackcloth, leave their hair undressed, never drink wine, often fast, and always melt in groaning prayers instead of enjoying the spiritual delight of offering up to Almighty God their holocausts and frankincense - how those in power, after indulging for their gratification in bloodshed without remorse, did not grant to the Jcws the easy and harmless satisfaction of letting them replace in their original array a few dozen stones of a demolished edifice is a puzzle that should be explained away by those who might still care to maintain the authenticity of these papyri.

On the forgers' side we will observe that in wilfully making this confusion they continued the above indicated process of imitation, this time taking as a model the Bible whose conflicting propositions have for the last sixty years engaged the thought of scholars and given rise to the school of high criticism. But here also as in the concoction of their ridiculous idioms and style they speculated on the exccss of condcscendence meted out to them on previous occasions, although failing to consider that what is quite natural in books which are the outcome of texts of different authors and periods graftcd the one upon the other would sooner or later be found to be an absolute impossibility in a document which is said to have come direct from the office of a comaunity
and to describe the actual position of the latter at the moment of its being drafted.

In the first part of our examination we have shown the alarming absence of accord in the double dates of the documents. The script disagreeing with all rules and faets of palaeographic evolution, the confused chronology in the events of the Jewish as well as of the Egyptian history, the wording which stultifies every principle of correctness, lucidity, and style - all these serious defects which pervade the whole lot of the papyri acquired or otherwise procured during the last decade in Upper Egypt are strong evidence confirming, if need be, the judgment we have given about their character and provenance.

The factory of this spurious literature, which seems to have been established early in the nineteenth century, must be under the direction of some person or persons who do possess a certain amount of Semitic learning, but who thus far have taken no pains to free their products from all flaws which might betray their impure origin.

## PAST CRITICISMS.

Hampstead, July 1908.

This book has not been written in order to serve or attack any clique, nor for the purpose of promoting the material and social interests of its author who understands perfectly well that, by opposing the unanimous view of the highest authorities who have dealt with the subject, he cannot gain the favour of those who wield the power in the field of scholarship and are in charge of its destinies.

But he has decided to publish lis independent examination with the sole object of rescuing science from the frightful errors in which it has been allowed to disport itself during the last few decades and of saving it from the further dangers by which it is menaced.

In the pursuit of this crusade he is not making now his start. While a lively discussion about the meaning of a few words in the preface to Berakhya's fables was on between Mr. J. Jacobs who maintained that the fabulist was a resident in this country when the massacres of the Jews in 1189-90 took place and Prof. 11. Gollance who denied it but would express no opinion about the meaniug of the words on which his oppon-
ent's argument rested was on, the author of this book showed in the "Athenaeum" of December $20^{\text {th }} 1902$ that not the remotest allusion to that or any other historical event is made in the passage at issue, and that באיי דים, which had been taken to signify the British Isles, was used by Berakhya jointly with other words which all together denote the whole of our globe wherover the wheel of Fortune by the unfair dispensation of her gifts has wrought the moral havock forming the real and only subjeet of the complaint of the writer in the couplets

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אהשר מעיני שכלי נעלם
    אלה המית ואלה חוּחהם ע
לפרוץ פרץ על על פני פרץ
        הישרים ער תומם 
    מחהחק בתחבולותוי
    ועל הרשעים ויושיעם.
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    המתגלגל באיי חים 
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    המתגלגל באיי חים 
    ו\פשוט במרחבי ארץ
ו\פשוט במרחבי ארץ
ובגלגל עגלחו חמם
ובגלגל עגלחו חמם
\Nוםן מרכבוהיו
\Nוםן מרכבוהיו
על הוטובים ויכניעם

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    על הוטובים ויכניעם
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The geographical allusion having thus been disproved, the rcinark was made that גלגל was never used in the Middle Ages to express the planet on which we live, and that the notion of the earth was not included in the astronomical knowledge of the twelfth century. Thcrefore, the view that באיי דים in the above text means the islands which as an appendix to the earth follow her in her rotation is groundless.
The article of the "Athenæum" concluded with the following paragraphs:
„Towards the end of the angry introduction a distinet statement of the author makes one expect to read original eompositions of his, which should be a sort of
satires branding the insolence prevailing in his day; but the gentle tone of the fablcs and their contents do not answer this expectation. Must we believe that this piece was originally writtcn for another collection of apologucs and then wrongly placed by later copyists to serve as an introduction to the fables? This is a point worth the consideration of students."
„Moreover, a number of the fables are supplied with two paragraphs of moral, and the second, which is metrical, differs considerably in style from the rest of the composition. Is there anything like a duality in the authorship of the book as we know it now?"

In November 1903 and January 1904, on the publication in the „Jewish Quarterly Revicw" XVI, pp. 73-97 of an article by the Rev. G. Margoliouth describing the Add. 19,944-5 manuscript of the British Museum, the author of this book pointed out in the „Corriere Israclitico" of Trieste the misreading הדר בעיר מושחק פח בעיר פירנצי and, after due inspection of the original, showed that the first three words in the group are הדר כאיש מושחק, the whole phrase signifying that the owner's financial difficulties made him feel as though he had become the laugling-stock of the folk of Florence where he, who was a native of Montalcino (הר) (אלצינו), resided as a stranger, and compelled him (מפני חצורך ...מברתי) to part with that precious heirloom and obtain some money by its sale. Eighteen months afterwards, part II of thic Catalogue of Hebrew and Samaritan Manuscripts in the British Museum came out repeating on p . 228 the above mentioncd misread-
ing by which the quaint indication is furnished that within the town of Florence there was another town bearing the only dreamed-over name of מושחק.
In the same article attention was called to the lack of propriety in the name „Rabbinic-square" which is gencrally given to a form of script where the straight line is conspicuous by its total absence, and the introduction was proposed of the terms capital, uncial and small in Hebrew palaeography as they are in use for the Greek and Latin. A facsimile of a representative page from a Farisol manuscript illustrated this view, and the ctymology from uncus (hook) was suggested for the word uncialis which has its precise correspondent in the late Hebrew אותיות מלופמות. The hooked ends of all letters in the script called uncial was referred to as being the feature in the Greek papyri of all public and privatc collections, while in an essay by Dr. Harkavy published in the Transactions of the Petersburg Academia Scientiarum, 1884, the opportunity is afforded of seeing the whole Hebrew alphabet composed of letters offering that characteristic.

The same Review in April 1904 published a Hebrew letter from the Cairo Genizah illustrated by Mr. A. Cowley of the Bodleian Library who accompanied it with a fairly good English translation. The writer of the letter was a Joseph Cohen who, being through immigration a resident of Samaria called himself השמרוני, but was nothing more than a poor carpenter (חרשׁ, hharash) knowing the art of making boxes, bedsteads, doors and the ceilings of houses, as it is distinctly
stated both in the original letter and in Cowley's rendering of it. But the latter, forgetting himself, fancied he had to do with a deputy High Priest of the Samaritans of Cairo who, being in need, would have appealed for help to the orthodox Jews of that town, which „fact," Cowley said, shows the perfect harmony prevailing at the time in the relations of the Jews with the schismatics; and as the letter bore no date, Cowley wasted two pages of the "Jewish Quarterly Review" making an effort to establish the period of history in which this Joseph Cohen - the חרש - held the exalted office. The want of correctness in the wording of the document which is obviously due to the craftsman's low cducation was said by Cowley to be the usual defect of all Hebrew texts of Samaritan authorship.
In the „Corriere Israelitieo" of June 1904 the author of this book pointed out the delusion, giving expression in the following terms to his grief and fears about the future: „On foundations of sand a point of science is laid down which, however, cannot be driven away from men's minds by a mere blast of the wind. Fortune has shown mercy upon us in so far as Cowley's inferences do not affect a first class problem of lore; but it may be of some use to recommend to him more carc and ponderation, because he is still young and could take up works of greater importance." At the time when these lines were written the bulk of the papyri dealt with in this volume made its appearance in Egypt, following the one which had already been treasured up at Oxford.

In the summer of the same year, after many lectures and articles had been spent on an attempt to illustrate the bronze jar ${ }^{1}$ ) of the Ashmolean Museum which is known as Bodleian Bowl, the author of this book sent to two diffcrent periodicals a contribution where for the inscription

$$
\begin{aligned}
& \text { זה נדר יוסף בן הק'ר' יחיאל } \\
& \text { וצ"קל המשיב ושואל } \\
& \text { לקהיל כהואל } \\
& \text { בדי לחות פני אריאל } \\
& \text { ככ"ה בדת יקותיאל } \\
& \text { וצדקה תציל מiמות] }
\end{aligned}
$$

the plain and natural interpretation was proposed according to which the jar used on some day of the week, probably every Friday, to be filled with food and placed before the residence of Joseph son of Jchiel for the benefit of the poor whose thankful prayers were decmed necessary to invoke the Almighty's increy upon Joseph then being ill and anxious to escape dcath, recover his health, and tlus be enabled to go and see God in the local synayogue of his residential town. Of the above lines the $1^{\text {st }}$ (נדר), $4^{\text {th }}, 5^{\text {th }}$ and $6^{\text {th }}$ convey this meaning to everyone who will remember that in the mediaeval literature of the Jews denotes "God" (Levi's Neuhebr. und Chald. Wörterbuch), and is not always a topographical term as in Isaiah XXIX, 1 ; while lines 2 and 3 indicate that Joseph's deceased father had been a Rabbi famous for lis Responsa תשובות) alluded to by משיב (משו

[^25]questions (שואל, שאלות), and exercised his functions in the Jewish community of the Polish town Kowel, or Kahwell in its ancient spelling ${ }^{1}$ ). The rhymed prose of the inscription was pointed out, whereby the far-fctched rendering "as he desired or thought fit" proposed by

[^26]Mr. Israel Abrahams for was shown to be faulty, the correct Hebrew equivalent of Mr. I. A.'s words being באשׁר דואיל, whereas a combination Kehoël - as he seems to conjecture and should be required by the rhyme - would be contrary to the rules of grammar and the spirit of the language. Of the article summed up here note was taken in time, and, although never published, it had the effect of stopping the noise which for so long had been abroad about the presumed extraordinarily historical significance of this jar.

Verbal coinmunication was the means of damping down the enthusiasm of those who were magnifying the artistic value of the Serajevo Haggadah which had the enviable fortune of being edited at great cost in the year 1898. A referencc to many a volume of the Jewish Encyclopedia reproducing pages from that manuscript will show the absolute want of relatiouship between beauty and those drawings.

Late in October 1904 the Athens periodical ,'O Nov $\mu \bar{\alpha}{ }^{s}$ "
 few paragraphs of which the author of the present work cast a flat denial at the generally admitted theory that, after their subjection to the Babylonian rule, the Jews gave up the use of their national language and made the Aramaic their own. His argument was based on the extremely short duration of the exile which, besides, was the lot of only a small part of the nation, but especially on the all evident fact of the further evolution of the Hebrew language and the growth in
it of forms of inflexion and syntax which would be absolutely impossible had the language ceased to be aetually spoken. These fresh ereations whieh bear the stamp of a natural development have been preserved in the Hebrew parts of the Jews' post-biblical literature; whilc the Aramaic of the paraphrases, the Gemara and some Midrashim are the fruit of a long protraeted fashion among the cultured Jews to speak and write in the impressive and laconic language which was the favourite of the timc preciscly as in the refined cireles of Rome Greek was preferred to Latin and considered a better instrument for the expression of one's thought. The number is extremely small of Jewish prayers written in the Aramaic language which, after the close of the Talmud, became out of date and was so little understood in the elcventh century of the Christian era that Rashi's notes - mostly translations - in the Hebrew language were needed for the comprehension of the Gemara. The Zohar was a return to the old fashion, but its study being restricted to a narrow circle of initiated ouly corroborates the observation made by the author of this book.

Early in 1905 the latter, who never before had undertaken to check the authenticity of ancient monuments, expressed scrious doubts about the eharaeter of the inscription

$$
\begin{aligned}
& \text { O } \Sigma \text { TATSNTOYNEIKA } \\
& \text { NOPO } A \text { AE ANAPE } \Sigma \\
& \text { 11OIH } \Sigma A N T O \Sigma T A \Sigma \Theta Y P A \Sigma \\
& \text { נקנר אלך }
\end{aligned}
$$

which is engraved on one end of an ossuary unearthed in Mr. (now Sir) John Gray Hill's field property at Jerusalem. He observed that $\boldsymbol{\tau} \hat{v}$ Netzóvo@os $\alpha \lambda_{\varepsilon} \xi \alpha \boldsymbol{\nu}$ $\delta \varrho \varepsilon ́ \omega s$ could be accounted for only if taken as a student's exereise subject, of coursc, to be corrected into
 $\tau \alpha_{S} \vartheta v \in \alpha_{S}$, seen in the same light, the addition of the article $\boldsymbol{\tau} \boldsymbol{\sigma} \tilde{\boldsymbol{v}}$ cannot be dispensed with. $\Lambda$ s for $O \Sigma T A T \Omega N$, he could not but approve of the only permissible reading $\dot{\delta} \sigma \tau \dot{\alpha} \tau \tilde{\omega} \boldsymbol{\nu}$, although by no means accepting the lyypothesis that $\pi \alpha i \delta \omega \nu$ or oixeiov should be understood after the article; while on the other hand, supposing that it never had been made in earnest, of the suggestion to read ootacìv and take the word as a collective noun signifying "ossuary" he never dreamt of taking any noticc, for the obvious reason that, the stem of $\dot{o} \sigma \tau o \hat{v} \nu$ being $\dot{o} \sigma \tau \varepsilon$, the collective form derived from it would bc $\dot{o} \sigma t \varepsilon \dot{\omega} \nu$ with the $\varepsilon$ remaining unchanged and with no $r$ intruding between root and suffix ${ }^{\mathbf{1}}$ ).

In antieipation of a counter-remark which is often made in controversies of this kind, he touched upon the question of the Greek as written by the Jews of that time, and referring to, besides Philo's and Josephus's, the example of the Judaeo-Hellenistic Moínua Nov $\theta$ ertxò $\boldsymbol{v}$ which up to 1856 was considered to be a genuinc work of the Milesian l'hocylides, he showed that, whencver prejudice did not bind them to a scr-

[^27]vilc ad literam rendering of the Scriptures, the Jews could and used to handle the Greek language with a thorough feeling of its niceties.
These considerations supplemented by something quaint in the script and spclling of the Hebrew words which complete the inscription led him to the conclusion that the latter could not be with absolutc ecrtainty regarded as genuine. His timidity in this first step of archaeological detection made him give to the little tract published on the subject the humble title „Un monument douteux" for which he reccived blame mixed with chaff from the editor of the "Quarterly Statement" of the Palestine Exploration Fund in the number of July 1905 when Mr. R. A. Steward Macalister stepped forward „to settle finally (as his editor asserts) any lingering doubts . . . regarding the authenticity" of the inscription. By that article an account was given of the circumstances of this "discovery" which supplies the greatest imaginable strength to the present writer's doubts and conclusion, notling critically sound was said to explain the grammatical dcfects of the inseription, and it clearly appeared that unfortunately researches on which the opening of new avenues for science depends are not always confided to persons adequately prepared for a task of so great responsibility.

It was stated there that , the inscription passed throngh the hands of several distinguished seholars before he (Nicanor) was identified" ; yet, it would be absurd to believe that any man with a smattering of Greek and some little knowledge of post-biblical Hebrew his-
tory and literature, on seeing the words Neıx'́xvo@os, $\pi o c \eta \sigma \alpha \nu \tau o s$ and $\vartheta \dot{v} \rho \alpha=s$ should not instantly have thought of the miraculous doors with whieh tradition relates that Nicanor erossed the sea from Alexandria to Jaffa, thence proceeding to Jerusalem, where he offered them as a devotional present to Jehovah's temple.

The author of this book was scolded for ,attaching grave importance to the trifing peccadillos" of the omission, as Macalister put it, of the article uov before $\alpha \lambda \varepsilon \xi \alpha v \delta \rho \dot{\epsilon} \omega s$ as well as $\pi o \bullet \eta \sigma \sigma \alpha \gamma \tau o s$, and of the sequence $\boldsymbol{\tau} \bar{\omega} \boldsymbol{\nu}$ vov in line 1 , whereas the latter , is got rid of by my (Mac.'s) reading $\dot{\partial} \sigma \tau \alpha \tau \bar{\omega} v^{\prime \prime}$; all things the decision on which must be left to the learning and taste of others than an antagonist who has impaired his position by crowning with the wrong accent the unlawful pretender he is so obstinate in his fancy to keep fast on a shaky thronc.
Passing to the circumstances of the „discovery", we learn from Mr. Macalister that between the disinterment of the ossuary and the day on which the British Consul's daughter, Miss Diekson, noticed the inseription there elapsed one month; which combined with what Macalister was told by a gentleman who ,"had private information that the inseription was a forgery', will show to all unbiassed readers that the literary analysis of the bilingual inseription made by the anthor of this book was in its results at one with the particulars Mr. Maealister was well-inspired to lay down in the debate, and that it was the latter's ill luck if the difficulties set forth in "Un monument doutenx" did not rise in his own mind before he took the grave resolution of issuing a verdiet.

It would be interesting to know whether on her first visit to Sir John's estate Miss Dickson saw an inventory of the finds, because a number of hypotheses could be made, one of them being that the caretaker might, in the one month's interval, have spent part of his leisure outdoors without taking every precaution in order to prevent the aecess of an intruder who for something else than „a practical joke" might have been tempted to cut in the ossuary the quaiut legend. If an inventory did not exist at the time nothing stands in one's way to believe that a few days' delay in Miss Dickson's second visit might have eaused the ossuary to enter a public or private collection by some other method than the rightful owner's donation by which it becane the property of the British Muscum. The gentleman's communication to Mr. Maealister is a rather weighty indieation that something in the way of a smuggling operation had been planned and an opportunity was being sought to earry it out.

Visitors to the Christian room of the British Museum cannot fail to notice the plain appearance of this ossuary as compared with the exquisitely fine but uninscribed three other ossuaries exhibited on the other side of the west door, and will certainly ask themselves why the heirs of Nicanor or, in their absence, the community of Jerusalem, knowing Nicanor's love of the beautiful, grudged the sacrifice of a few tens of draehmas or shekels whereby the bones of the munificent man who lad added to the temple the admirable ornament of the gates might be put to rest in a more decent receptacle. This question was put in „Un mo-
nument douteux" but, instead of a proper answer, it elicited from Mr. Macalister a notice on the position of the tomb which ,is so situated on the summit of the Mount of Olives that the ceremonies of interment would take place in full view of the famous gates whercby the name of the family had been immortalized. This can scarcely be an accident". That is as likcly as not to be so; but it will certainly remain a puzzle why, when going to the cometry the plutocrats of the day should, by the inevitable contrast of the splendour of the gift with the treatment meted out to the giver, be offered the discouraging spectacle of liuman ingratitude! ${ }^{1}$ )

[^28]The editor of the P. E. F.'s Quarterly considers it unfortunate that the author of the present book did not refer to Dr. H. P. Chayes's Beiträge zur nordsemitischen Onomatologie for (='Aגغ $\bar{\xi} \eta s)$ as a shortened form of אלבםנדרום " 'A $\left.\lambda \hat{\varepsilon} \xi^{\prime} \alpha \nu \delta \rho o s\right)$. But permission should be accorded to observe that this being cominon knowledge to every baby in the Greece of the present day, the person to whom the advice was given nceded it not, whcreas no truly scientific argument could prove that the proper names ' $A \lambda \hat{\varepsilon} \xi \alpha$, , $A \lambda \dot{\varepsilon} \dot{\xi} \eta{ }^{\prime}$ or ' $A \lambda \lambda^{\prime} \xi \alpha \nu \delta \rho o s$ can stand in the place of the national $\dot{\alpha} \lambda_{\varepsilon} \xi_{\alpha} \alpha \delta_{\varrho \varepsilon v} S$ as would be the case in the inscription discussed herc. Mr. Macalister, overlooking the long
אמחו which shows that not eve ryone believed in its trutlfulness. The Mishnah in
 the words ומזכירין wותן לשבה which come next referring to all items detailed in the paragraph. The Gemara on this passage reads
אמרו כשהלך ביקנור להביא דלתוח מאלבסנדריא של מצרים בחזירתו . . from which it appears positively that Nicanor's residence was given as being in Jerusalcm, and that he may simply have been sent from that town to bring the doors ordered by the temple's authorities in Alexandria. After the further development of the legend, Maimonides added in its commentary

> וניקנור היה איש מן החסידים ורלך לאלבסנדריא ועשה
> שם שתי דלתות של נחושת והתקין מלאבתן מאוד
suggesting the idea that Nicanor was a donor, bet still representing him as Palestinian. Only long afterwards canue Gractz's contention that Nicanor was an alabarch of Alexandria, and a statement to this effect was embodied in his history of the Jews which the forger thought of turning to account.
The English translation hushes up the alabarehstip, but speaks of Corinthian iron (!? Ert: in the original); and it will be useful to note that Gratz's theory in "Monatschrift ... des Judenthums" 1881, pp. 202-6, rests on the confusion he made of Nicanor's gate which was internal and not very far from the altar (or, in his own words, "/von dem äussern Vorhof in den Weibervorhof führte") with the large gate in front of the main yard, which
oblique line whieh was eut at all ease after the final $\boldsymbol{\kappa}$, thinks of a discontinuation of work and explains it by supposing ,weariness, hurry, laziness, interrup. tion" and even "apoplexy" which might have overtaken the graver; but anyhow he forgets again to pass a vote of blame for Nicanor's relatives or fellow-religionists who eommitted the job to an unreliable man or, if a calamity oecurred, made no provision to lave the eutting of the legend brought to completion.
An important remark whieh is now made for the first time is about the words נקנר אלכםא which, in striking contrast with the Greck, are separated from eaeh other by a blank space of fully half-an-ineli's width. By sueh excès de zèle the forger furnished the most loyal proof of his humble and whole-hearted obedience to the theory now in vogue and touched upon in pp. 100-1 of the present book. In addition to what is said there let a reference be made to the Jewish eoins which are so near to Nicanor's time, and yet all show the letters of ירושלםקדשה following onc another in a continuous and uninterrupted succession.

[^29]In August of the same year an artiele in the „Vessillo Israelitico" of Casale showed a pineh of gross errors in Mr. Elkan N. Adler's book, Jews in Many Lands, where (pp. 15-16) the magniloquent statement is made that ,the journeyings of the Children of Israel (from Egypt to Palestine through the wilderness) have been mapped out with an accuracy which... is unequalled by any descriptiou . . . of the Gerınan invasion of France which occurred but yesterday".

The author of these pages observed also that an inscription included in pag. 30 of that book could not possibly contain the sentenee רוח ר׳י הניחנו which is grammatically incorrect, could never be written by anybody having a little familiarity with the language, and was wrongly rendered ,the spirit of the Lord brought him to rest"; that if the writer of the inseription had meant "brought him" he should have used (hinnihhathu); but that he positively wrote חניחתו, as every reader of the Hebrew prayer-book should expeet, and meant „may the spirit of the Lord grant him rest". Again that at arcecding מלאמשם at end of the text was erroneously made to signify ,ffamous" instead of „known as" or "nicknamed".
It was furthermore pointed out that on p .145 the top line

## גלה צדקתו ברה כחמה שבעתים

of an iuscription, in which the claritable disposition of a donor is mentioned with praise and the meaning of which is as clear as the sun at noon in Saloniea where it was connposed and eopicd, was dimmed and
spoiled by the misreading ' i - ? - instead of the verb גלה (guitlah) „manifested"; and lastly, that a chief Rabbi of Smyrna whose name is Palagi was unwittingly made Pelago (p. 150 and index), with the result that in his honour to the word Archipelagos (sic) a novel meaning of a jocose character was added bringing it to run in parallel lines with Archbishop.

A day or two later, in an essay published by the "Nou $\mu \tilde{\alpha}{ }^{s}$ " some important and deeply rooted misconceptions were pointed out. The first was about the modern Greek translation of the book of Jonah which is so obstinately said to have been made in Corfu and for the use of her synagogues, the error having been brought to a climax by the assertion in the Jew. Encyclopedia (Bible) that this translation used also to be read publicy in the Italian town of Padua. The author of this book showed that the source of the information had been misunderstood, and that Rabbi Meir Katzenellenbogen of Padua had merely addressed to his colleague, Elia Kapsali, a reproach for the abolition in Candia about 1540 of the old custom of reading in the afternoon service of the Day of Atonement the whole book of Jonah, with the exception of the three first verses, only in Greek (Responsum 78).

Next to this remark the correct reading of the word expressing in Benjamin ben Tudela's itinerary the town of Arta was given. It is לכטחה, the Hebrew transcription of a bilingual compound consisting of the article $l \prime$ and the proper name " $A \chi^{\tau \alpha}$, i e., a shortened form of "A $\rho \alpha \chi^{\theta \alpha}$ (or " $A \rho \alpha \chi \tau \alpha$ according to modern pronuncia-
tion) which in its turn is an alteration of "Apa $\chi \theta o s$ and denotes both the river and the town built on its banks. The writing of לבטח instead of לכטח was only to be expected from copyists who knew neither the town nor the etymology of its name. The variant לאר לבאנטה sessed the minds of the scholars trying to identify the place. Someone must have observed that, after leaving Corfu, Benjamin landed in the part of the globe known as "Levante", and to this name he adapted the Hebrew word. - The proposed restoration of the original spelling would show that during its process of simplification the name " $\Lambda \varrho \alpha \chi \theta \alpha$ passed through the form " $A \chi \tau \alpha$ which, however, was soon superseded by the more harmonious " $A \rho \tau \alpha$. Prof. Jean Psichari, the specialist of the Paris Ecole des Hautes Etudes wrote to the author of this emendation that due note was taken thereof for philological purposes. ${ }^{1}$ )
The third mistake was Prof. Israël Lévi's who, reviewing in the „Revue des Etudes Juives," XXVI, 198-208 a mass of documents copied by H. Noiret in the Venice archives and published by the École Française of Rome, mistook the town of Negropont as being one of Crete. His contribution bears the title „Les juifs de Candie..." where the last word which in reality means only the ancient capital of Crete is wrongly intended to denote

[^30]the whole island. The confusion of the two names went on throughout, and the expression en Crite was used, in spite of the preposition en - ?! - for the town of Candia in the concluding line of the article: ordres.. envoyés ... à Corfou, Modon, Coron, en Crìte, à la Canée, Retlimo at Négrepont. The error about Negropont was not noticed by the writer of the article "Crete" in the Jewish Encyclopedia, who repeated it and like his authority supplied information on this town as bcing part of that island. Negropont is the capital of Euboca and gave her name to the whole of the island, as Candia did in the past to the whole of Crete. The documents deal with the affairs of the lattcr, but often mention Negropont owing to the lively trade which was being carried on between the two big islands forming at the time part of Veniee's dominions over the sea.

The same year, from August to November, the question of independence in scientific research was incidentally debated in the "Corriere Israelitico" between Signor U. Cassuto and the author of these pages who had stated that a tutor, Ezechia Rieti, dedicated in the year 1617 his Italian translation of the Proverbs (Chapters XXV—XXXI) to a distinguishcd lady of Mantua, Sirena Rieti. Cassuto, quoting Mortara's Indice Alfabetico wanted the name to be read Sercna. 1lis opponent observed that Mortara must lave been misled by Zunz who in his Namen der Juden included Serena copying it from the unvocalized text of פחד יצחק, and that Mortara followed suit in spite of the ummistakeable חירק with which the name is provided in the dedication, but certainly
out of respect for the German scholar's great authority. He added that the mythological name of Sirena has its companions in Diana, Musa, Bellona, Grazia and Eufiosina incorporated in Zunz's very essay who, however, was responsible for the error of putting איםטרופולא, (sic) among the names of men. Everyone possessing a little knowledge of modern Greek will see that they are transliterations of $\dot{\eta} \Sigma_{\tau \varepsilon \varrho о \pi о и ̆ \lambda \alpha, ~}^{\eta} \Sigma_{\tau \varrho о \gamma \gamma \dot{\nu}} \alpha, \dot{\eta} \Sigma \tau \alpha \dot{\mu} \mu \omega$,
 ctc. from the original form of 'E $\boldsymbol{E} \boldsymbol{\theta} \eta()$.

Other mistakes of the same kind were also pointed out, and attention was called to the wrong vocalization in the transliteration of Hebrew words which unfortunately prevails at the present day and corresponds to no system whatever of pronunciation, but is caused by neglect of grammar.

In the „Jewish Quarterly Review" of April 1906 Mr. $\Lambda$. Cowley was again responsible for the wrong construction put on a manuscript of the Cairo Genizah, which was a message of condolence and eonsolation sent by the last President of the Sura Academy to the Jews of Fez, who had experienced a cruel persecution with destruction of a synagogue, massacres and misconduct in the most shameful form on the part of their Mohammedan fellow-countrymen, as is distinctly expressed by the words

(1) עמיצן (sic) ועל המורע לבחוריוע

[^31]and by an invocation to God that he might punish those who perpetrated the evil and

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לנחם אותגו ואחכם להםיב לכם ולהחפך לששון אכליכם (sic) ולשמח
                    לבכותיכם (sic) מיגונבם.
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The event could not be referred to in clearer terms, but Cowley said that the whole fragment - which consists of 61 printed lines and is all but a complete document - gives no more than the introductory part of the letter whose object, he ventured to surmise, was an appeal for monetary assistance from the Babylonian Gahonate then being in awful distress and within a few years of its total extinction. On the very day of the „J. Q. R."'s issue the author of these pages pointed out the fallacy in an article which appeared in the "Vessillo Israelitico" of May.
By that time the editio princeps of the papyri examined in the main part of this book was at the binders'.

In March of the same year all London newspapers were flooded with the fascinating news that Prof. Wm. Flinders Petrie had discovered the ruins of Onias's templc in Egypt, but the communication sent to the "Times" made soon the author of these pages perceive that Prof. Petrie had becn the victim of the misrendering by Whiston of a sentence of Joscphus who, in

[^32] ie@ढ̄ $\zeta \omega \omega \nu \mu \varepsilon \sigma \tau \partial \nu$, Antiq. XIII, $3 ; 1$, used, as clearly appears from the context, the word $\dot{v} \lambda \eta$ in the sense of "forest" and not of „material," as the English translator thought when he rendered this passage by „this place is full of materials of several sorts" etc. ${ }^{1}$ )
Petrie found near Tell-el-Jehudieh to the north-east of Cairo a stone-lined ditch one mile in length, and it struck him that that was the spot alluded to by Josephus. All his exploration work in the winter 1905-6 was based on that faulty identification, and when in July the public inspected the exhibition in the London University the only item that might suggest a Jewish association of some kind was an account of builders bearing in the demotic script, besides that of an Egyptian, the name of a Samuel, which everybody will admit is an extremely doubtful evidence that the building operations implied by the ostrakon had been undertaken for the erection of a Jewish temple, or of any temple, since nothing else in the four short lines of the bill gives any shade whatever of support to such

[^33]hypothesis. The other object exhibited as Jewish was the broken part of the smoothly rounded shaft of a column entirely cut from its capital and base which might have revealed its style, while the fact that it had been found lying at the foot of a mound made it impossible to understand its position and service in the unknown building wherefrom it had been rolled down there.
The vessels and other exhibits had no specific connection with a worshipping place, and the restoration which was made of a temple was mere gucss resting on no substantial discoveries, but almost entirely on the data scattered here and there in Josephus's works and not always properly understood. The newspapers said that the "column" was going to be presented as a high class national memento to the Jewish authoritics of London, but the author of the present book, wishing to avert the evil, approached the compiler of the "Jewish Year Book" and in a subsequent meeting dictated to him the remarks which over the signature "Student" appeared verbatim in the „Jewish World" of June $8^{\text {th }} 1906$. Of their own accord the editor and the "Student" withheld from the public the name of the person who passed the criticisms, a stinted redress of the wrong having afterwards been granted in the June $22^{\text {nd }}$ issue of that paper.
Replying (Junc $15^{\text {th }}$ ) to the remarks made, Prof. Petrie declared all attempts to emendate Josephus's text arbitrary, although in Niese's critical edition of that author discrepancies are pointed out as to the name of the town, one manuscript exhibiting in Antiq. XIII, 10; 4 the all important variant 'Iovגovaditn
instead of 'Hльоилодizn; in spite of the corresponding passage in Isaiah XIX, 18 where the name of the temple's place is variously given as עי עי החרם by the Massorah
 dering of St. Jerome, Givitas solis, implies a עיר החרם; and in sharp disagreement with Dr. Naville who, puzzled as everyone must be by the confusion prevailing in the text, expressed in his Mound of the Jew and the City of Onias (p, 20) the view that Josephus may in his account of Onias's colony have mixed up imformation referring to more than one settlement. He called „irrelevancies" some of the objections, and for a full explanation of his articles, lectures and interviews he referred to his forthcoming work Hyksos and Israelite Cities.

When this was out, Petrie's dislike for Josephus in the original dress became the more manifest, and his wandering through misguidance in the wrong track the more regrettable. The stone-lined ditch was no longer mentioned, but its place had been taken by ,the immense stone wall of the Hyksos camp" which supplied the "material" alluded to in Whiston's Antiq. XIII, 3; 1. It is also Whiston who in War VII, 10; 3 states ,that the entire temple was encompassed with a wall of burnt brick" which words, being verbatim transferred into Petrie's p. 21, show that they offered lim their part of help towards the identification of the place. All round the ruins of the building which made the object of his exploration were found, indeed, the remmants of a brick wall, and, if Josephus's statement really were to the above quoted effect, they would certainly afford some ground for the assumption that the
edifice might be Onias's temple. But the Judaean historian wrote rধ́fevos which with the word „temple" has in common only a partial and quite aceidental similarity of sound. Any good dietionary of the Greek language will inform that $\boldsymbol{\tau} \dot{\varepsilon} \mu \boldsymbol{\varepsilon} \boldsymbol{\nu}_{s}$ means a considerable tract of land assigned as a source of income to a person or an institution which may be of a religious as well as of a secular charactcr. A $\tau \in ́ \mu \varepsilon \nu$ os may stretch around a temple, but in such a ease the latter oceupies only a very small part of its area, being, for example, something like the Albert Memorial within the precinets of Kensington Gardens. It follows that what Prof. Petrie found at Tell-el-Jehudieh answers only to Whiston's description but not to that of Josephus who means the whole cstate surrounded by a wall.
He constantly speaks of a mound, but neither Josephus nor any of his translators ever mentioned sueh a strueture; and according to the account given in War VII, $10 ; 3$ the temple itself was in its entirety a tower-like building, all in stone measuring fully sixty cubits from the bottom to the top: và̀v... $\pi \dot{v} \varrho \gamma \varphi$ п $\pi \alpha \varrho \alpha \pi \lambda \dot{\eta} \sigma \iota \sigma$
 by Petrie's recoustruction more than one half of that height should have becn covered by the mound. Josephus's aecount preeludes also the theory of a fortress rising over the temple for its protection, as Petrie has imagined (p. 25).
Another item indicative of Pctrie's greater sympathy for the modern than for the ancient authors is the name of "Onion" that he gives to the place on the illus-
tration of which he spent his time. This form was a creation of Brugseh's who seems to have yielded to a temptation of playing upon the words when he wrote his essay On et Onion; and it was unknown to Josephus for whom that little distriet of Central Egypt was $\dot{\eta}^{\prime}$ Oviov ( $\chi{ }^{\prime} \varrho \varrho \alpha$ ).

In the "Times" and the „Jewish Chronicle" it was stated that the limestone balls found among the ruins had been thrown thither by the balista during the siege which the temple sustained at the time of the Ptolemies, while a burnt mass of wooden structure probably was the final wreck caused by Vespasian „when he destroyed the whole city and the temple"; but, after the remark was passed in the „Jewish World" that aecording to War VII, 10; 4 Paulinus simply shut up the temple with no aet of violence, except a little plundering, in Hyksos and Israelite Cities only the siege is mentioned with the assertion that it took place in 146 B. C. during the war between Cleopatra II. and Plolemy Plyskon. This second version, however, is not free from the very serious puzzle over the balls supposed to have been left ,on all sides and specially about the great stairway" - as Petrie saw them (p. 26 § 33 ) - for as many as two hundred and fifteen years which was the time clapsed from that war to the elosing of the temple in 70 A. D. To admit this one must foree upon one's mind the admission that for some reason out of the reach of human intellect those balls - which were three, and sometimes six, inches across and weighed from two to ten pounds - were never removed from the part of the building that formed its main thoroughfares for the
whole time of its being used as a worshipping place, the war in question having broken out shortly after Onias obtained his permission in 160 B . C. or thereabouts.
With this absurdity is conneeted the statement that Onias „offered" to Ptolemy „to form a corps of Jewish mereenaries" for which there is no evidence whatever in Josephus's works, the vague expression tais $\sigma \alpha i s$
 at any kind of service that the Jews might render to the king of the land. That the High Priest Onias was one of the Commanders-in-Chief of Ptolemy's army is also a rash conelusion of Petrie's based on the former assertion that he did form the corps of mercenaries; but, following the example of Dindorf and Niese who make a cautious diserimination in their indexes, it will be found wiser to consider the Onias of the generalship a distinct person from the Onias of the temple.

Josephus states in Antiq. XIII, $3 ; 2$ that the temple ereeted by Onias was smaller and poorer than the one in Jerusalem; but it must be borne in mind that the Palestinian temple then in existence was the one built at Ezra's time which - if we have to believe Haggai (II 3-9) who prophesied a number of years after its ereetion - was a great deal poorer than that of Solomon, and that no alteration was made in it down to Herod's time. It is consequently evident that Petrie was wrong in comparing the edifiee he fourd to the first Jewish temple of Jerusalem, and that all his endeavours to aseertain the ratio of the former's to the latter's dimensions were out of place. Of the size of Ezra's temple there is no record, but the Talmud has pre-
served about its shape some particulars which ean be seen summed up in the Jewish Encyelopedia XII, pages 89-92. It appears from these details that no considcration of art has oceupied the minds of those who erceted it, the only arehiteetural feature worthy of note -.. for its quaintness rather than on the seore of beauty - being the lintel over the entrance to the vestibule which consisted of five unequal oak beams superimposed over one another and separated by interlying courses of stone with the greatest length of 30 eubits to the top beam. In the iuterior of the vestibule there branehed out overhead, symbolizing the nation of lsrael, a golden vine on which hung the ex-votos of the faithful. In addition to this there seems to be some allusion to a colonnade or veranda in the courts of the temple, and nothing besides.

As against this, plates XXV, XXVI and XXVII of IIyksos and Israelite Cities show among the things unearthed on the site of the alleged temple fragments of a battlement decorated with a design of beautiful lines and with clear vestiges of a rosette, the nieely preserved remnants of a bold eorniec, and above all pieees of eapitals, one of them with the aeanthus-leaf whieh reveals the richest style, the Corinthian, of Greek art. That it is Corinthian is Petric's own statement who draws an inference abont the architecture of the temple; but how then does lre reconcile this positive faet with the no less positive information that Onias's temple was poorer than the above described second temple of Jerusalem? One has the proof of the extreme poverty of Onias's sanetuary in the signifieant eireumstance that
he had to reduce to one single burner the sevenbranched candlestick which made the pride of the Jews in their own country and to which they showed the attachment so impressively reflected in the Titus arch of triumph; why then should the Jcws of Egypt spend such money as could be drained from their meagre purscs on Gentiles' superfluities and choke the expression of their national fccling and idcal over the expanding light of Israel?
In the „Jewish World" an objection was made about the statue of Admiral Hor holding the shrine of the lion-headed goddess Bubastis which crashes with the purging, $\dot{\alpha} \nu \alpha x \alpha \theta \bar{\alpha} \varrho \alpha \ell$, of the site that Onias proposed to do before erecting the temple. Prof. Petrie obscrved that "Onias is nowhere said to have purged the place of its statues and idolatrous associations" - as put down in the objection - adding that ,all that has been read in the text in the place of the simple word 'purged'," by which he seems to understand that Josephus meant the ordinary clearance of encumbrances which is always made before the start of the building opcrations. The mere rejoinder that $\dot{\alpha} \nu \alpha \approx \alpha \theta \tilde{\alpha} \rho \alpha \iota$ in this place is the faithful echo of the phrase טהרו Nhich was so much in vogue during the Maccabean period and denoted the expurgation of Jerusalem's temple from polytheistic contaminations would suffice to settle the dispute about the real meaning of the word. But there is to see more than that in Antiq. XIII, 3; 2 wherc Ptolemy reproaches Onias for planning the construction of Jehovah's sanctuary in a place where other dcitics had received worship; and, be
that letter a genuine document issued from Ptolemy's own palace or an elaboration of the Judaean historian working on the lines of his model, Thucydides, one thing admits of no doubt, that the need of a purification as conceived by Petrie's opponent and justified by a constant practice of the Jews cven on occasions of far lesser importance than this was actually felt, and that such a purification must have been effected. Under the circumstauces, Hor's statue and impious shrine which were so conspicuous by their dimensions could be sold or given away, but nevèr overlooked and forgotten on the spot.

There is only one inference to be drawn from the aforegoing observations, namely, that the work of the British School of Archaeology in Egypt during the winter 1905-06 resulted in a wrong identification, with the corollary that, while from the keeping up of the error anything but benefit would be derived for the knowledge of things Jewish, the neglect of the unearthed material in the direction of enriching some other department of historical science would be a serious loss. Dr. Navillc, regretting the disappearance of a Hebrewinscribed stone found there before his own campaign and which would offer the means to obtain a safe identification of the place, said that Lewis had found in the Ramses III. Chamber at Tell-el-Jehudieh much which was Persian, both ancient and modern ; Mr. Griffith told Prof. Petrie that he was more inclined to consider the handwriting of the ostrakon to be of an earlier date than the second century B. C.; Prof. Petrie himsclf had to make an allowance (p. 20) equal to one third of
the whole in the verification of the distance as stated by Josephus; unmistakeable traces of a Roman camp near Tell-el-Jehudieh were noticed by Dr. Naville and if all this is borne in mind it becomes evident that further research should lead to a different identifieation of the place with no disadvantage to scientific truth.

The same year, in July, the „Corriere Israelitico" published an article pointing out an egregious blunder of Dr. M. Gaster's which had made its appearance first in the April number of „Ost und West", and next in the „Jewish World" of June 22nd. It was about a despatch from the notables of the Jewish community of Amsterdam to Shabbethai Zevi, the misleading tidings of whose final success had reaehed their town and causcd them to fcel ashamed for having up to that moment refrained from joining the movement which, it was thought, had at length resulted in the restoration of the Jewish kingdom, with the further hope of its paramount power being soon acknowledged by the potentates of the Gentiles all over the world. This is beyond disputc or controversy the meaning of the sentences
חן אמת חפצנו בחחלה לעצור במלים ולשום יד על פה ... לא כן אנחגו עושים היום חזה יום עשה ח' וירם קרן משיחו ... ועתה באו נשתחחוה ונברעה לפני אדוננו חמלך וכלנו כאחד גרשום בכהב אמת אשר האמנגו לשמועתגו וקבלנו עלינו באהבה עול מלכות קדוש עליון מלבותיה מלכות עלם וכל שולטניא ליה יפלחון כי כן חובה עלינו להודוה ולברך אה שמך

מלכנו.
In fact, the Jews of Amsterdam had grown so enthusiastic over the presumed triumph of Shabbethai that in
this their message of homage they entreated him to say whether they had to quit forthwith their homes and go to join him, or to wait until the gathering of the whole nation was commanded.
The document is dated Elul 24 th, 5426 , and, although the Pseudo-messiah was already locked up in the castle of Abydos, those living in Holland could not have any cognizanee of the gloomy development owing, as the present writer observed in that article, to communications being at the time searce with Turkey in consequence of that country's war with Venice for the possession of Crete. The message was sent to Isaac Nehar, a Dutch Rabbi then travelling on a propaganda mission in Italy who had to add his own signature and forward it:

## ואתליו אנו תורצים (י הספר חזה כדי שיהיה גם הוא בחותמיוי

but, being near the seat of the events, he heard the news of Zevi's crash with the result that he did not sign the document and withheld it.
But Gaster stated both in the Vienna and the London periodieals that the despatch was an act of adhesion

[^34]on the part of the Amsterdam Jewish authorities to Shabbethai's agitation before anything was heard of the success of the cause and while he was striving to win over supporters in countries stranger to him. This interpretation served Gaster's own aims with regard to to-day's Zionism but revealed an unpardonable haste and levity involving great detriment to the credit of scholarly investigation. The author of this book made the following remark:
„On ne s'étonnera pas, si une fois de plus on a publié une pièce sans lui consacrer au préalable l'élaboration critique à laquelle elle avait droit et sans se soueier guère de la vérité scientifique. Malheureusement l'babitude est trop répandue dans certains milieux de tout adapter à ses idées préconçues, et le desir de puiser, à des sourees entourées d'un grand prestige, des arguments favorables ì sa thèse amène souvent à négliger la véritable portée d'un texte, et à y substituer un sens qui n'a jamais eté dans l'esprit de son auteur. It en résulte qu'au lieu de faire avancer la science, on se fait mainte fois le propagateur de fausses notions et que les bonnes ótudes sont endommagǵcs par ces procédés irréfléchis de personnes qui pourraient faire meilleure besogne. U'histoire et la littérature juives ont à souffir lo plus grand mal de ce mépris de la discipline, ett, si l'on ne prend la résolution de sarrêter sur cette pente périlleuse, le monceau sera bientôt énormément grand des conelusions et des eonnaissances que la sagesse conseille de soumettre à recision" ${ }^{1}$ )

The summer was not over yct, and the Aramaic papyri „discovered" in Assuan were published bringing about a sad realisation of that prophecy.

But, before that big volume of clouds darkened the

[^35]horizon in many lands, it fell to the lot of this book's author to witness a disgraceful scene which took place in the finest town of the finest country, in Florence, where an ,"authority" made a swift inroad into the Jewish archives, copied and took notes from documents readily put at his disposal and thence, with a promptitude which is only the privilege of very intimate fricnds, was welcomed in the „Revue des Études Juives" of April and July to exhibit his treasure.
There were in those thirty pages as many as about a hundred flaws, some of which were pointed out in the "Vessillo Israelitico" of Agust 1906. One of them was the heading Privilèges accordés par les papes Paul $V$ (4 novembre 1753) et Martin $V$ (14 novembre 1753) which clashed both with history saying that St. Peter's throne was occupied from 17th August 1740 to 3rd May 1758 by Benedict XIV., and with commonsense no less than with the ordinary sequence of events which preclude the tenure of that high office by two different persons within an interval (4th to $14^{\text {th }}$ November) not quite sufficient for the issuing and delivery of the circular convening the Conclave for an election.

The searcher bcing an American, leniency to a certain extent might be granted for the great, very great indecd, incivility shown in the treatment of the Italian portions of the documents, but one would hardly believe that any Grammar-sehool in any part of the world would pass for good the Latin of the following:

Fit fides per me not.re infrascripta quatr. in libro Privilegiis existense in Candia reformationis eivitatis florente repetitur et est(?) quodda Privilegiis infrasti tenoris,
or of
Millesimo Stexetheiormo Decimoeexto-Tndictione deoima quarta die vero vigesima sexta menais Martin Pontificatus ete.
to which hideous liberties he had been encouraged by similar favour previously extended to some other Latin texts speedily copied by him in the Archivos de Aragon, at Barcelona, and sent from New York on February $14^{\text {th }}$ 1894 to the "Jewish Quarterly Review", there to appear with no delay in the July number, but whether to enhance the reliability of that periodical or otherwise it will be the reader's concern to judge.

## FURTHER REMARKS ON THE PAPYRI.

The demonstration contained in this book consists of two parts, neither of which needing the support of the other, because cach is complete in itself. The one which appears as second was the first in the course of the investigation made by the author, and would have been published alonc had he not noticed the hesitation, nay, the fear with which his verbal remarks were received by those who would not commit themselves to an opinion so deeply disagreeing with that of persons whose word counts. The very discussion of the matter was considered a crime of lèse autorité, and every wise man deemed it convenient to keep away from trouble.

For thesc and for all those whom a similar dispo. sition of mind or other fecling causes to refuse surrender to the incontrovertible proofs derived from palacography, history, grammar, and lexicon the other part of the demonstration was thought out by which the qucstion is placed on the safe ground of arithmetic and facts are shown which in the ordinary course of events could not fail to be universally recognized and proclaimed. But too many people have chanted
hosanna at the appearance of those disgraceful manufactures, too many have expected them to throw streams of light on the history not so much of the Jews as a nation as of the evolution of their religious thought and literature, and the fact that an attempt at resistance to truth is still being made must cause no surprise.

From the Euting papyrus which entered the Strassburg Library in 1900 down to the very last published by Prof. Sachau in 1907 all have been judged upon the standard of the Blacassiani; and if not the slightest objection was made as to their referring to, or being dated after various kings of the Achemenides dynasty, it was so because in the year 1878 the "Revue Arche ologique" set forth the theory that the Blacassiani were of that period, a theory which although passed over on its appearance by the very man to whom the public epistle propounding it was inscribed, Ernest Renan, gradually gained ground until the Marquis de Vogite by its adoption caused it to be raised to the dignity of indisputable doctrine. But it is only natural and reasonable that, if the proof were furnished that the Blacassiani papyri have been misunderstood, any doctrine based on their faulty interpretation should fall to the ground, and that only one way should remain to deal with it: complete abandomment and total oblivion. That proof has been given, and the footnote to page 91 of this book shows that וגרמיך לא יחהון שאול of CVI, в obverse can hardly be taken as the expression of a wish, while a great offence to grammar was committed when to the words the mean-
ing of [puisse la suzeraineté s'tetendre] "sur mille rois" was ascribed by the propounder of that theory; and a5, after the explosion of these imaginary compliments, nothing is left in those papyri able to bear out the contention that they are fragments of a report addressed to a king of Persia, all ground is taken from that theory, and there is no getting away from the conclusion that all links of the Strassburg, Oxford, Cairo and Berlin papyri with the Blacassiani are fictitious and worthless, their origin to be sought in the set purpose of the manufacturers to imitate a model that looked rich in promise.
How the mistake was not pointed out in 1878 is a great wonder and much to be regretted, too, because its immediate discovery would have shut up to the forgers a new mine of fraud, and saved the scholars from a good deal of. illusion, fruitless - if not harmful work, and hopeless disappointment. For, disappointment is inevitable and shall become general, notwithstanding all efforts that might be made for the defence of the Assuan merchandise and of the honest, although reckless and hurried, literature which has flowed from that phantom source.
In a private conversation the author of this book heard that a Biblical example, איק המנן of Song of Songs 4.4 where the numeral expressing a plurality of beings, nay, a thousand, governs a noun in the singular could justify the rendering made in 1878 of מלבא by "sur mille rois". To parry this stroke which might be tried by more than one student, a full survey of all Biblical passages containing $\mathrm{S}_{\mathrm{F}}$ in all its
forms and combinations with their equivalents in the Aramaic versions was considered the best move；and such a survey was actually carried out，the table on the opposite page which contains all typical instances found in the texts being the net result of it．Furth＇s Concor－ dance to the Hebrew Bible and Walton＇s Polyglott Bible of 1657 arc the storehouses on which the matcrial has been drawn．It will be noticed that the equivalent of－אישׁ－reeeives a special treat－ ment and is always in the singular ${ }^{1}$ ），whereas in all other combinations the Aramaic keeps independently to its own law，and puts invariably the noun in the plural．The apparent deviations from the rule in 1 Sam ． 25.2 and Job $1.3 ; 42.12$ are due to the circumstance that ju to which the numerals refer is a collective noun and has no plural form．The Aramaic for the passage cited by the opponent could not be included in the table because in the paraphrase the literality of the original is totally eclipsed by the full play of allegory．

It will be scen that out of the twenty－cight typical instances exhibited in this table only one，חמשין אלפי of I Sam． 6.19 could be said to offcr some similarity to the על אלפם מלבא of the Blacas papyrus；but onc must also remember the remark made above that the only noun which in the Aramaic language remains singular after אלך or גבר is אלפין（or גברא），and that in all other cascs there is no derogation from the rule which wants the

[^36]| Mos <br> alone | Mebrew <br> אלק בסק <br> אלף אישׁ | Aramatc <br>  <br>  |
| :---: | :---: | :---: |
| preceded by an－ other numeral | שלשים אלך רבב בששׁ טאום אלח רגלי רי שלששים אלח רנלי וארבעים אלף פלח פרשים חמשים אלף צים צים שבעעים אלֹ ארבעה עשר אלק בצוֹ <br>  שטש משות אלף רנלי | I Sam．I3．5 <br> בשית מאה אלפין גברא רגלאח I Sam．4．I0 but וארבעין אלפין פרשין II Sam．10．I8 I Sam．6．I9 חמשין אלפי ובראא I I <br> I Kings 5.29 אגרבטר אלפין דען <br> Jonathan בשית טאה אלפין גובריא Ex．I2． 37 Jonathau שית פאה אלפין גברין רגליין Numb． 11.21 |
| ロッ5＊ | וששׁת אלפים גמלים ושטשת אלפים וחב <br> חמטשח אלפים שקלים נחשת <br> ולו צאן שלשת אלת אלפים ויקח בחמשת אלפים איש ועשיׁת אלפים רנלי וששׁת אלפים פרשים עשה חסר לאלפים | Job 42．I2 ושית אלפין דגמלין II Kings 5．5 ושתא אלפין דינרין דדחב I חמשא אלפין תקלי נחשא I Sam． 17.5 I Sam．25．2 ודבר בחמשא אלפין וברא师Kgs．13．7and 1 Sam．I3．5 Ex．20．6；Dent． 5．10；Jer． 32.18 |


| 9\％ | וששלשת אלפי גמלים שבעת אלפי צאוֹ באלפי אילים （1 מאלפי זחב וֹב בשלשת אלפי איש אלפי שנאן |  <br> Job．I． 3 <br> Micah 6.7 <br> Ps． 119.72 <br> Ex． 32.28 but <br> Ps．68． 18 |
| :---: | :---: | :---: |
| אלפים <br> （alpaim） | אלפים סוסים אלפים בת יביל אלפים איש | תרין אלפחן סוםון II Kings 18.23 I Kings 7.26 תרין אלפין גברא |

[^37]noun to be in the plural. A striking example of the strict operation of this law is offered by ועםרא אלפין גבר רגלין of II Kings 13.7 where, after due compliance with the privileged condition of גבר, the adjeetive which follows agrees not with its noun but with the numcral attached to it. Even more decisive are the instances ושתא אלפין פרששין of I Sam. 13. 5 and (angels =) תרין אלפין דאנגליא of Ps. 68. 18 showing that the exception affecting גברא does not, as it ought to, extend to nouns which eannot be thought of without calling up in a Semitic scholar's mind the idea of man. That the rule had to be observed in the casc of מלך there cannot be any possible doubt, and the example באלפי דכרין of Micah 6. 7 teaches that the phrase of the papyrus ought to be על אלפי מלבין or else - if preference wcre to be given to the emphatic state of Job 1. 3 or the above quoted instance תרין אלפין דאנגליא would show that the papyrus should bear in this place the words על אלפּן דמלביא.

But supposing that all these subtle diseriminations are mere punctilio - which they are not - and that על אלפי מלבא might pass as a regular combination parallel to חמששן אלפי גברא, a serious difficulty cannot fail to force itself upon onc's attention, and that is the number of אלפי which is plural and denotes, just as in the model appealed to for help, more than one thousand. But if the presence of the plural has eluded the vigilance of a student of our day it could certainly not escape the notice of the readcr of the document at the time it was written, i. e., when the
language in which it was couched was a living organism on everybody's mouth; and to assume that the satrap should go so far on the road of exaggeration as to wish to his sovereign an extension of power over an unconceivable plurality of thousands of kings would imply that he had not enough commonsense to see that his flattery was bound to arouse his master's suspicion and render him ridiculous in the eyes of his fellowsubjects, obtuse as they were under the weight of Asiatic despotism.

Fortunately, the paraphrase of a clause in Eeclesiastes 7.28 puts a stop to wasteful wrangle by showing how the supposed Lieutenant of the King of Persia would have been able to pay loyal reverence to his exalted Majesty without thereby erring beyond forbearance on the side of excess. The paraphrase is to the words and runs thus:

## אברהם צדיקא די אשהכח מהימן וובאי בין אלף מלבין

wherefrom, if the three last words were detached, the substitution of על would suffice to make up the right and sole equivalent of "sur mille rois", which would have the advantage of being alike in peace with granmar and consonant with
usus
Quem penes arbitrium est et jus et norma loquendi.
The other meaning of the word has not been forgotten in this survey, and here follow the typical instances of it when used to denote a body of armed men or a civil association:

Hemae

ורשמחו לו שר אלף



## Aramato

I I Sam, 18, 13
谷 Nomb. 1.16; 10.4 Deat. 33.17
 דוד טדביח מגשה
to which examples that drive away any doubt about such employment of the term there are to add On kelos's rendering of אששר לאלפי דצבא, Numb. 31. 48 by which comes so near the interpretation offered for and Jonathan's paraphrase to the same which one nearly feels tempted to regard as a hidden force that has for centuries waited to be called out and settle for good the present controversy. In fact, the second Targum gives in the aforementioned place דממנן על אלפי NיM, than which nothing fitter, from the standpoints both of grammar and purport, could be desired to prove the justuess of the construction put on the fragment's words by the author of this work. In the Bible the battalions are described as belonging to the army; in the Blacas papyrus, with no difference in the essentials, as being in the monarch's possession. In either case the speech is about the chiefs of the men in arms, and to the emphatic form of Numbers nothing could correspond more conveniently than the form מלבץ of the fragment.

With regard to the chronological demonstration the author of this book will relate a few episodes with
the greatest living Egyptologist, a prominent Orientalist, a celebrated art collector, and a newsmonger.

Prof. Maspero was approached by him in the Berlin Rathaus last August on the evening of the official banquet given to a number of members of the Congress for Historical Sciences, and, on being asked about the discrepancies in the double dates of the papyri, observed that the fact that the Egyptians' year was vague compels the conclusion that something used to be done in order to bring about the concordance of the astronomical phenomena with their calendar. He called "un coup de pouse" this probable means of adjustment, and implicitly suggested that Mahler's work on whose basis the various tables of the present demonstration have been drawn do not give the correspondences of the Egyptian reckoning of the time with the Julian calendar. The place and circumstances hardly being suitable for a long discussion, a copy of page 5 of this work was sent to the distinguished explorer as soon as it came from the press, and there was no further communication since. The Canopus inscription shows by the record of contemporary facts that up to 239 B.C. the Egyptian year had contimued to be vague and no contrivance had been resorted to in order to rectify its anomalous course. The double-dated documents range from 471 B.C. to 410 B.C.

Prof. Kautsch who during the last Congress of Orientalists in Copenhagen attended the lecture given on the papyri, after a question addressed in vain to the
whole audience, was individually asked whether he could say anything in support of the meaning "sur mille rois" for the words אלמלפי מלכי, and his only reply was a not very clear movement of the head. But on the evening of the farewell banquet at the Odd Fellow Palae he said to the lecturer these most characteristic words: "Même si la chronologie des papyrus est fausse, je croirai toujours ì leur authenticité". One need not be a profound psychologist to understand the state of mind of Prof. Kautsch and of all those who stand silent behind him. In a similar condition must have found themselves, before positive and official news came about the extent of the disaster, all persons who had their dear ones in southern Calabria and eastern Sicily at the moment of the terrible convulsion of December $28^{\text {th }}$. They could not believe what they heard, and thousands of people hurried down to the scene of the catastrophe in hopes that the eyes might give the lie to the cars. Alas, they found the calamity was real, and the wailing rose wide-spread and heart-rending! Prof. Kautsch will at length listen to reason, but shall certainly be none the worse for it, considering that, after all, the stir awakened by the contents of these pages has not pulled down the Palazzata of Messina, where in pretty mansions under a lovely sky lived finely cut figures barbouring noble minds and hearts, but will help in expurging grimy dens haunted by ghosts who have for so long poured into the world their impurity and enticed the scholars into paths from which they will only wish they had been taken out some time sooner. Then Prof. Kautsch shall no
longer bother with grammatical phenomena that have existed only in the greedy imagination of the ghosts, but will devote all his scholarly attention to such texts as are the products of the mind working in surroundings of real human associations, whose artistic ideals and philosophical speculation might differ from those of other nations, but who could not be so destitute of taste and commonsense as the supposed writers of these papyri must be supposed to have been.

In the adjoining room of the club, M. Guimet - the founder of the homonymous Paris Museum by him presented to the French nation - who was a member of the Congress but not in the Semitic section, answered, on inquiry, that a work of art might bear a false date, and nevertheless be genuine. Such partial fraud might be perpetrated by the owner of an object who expects to get a higher price by representing it to be older than it is in reality. Following upon this observation, the author of this book subjoined that in the same way to an undated mamuscript a concocted colophon might be appended to testify that it was written a great number of centuries before the day it is offered for sale. But, as M. Guimet was not aware of the papyri question, he was succinctly informed of their double dates and of the demonstration contained in the first part of this work. His reply was then with a smile: "Allez dire a ces messieurs que les papyrus sont faux."
M. Guimet is a friend of truth, however late and by whomsoever it might be discovered; a year or so ago he bought a scarab of gigantic dimensions in whose
praise much had been said in high quarters of archaeological science in France and Belgium, but at the Berlin Congress it was shown that the scarab was a forgery, and M. Guimet by bringing the matter before the Law Court of Paris caused the vendors to confess their guilt and refund the money.

The correspondent of the "Jewish Chronicle" wrote to his paper in connection with the lecture at the Congress" "that Dr. Belleli did not prove to the satisfaction of the audience that his methods of arriving at the data (sic) were complete", but he did not report that he was the first among those who by their uncomely behaviour prevented the lecturer from stating his case, however concisely; nor that the lecturer asked in vain the chairman to fix a meeting at which the calendar tables could be shown, and the demonstration made full. He ought to have added that, after the persistent refusal of the Congress authorities to enter with the proper title the lecture in the programme of the sittings, when the moment inevitably came the use of the French language which the majority of the audience could understand better than the English was not allowed; and that Prof. Haupt of Baltimore who, contrary to his customary assiduity, had been absent during the proceedings of that morning popped in just when the debate was in its inception, went to his place at the. left corner of the room and before he took time to draw his breath proposed, although presumably unaware of what was on, the closure of the discussion, much to the gratification of the obscuran-
tists but without driving away from the mind of the local Politiken's reporter the impression that the lecturer's opinion might be right, as he free of bias put it in the next day's issue of that paper.
Only one person, Dr. Daiches, was allowed leisure in order to oppose the lecturer's view, and he said that the documents could not be a forgery, because their purport perfectly agreed with other Assyrian documents of the same kind discovered long ago in Mesopotamia and published by trustworthy scholars; a remark in reply to which Dr. Daiches was immediately shown the pamphlet Die juidisch-aramaeischen Papyri von Assuan, where Dr. W. Stacrk had already pointed out such similarity, quite independently of the debate of that moment, ${ }^{1}$ ) and was also asked to reflect that the forgers, far from being ignorant, know very well where to go and procure the material suitable for their manufactures.

[^38]The objection was a bubble，and instantly burst；but for the newsmonger of Finsbury Square the opponent ＂proved the authenticity of the papyri from Assyrian evidence＂${ }^{1}$ ）．

[^39]In his report to the „J．C．＂（August $28^{\text {th }}$ 1908）he added his own remarks on the principle that the dates may be wrong without involving any evidence against the genuineness of the documents．＂Among the MSS．



במירוש－בר
 occurs so often in the footnotes all over the essay．

It is obvious that by men who，taking no paios for serious inquiries， give free ran to fancy the forgers are more likoly to be tempted into further falsification than the ficld of science is to be enriched with sound conelusions； and that persons who，in addition to the above capital instance，write
להשלים מעע אה ידיערנט . . . רק טעט
to express the nodding－not tho completing which is the real meaning of －of a little，only a little，to our knowledge＂or the un－Hebrew！

nad witk amazing disregard to geography say

## עלו יוחנן בן קרח וכל הנשארים ביהודה מצרימה

using yor the passage from Palestine to Bgypt，whereas in all instances： the foriy－four ：the Bible gives this word，expressing ascent，for the departure from Frypt to the land of Canaan，and in all instances：the thirteen：em－ plogs the verb 77 ，conveying the iden of descent，for the reverse journey－ it is obvious that such persons cannot possibly be sensitive to the grotes－

 more of the same kind which occur in the papyri．
Dr．Daiches doos not appear to read much genuine Hebrew as it was read a fow generations ago，or ns to－day＇s scholars who have a knack for Latin writing are in continuous and intimate intercourse with Cicero and Horace． To give an idea of how far below he falls from the standard of good style， the following excerpt will be quoted here from a patent bearing，among othera＇，the signature of I．Nchar mentioned on page 17 l of this book．
belonging to Mr. Aldis Wright", he says, „there is a commentary of Japheth ibn Ali in which the scribe has not only copied the date of the MS. from which he worked, and thus given a false date to the present MS., but he has copied it wrongly, and he has added the words 'of the era of the creation' to a Seleucid date. Yet the MS. is genuine; it is the commentary which it claims to be". But the easy rejoinder will be that this is the case of a genuinc work which is already

 השלחן ערוך אשר הם מדפיםים בעת חואת ביתר שאת מנוקה ומנופה מטעיוח ... והנה הנבירים הנ"ל אינם חםים על כספם ומזוילים חוהב מביםם לעשוה הוצאות רבות לשלם במיטב לעומדים במשמרת ,החנהה והנדפם בצדו
 השם שיגמרו השלחן הערוך זה או בעוד שהם מדפיםים אותו יבא אחר לחשיג גבולם להדפים מהוכו ויגרום לחם הפםד. ושאלו ממנו לחגן עליהם ולסטור בעדם חדלת לבל יכנם זד בנבולם

It is of the year 1662, and shows with how much love and intellect the Hebrew was tended at that date and kept up to the requirements of modern life without losing anything of its fresbness and grace. It is positive that the Assuan forgery could not have been committed at the time when the language of the Scriptures was handled with so exquisite taste, as it is also positive that Dr. Daiches would have not played the part of dupe if his pen were so trained as to feel that the purport of the ahove cited lines of his could have heen expressed in something like this manner:

מקום חבוד השׁטרות הוא עיר סונה הנקראת בהם "סון", ויש לחשוב שנכתבו בבית דין של יהודים. כפי חגדאה בל האנשים והנשים שנזכרו בשטרות מעם ישראל היו ובאו בבלל כל ששמוהם בבליים וערביים. גם גודע מן הבתבים האלה שמצב היהודים במצרים היה שלו ורעגן, על מי מנוחות והצלחה, מקצתם חיו בעלי בתים ושדות ומקצהם מלוים בדבית . ודבר מוחלט הוא שהיה להם בית דין פרטי לצודבי האומה ,באשד עיני הקודא תחוינה מישרים במלות "דינא זי עבדין" הנמצאות בשטד אחד.
known, but in Mr. Wright's MS. presents itself under a faulty date due to the ignorance of a second scribe who copied mecanically, made no calculation and, having no idea of the Seleucian era, may have in his hurry and ignorance substituted the word ליצירה for something else he did not understand in his model.

As against that, the Assuan papyri are original deeds of purchase as they came out from the hands of seven notaries public, and bear the latters' own signatures as well as those of continuously changing witnesses ${ }^{1}$ ); and to admit, for example, that on the day on which the transaction of papyrus $J$ was put on record none of the eight men of business who signed the document noticed the disagreement between the $3^{\text {rd }}$ Kislev and the $11^{\text {th }}$. Thoth is as impossible as - to take a handy case - the belief that the editors of the "Jewish Chronicle" pay no heed to the correspondence of the civil and the Hebrew dates placed at the top of their first page in everyone of their issues. There might be among the 3000 and upwards numbers they have published in the 68 years of that paper's existence 9 impressions affccted with a defect of this deseription. But this, being the result of neglect on the part of the printer, could not each time have been protracted beyond one week's duration; whereas an appalling degree of

[^40]idioey is required to believe that $A L L$ the 9 contracts $^{1}$ ) stipulated on behalf of one family in the course of 61 years should offer discrepancies of dates ranging, after the most favourable test, from 2 to 30 days.
"Mr. Wright also possesses", the correspondent goes on remarking, "a marriage contract in which the civil and Hebrew dates do not agree - as far as I remember the wedding seems to have been solemnised on Saturday, Ereb Pesach. Yet one would be seareely justified in relegating the bride and bridegroom, to say nothing of their posterity, to the region of myth or in declaring the Kethuba spurious"'.

There is a visible lack of lucidity and precision in this remark, and nothing ean be said about its bearing on the argument until the correspondent puts the matter in the proper terms; for, as may be ascertained by an inspeetion of the six specimens reproduced in Vol. VII. pages 472-8 of the Jewish Encyclopedia and of the sixteen originals preserved in the British Museum which, taken together, are from London, Amsterdam, Constantinople, Gibraltar, Italy and Persia, there is not one instance of a Kethubah giving the date of the marriage after a calendar which is not the Hebrew. Only the Rome specimen of page 478 bears in lincs 10-11 the Hebrew for March $9^{\text {th }} 1802$, but that was the date of the delivery of the dowry quoted from a civil contract, which performance, to say the least, must have preceded the

[^41]day of the wedding by an odd fortnight or week. The non-Hebrew date of Mr. Wright's speeimen is probably due to a similar circumstanee, or may have been added some time after the marriage and in the empty spaee outside the body of the official text of the deed; in which latter case misreckoning would be quite possible.

The "Jewish Chronicle" belongs to that Press of which Mr. Birrell would say that it tiekles more than teaches, and when a person has anything sensible to say he is sure to meet with all sorts of diffieulties before he is accorded the honour of its columns. Certainly nobody has the right to meddle with a newspaper if it choose to provide its readers with intelleetual light recalling the systems of illumination prior to the diseovery of gas. But the "Jewish Chronicle" in working out its own will goes far beyond that and, when a reetifieation is requested for the mishandling of one's opinions or statements, the shape of remedy bestowed by the editors is in its bad cffects equal to the injury done. That was the case last August and September when the correspondent of that paper reported in the above adumbrated form the Copenhagen lecture on the papyri, and the author of this book sent a letter to set things straight. A mutilated proof was submitted to him who refused approval and repeatedly warned against the insertion of the disfigured text. But it was in vain, and he had to stand the torture of seeing himself shown up to the public as the writer of broken phrases and disconneeted sentences, which was evidently done for the purpose of predisposing the
reader unfavourably and, by this means, taking in his eyes any value from the work whose forthcoming appearance was announced in those lines.

A full paragraph was perversely left out, because it related the talk held by the writer at Copenhagen with Prof. Simonsen who said that, if by the calendar tables the disagreement in the doublc dates were demonstrated, then no doubt could for a moment be entertained about the falsity of the documents. With an allusion to the irrational attachment to a view for the only reason that it has been set forth by great authorities, the correspondent of the paper was advised to make his own the saying

> Amicus Plato, sed magis amica veritas
with which Prof. Simonsen concluded his conversation. A letter of Mr. Greenberg's says that this sentence could not be allowed a place in their columns, because risum teneatis, lectores suavissimi - it asserted in classical form that their correspondent had said lies I!!

The fact of the matter is that the "Jewish Chronicle" has to serve loftier purposes than the pursuit of truth. To maintain its point, to back up through thick and thin a cause when once espoused by some of the gros bonnets who eontrol it is the high task bcfore which all other eonsiderations are worth nothing and must be discarded. Business is the one object they have in view, and in the pursuit of business practical methods secure suceess. At the head of the literary department stands a businesslike man who, cautiously keeping silent in adverse cases,
deals his much eoveted praise in the dose appropriated to the position of each wooer, and thus has made a legion of friends always ready to express in return their admiration for his talents. But whether he can be considered a good servant of science, it will be judged from more than one page of this book where blunders are shown for which he is personally responsible and others that received the consecration of the two periodicals confided to his leadership. In the question of the papyri no paper has done so much to magnify their importance, no paper at the outset of the stir created about them has published so many accounts of lectures delivered on them, and that now the editors of the "Jewish Chronicle" should feel bound to try every effort for their salvation is no wonder.
Bluff is their tactics, pomp and circumstance the means whereby they hope to impose. Mr. Cowley whothrough an extensive abstract of this book circulated since April 1908 - is aware of the serious objections made to his fallacy in conncetion with the papyri and has consequently incumbent upon himself the duty of disproving them, bravely is going instead to Jews' College on the $27^{\text {th }}$ of this month, there to lecture on the Jewish colony of Assuan. ${ }^{1}$ ) Mr. Abrahams comes to

[^42]his help in "Books and" Bookmen" of the last issue of the "Jewish Chronicle" where, speaking of marriage contracts in antiquity, he concludes his paragraph with these ridiculous words: "The Assuan papyri, however, show that in the Fayyum such contracts were known to the Jews before - the italics are his - the Ptolemaic period".

As in many other things, Mr. Abrahams reveals here the shallowness of his learning. He seems never to have - one must not say studied, but - looked carefully at any map of Egypt, and so mixes up two places, Assuan and Fayoum, which are as far distant from each other as Brighton and the land of which Edinburgh is part, with nearly as many moudariat intervening between one another as many are the counties separating Sussex from Mid Lothian. Yet in his weekly reviews he must have spoken "authoritatively" of the

[^43]history and exploration of Egypt hundreds of times.
The chaotic sentence of Mr. Abrahams recalls the answer of a boy at school who said that Socrates wrote tragedies and lived in a tub; or the case related in a recent official report of a teacher, who in his reply to the question about the visible material marks of the Romans stay in this country, not content with the roads, baths, relics of arches, walls, and villas, included also the great cathedrals. But the lad was told that he had confounded Socrates with Sophocles and Diogenes, while the teacher was notified that he had to go after a while through a new examination for the certificate he wanted. The critic of the "Jewish Chronicle" still cnjoys the privilege of being depended upon for the solution of grave problems ${ }^{1}$ ).

[^44]A few more incidents of the Copenhagen Congress deserve record on account of thcir amusing character.
M. Schwab of the Paris Bibliothèque Nationale, a nice gentleman and friend to, although not as strenuous as, M. Guimet on the evening before the official opening asked a knot of scholars for their opinion about the
 found in an epitaph and supposed to be the initials of an invocation or some other phrase. For the time being, it remained an insoluble riddle to everyone; but when, on the ride to Kronborg, M. Schwab was able to show the wholc text of the inscription, the author of these pages, an old acquaintance of his, referred him to Neubauer's palaeographical plates in one of which (XXIV) the Greek town of Thebes is ealled תיבץ offering only a slight variance from the spelling of the epitaph. It was a magnificent Sunday which the members of the Congress shall not forgct so soon for the glory of its northern bluc sky, and the visit to the underground gaols with English-speaking maids of the country as cieerones and to the Castle, which was followed by a friendly entertainment and concert at Marienlyst. Nothing more inducive of peaceful feeling, nothing more fitted to predispose the mind to clear visions.
But Monday dawned, and after Dr. Ginsburg's state-

[^45]ment that the name „Nebuchadnezzar" appears under twenty different spellings in MSS. and old editions of the Hebrew Bible the present writer set forth his view of the Aramaic papyri, thus putting the seal on his sentence of enemy and traitor to Semitic scholardom. Next day M. Schwab had to, as he did, lecture on the epitaphs, and dared as much as to whisper the name of the person who had explained the riddle. The latter felt justified in rising to add a few words about the means contrived by the Jews in order to give to their plaees of residence names either borrowed from the geography of the Bible, like the one under discussion (Cf. תבץ of Judg. 9.50), or composed of words signifying a certain peculiarity, sometimes of the town, sometimes of the Jewish community living therein. The chairman secmed to hint that the observation had no bearing on the subject and could be done without, but mcantime it had been said that, for instance, the Jews of Candia whose great learning was recognised and appreciated all over the world allowed themselves the honour of calling their town קן דעח (pron. Can Dea), i. a. "a ncst of lore". There was at the moment in the room a blond gentleman unknown to the writer and never seen before who, standing by the platform, said, to the aceompaniment of an energetic movement of the head, "No, impossible", to which a reply went in the shape of an offer made to him to have the fare advanced for the journey to Zante where on the walls of
 earthquakes) the words קן דעה occur in a poem of rare beauty relating the vicissitudes by which the Jews
after the Turkish conquest emigrated from Candia to that island. The meeting was at its end, but the man who interrupted lost no time in securing a dignified escape. He had done his duty.

Public discussion being forbidden, the lecturer in a private talk with a scholar who had dabbled in the illustration of the papyri took to show him the wrong use that had been made of Thucydides for the explanation of the Strassburg papyrus. In pages 113-6 of this book the reader has seen of how great importance this point is and how the Sayce-Cowley and the Sachau papyri are as closely connected with the Euting papy* rus as the whole of them with the Blacassiani. Since the doctrine by which the latter fragments were declared to be part of a document of the Persian period has been demonstrated to rest upon no ground, no palaeographical resemblance of other papyri with the Blacassiani could serve as a proof of their belonging to that period; and if they have such a claim they must make it good by internal evidence of their own. The Strass. burg papyrus being the main link in the chain, it is obvious that it is the first bound to be brought to the test of the touchstone and that, if this be proved to be false, the others shall have only to share its fate. The internal evidence offered by that papyrus is the reference to a rebellion of Egypt in the fourteenth year of Darius. Prof. Euting discarded for good reasons Darius I. and fell back upon Darius II. in whose fourteenth year of reign he tried to make out that Thucydides relates a rise of the Egyptians for their emanci-
pation. But in the above mentioned part of this book the proof has been furnished that the Athenian writer had been misquoted and misunderstood, and the downfall of all knowledge and information derived from the Assuan papyri is as much an inevitable consequence of that demonstration as the blowing off of feathers is determined by the gentlest touch of the air in a closed room. The scholar of the conversation, however, made light of all this, and said: "Lasci stare Tucidide".

Count Angelo De Gubernatis, although very well up in Semitic scholarship, gave all his time at the Congress to the Indian transactions, but when the circumstances of the papyri problem were explained to him he took the keenest interest in the matter, and said the demonstration ought to be published.

Prof. Pio Rajna, a member of the Accademia della Crusca, who had met the present writer at the Berlin Congress, on reading La fausseté des papyrus araméens dEEgypte démontrée par larithmétique et la philologie a letter addressed from Copenhagen to the "Vessillo Israclitico" -, while modestly disclaiming an adequate possession of Hebrew and kindred knowledge, wrote to its author his belicf that the arithmetical argument will secure the victory that otherwise one might contest.

In connection with the papyri by far the most curious occurrence at Copenhagen was a long talk the lecturer had one evening after the famous sitting with the Rev. Prof. Geo. Wilkins, of Dublin, who met him when going for refreshments and took him round the town to tell
him first that he did agree with the lecturer's view as to the spurious character of the documents, adding that haste should be made for the publication of the correct theory lest other people should take it up and give it as their own; secondly, after a good ten minutes had passed that be shared the opinion of the majority that the deeds were genuine; in the third stage, that the lecturer's work ought to be published in French, in the country where that language is spoken; and fourthly, that it should not come out anywhere, in any dress.
The strange chat went on until the two members of the Congress reached the square in front of the Town Hall. The clock had just struck the twelfth hour; and shaking hands, they exchanged the double-sided greeting which so nicely depicted the funny situation of that moment: - Good night! - Good morning! Good morning! - Good night!

The book has been in the press since, and the printer expects the manuscript of the last few pages that will bring it to completion. In a few days it shall appear to state its case, and the only hope left to the opponents will be to show that its argument and calculations are wrong or conducted on false principles. But there is abundant reason to belicve that before long they will be congratulated upon their admitting, honestly and sensibly, that two and two make four.

## By the same author:

Mélanges Mébraiques : Un essai de commentaire critique et exégétique sur l'ode de Habacuc. Quelques notes originales sur les Pharisiens et les Sadducéens. Une poêsie hébrćo-grecque du rituel de Corfou. In Greek, pp. 81, $8^{\circ}$. Corfu, J. Nacamulli, 1895.

Théodore Reinach's Wistoire des israélites depuis l'époque de leur dispersion jusqu' à nos jours translated into Greek, pp. $291+\mathrm{XV1}, 8^{\circ}$, and 3 ehronological tables. Corfu, J. Nacamulli, 1895.

La Version néo-grecque du. Pentateuque polyglotte imprimé à Constantinople en 1547. Remarques à propos de la réédition du textc. Offprint from La Revue des Etudes Juives, tome XXXV. Pp. 28, $8^{\circ}$, Paris, 1897. - Written for the purpose of preventing philological thcories from being built upon a wrongly transliterated text
Wn Nouvel Apocryplie. Ftude sur un fragment de manuscrit du vieux Caire, pp. 23, $8^{\circ}$. Leghorn, S. Belforte 1904. - The Hebrew text was edited in the Jewish Quarterly Review (XVI, 63) by Prof. S. Schechter who ascribed it to the Arabic period of the Hebrew literature. - "The riddle of this text consists in the difficulty with which we are met when trying to identify it with any literary product known to us. In this respect all my efforts till now have been in vain... I must thus leave the bibliographical problem an open question, whilst awaiting anxiously a satisfaetory solution." (Schechter, ibid. pp. 427-8). - "In a new pamphlet on this subjeet Dr. L. Belleli makes it probable that the work in question is to be assigned to a very old period of Jewish literature, and in fact may be traced to the time of Titus and Hadrian". (Luzac's Oriental List, 1905, p. 60) - „Ver fasser hebt diejenigen Stellen heraus, welche auf eine bestimmte historische Situation weisen, und zeigt dass diese nur in der Zeit zwischen der Zerstörung Jerusalems und dem Aufstand des Bar-Kochba möglich war". (Bess in Zeitschrift für Kirchengeschichte, 1905, p. 254. - ". ... le ragioni su cui l'autore si basa ci pajono sode e convincenti, come ci pajono, per la maggior parte, giuste le correzioni del testo da lui proposte." (Vessillo Israelitico 1905, p. 20).

Greek and Italian Dialects as spoken hy the Jews in some places of the Balkan peninsula, pp. $8,8^{\circ}$. The original text of the article used for the Jewish Encyclopedia, Vol. VII, pp. 310-313.
Un monument douteux. Remarques sur une inscription communiquée Palestine Exploration Fund. Offprint from Il Corriere Israelitico, tome XLIIII, $\mathrm{n}^{\circ} .9, \mathrm{pp} .6,8^{\circ}$. Trieste, 1905.

In Creta Costantinopoli nei tempi che furono. An encyclical of Pre costan mistorical ohser. the Patriarch Metrophanes of Constantinople tome LIV, nos. 10 and 11, pp. 15. $8^{\circ}$. Casale Monferrato, 1906

 ed the Corgialegno prize; full rcport hy Prof. S. Lambros in Menéry, 1908 pp. 3-31.


[^0]:    1) All doubts on this particular point are removed by the distinct statement which is made in the Canopus inseription about the continuous shifting of the fostivals, and the date 29 h August which is given in footmote b of Dr. Budge's History of Efypt, $I V, 18$ as a correspondence for the first day of the Egyptian year cannot be taken as basis for a calculation, because it is correct only for a group of four consecutive years which, however, is not indicated in that footnote.
[^1]:    1) (שאח ( ( of the prayer bofore the moon in her second phase.
[^2]:    1) In a normal year the months are alternatively of 30 and 29 days in the indicated order of their succession; but when the year is redundant Heshvan has 30 days instead of 29 , and when it is defieient then Kislev has 29 in lieu of the usual 30 .
[^3]:    $1^{\text {st }}$ cycle 3288-3306 A. M. after the cycle 4276-4294 of Mahler's tables 2nd cycle 3307-3325 A.M. after the cycle 4295-4313 of Mahler's tables 3 rd cycle $3326-3344$. M. after the cyele $4314-4332$ of Mahler's tables $4^{\text {th }}$ cycle $3345-3363$ A. M. atter the cycle 4333-4351 of Mahler's tables.

[^4]:    1) For a similar consideration onc cannot conceive how the month of Kislev ran parallel to Thoth in the first year of Artaxerses (pap. B), and then in the sixth year of his rule (pap. D), i. e. after a steady proyress totalising at as many as 55 days, it kept pace not with Athyr, as logic and arithmetic would have us to believe, but with Mesore which in the succession of months stands not further ahead of Thoth, but behind it.
[^5]:    1) Papyrus II which purports to have been written in the 3rd or the year of Darins II's rule las not been included in the list of p. 2, because, a will be seen further on, its double date is imperfect. - Sayce and Cowley were doubtful about the regnal year of papyrus $K$ ( $13^{\text {th }}$ or $14^{(t h)}$, but identified it with 410 B.C. as reproduced by us on p. 2.
[^6]:    1) Jesus ('hrist's birtli occurred in $3761 \Lambda$. M. of the Jewish calendar.
[^7]:    1) $28^{\text {th }}$ to $30^{\text {th }}$ Mesoro 2 days, plus 5 Epagomenal and 11 or 12 days from Thoth.
    2) $17^{\text {th }}$ to $30^{\text {h }}$ Mesore 13 days, plus 5 Epagomenal and 11 or 12 days from Thoth.
[^8]:    

[^9]:    

[^10]:    
    

[^11]:    1) Chronolegische Vergleichungs-Tabelles ete., Vienna, 1889.
    2) For the sake of brevity no notice has been taken of the double manner of reading the dates in some documents, becanse the varinnce, consisting of one unit only, is not such as to lead to a different conclusion.
[^12]:    1) In making these reductions we lave always moved within the limits of the year of cach document, except in the last ease when, the Hebrew month being Shebat, we were obliged to retrocedo to $411 \mathrm{~B} . \mathrm{C}$. in which the Jewish year had its commencement. For reference see p. 2.
    2) See pp. 12-13.
[^13]:    1) The lecture was published in tho March number of the Monthly Noficea of the Society, Pp. 334-345.
[^14]:     , אסור לםפר הימני , Talnud, Shabbath 75
    A elassical illustration of how hotly the calendar problem was discussed among the Rabbis even in the second century of the Christian era is supplied by the Talmud, Rosh $\Lambda$ shana, 25a, b, relating a controversy between the Ruler of the Jews, Gamaliel II, and Joshna ben Hananiah who had serious reasons to disagree with the former as to the beginning of Tishri but nevertheless, after consulting Akiba and Dosa ben Harkinas, submitted to his angry command, and on the day which accorting to his own reckoning ought to be the Day of Atonement reluctantly went to the Ruler's residence, carrying stick and money which was against the prohibitions attached to the observance of the great fast.

[^15]:    1) pp. 7-26.
[^16]:    1) Needless to say that nobody after a cool-minded consideration will accept for the two sentences contained in II 6, 7 the rendering Tes os ne descendront point dans le Chéol... ton ombre (s'étend) sur mille rois proposed in the first footnote of p. 27 of Reoue Archésologique XXXVII by ClermontGanneau who believed that they conveyed a tribute of homage in the Oriental style offered by a high official to his king. It would be bad taste in a wish for a long life to use expressions waving before one's mind the image of a skeleton, while owing to its grammatical form signifies a plurality of thousands, and being singular means one king only. Our rendering of the first of these two words by battalions has its foundation in the acknowledged fact that often enough in the Bible it has the meaning of a body of armed men as well as of a group of persons forming a civil association.
[^17]:    1) Mr. Stanley Cook in bis Glossary of 1898 complies with Clermont-Ganneau's wish, and quoting this very passage renders bs by to, but not without adding immediately afterwards „or rather God my Lord".
[^18]:    1) A little more than one yard scparates in the Neues Museum at Berlin the Sachau papyrus from a Greck one of the third or the fourth century
[^19]:    of the Christian cra in which the writing is closely continuous and offers no hlanks through the whole length of the lines. It is a reading exercise for school-boys, and the end of each word is marked hy a long slanting stroke over the linc. - In the same row a fairly large shect of hlank papyrus dug up in Egypt is exhibited, and is a suggestive sample of the material used by the forgers for manufacturing purposes.

    1) At the commencement of the eighteenth century when the Carpentras slab was landed at Marseilles, , ubi vero et a quo... inventa... ignoramus" (C. I. S, II, tom. I, No. 141) arcbaeological frauds were not a novelty. In a talk with Mr. A. Smith of the British Muscum, he kindly pointed out to us the hook in which Curtius Inghiramius in the year 1637 illustrated scores of Etruscan antiquities alleged to have heen discovered by himself near Volterra. - In the course of an historical rescarch of ours we came across a shrewd dialogue hetwcen Buonaparte and a Greek patriot, Dimo Stefanopoli, who, wishing to induce the Prench General in 1797 to undertake a war against the Turk for the freedom of his country, presented him with a statue of Liberty purporting to have been found in the vicinity of
[^20]:    Sparta. Buonaparte said: „Elle a l'air d'une sainte", to which the other with immediate repartee: Vous ne vous trompez point; c'est la première de toutes les saintes".

[^21]:    1) This theory had found among its propounders no less an authority than Ernest Renan (Histoire générale et système comparé les langues sémiliques, III, 1), but it is not without interest to note that Esther I, 22; III, 12; and VIII, 9 speaking of the decrees of Ahasuerus states distinctly that they were severally written for each part of the Empire in the particular script of each country and in the special language of cach nation: מדינה ומדינה בכחבה ועם ועם כלשונו.
[^22]:    1) Quoique je sois encore intimement convaincu que ma faȩon de déchiffrer et de traduire est encore incomplète, je ne veux plus tarder à publier cet essai. La considération qui me guide surtout en publiant le fac-similé, e'est l'espoir que vingt yeux sanront scruter avee plus d'efficacité que deux yeux seulement, et que des confrères plus compétents et plusagaces sauront découvrir le sens de maints passages restés obscurs. (Més moires présentés par divers savants, lère série, Tom. XI, pp. 300-301.)
[^23]:    1) Clermont-Ganneau in Comptes-rendus, August 14 th 1903 ,en toutes lettres". The conclusion arrived at afterwards robhed this indication of all the importance that it had heen supposed to possess. A document in whieh allusion is made to something which occurred during a king's rule may have been drawn up in his immediate successor's time as well as in any subsequent period of history.
[^24]:    1) In the whole of Greek literature there is not a single example of $\delta \lambda x \grave{z} s$ signifying a warship, whereas the qualificative $\sigma / \tau x \gamma \omega \gamma \bar{c} s$ is often to be seen alongside with it, and the case is not rare of the mercantile $\delta \lambda \kappa \grave{a} 5$ standing in sharp contrast with vaüs, the man-of-war.
[^25]:    1) For the shape of this vessel see reproduction in the Jewish Encyclopedia, III, 282.
[^26]:    1) (Quoted hy Mr. Matthias Levy from a manuscript of the British Museum: "Hakwell or Kahwell, nomen urbis provinciae Volhyniae in Polonia" during the dehate after Mr. Abrahams's lecture to the Jewish Historieal Society the full account of which was given hy the "Jewish Chronicle" of April 1st 1904.

    According to the lecturer line 4 of the inseription refers to "the temple or city of Jerusalem... the pilgrimage of Palestine", and his rendering of the whole runs as follows: "This is the gift of Joseph the son of the Holy Rahbi Yeclicl, (may the memory of the righteous holy he for a hlessing) who answered and asked (i. e. directed) the congregation as he desired (or thought fit) in order to hehold the face of Ariel, as is written in the law of Yekuthicl (i. e. Moses). And charity delivers from doath".
    He sces too much in the abreviation צדיק לכדכח included in the group, whercas the junction of another adjective, קדןw, could not go without a $y$ between it and צדיק. As to the meaning of this little clanse, it is very simple, implying eulogy and not prayer. It occurs in Prov. X, 7 making, so to say, a pair with ברכות לדאש צדיק of v. 6 and rendered "The memory of the just is blessed" in the Authorised Version,
     gate "Memoria justi cum laudibus". Nothing in tbe inscription suggests the idea of martyrdom, and the word of the first line would be insufficient for its conveyance, accompanied as it is hy the commonplace retinue of המשיכ ושואל, while it is well known that distinguisled Rabhis on whom life hrought no trying experiences of auy kind are styled, especially in funcral services, חםדאא קדישא.
    The lecturer mistook line 5 as signifying that the pilgrimage supposed to be expressed hy line 4 was a command of the law of Moses, and left line 6 isolated and with no link whatever, whereas line 5 is only a poetical form of the so frequent clanse ככתוכ על ידי משה גביאך and the like, which introduce a passage quoted from the Scriptures and corrohorating what has heen said in the main sentence. This misconeeption is much to he wondered at, considering that, as the author of Jerrish Life in the Middle Ages, I. A. must have all this phraseology of post-biblical literature unceasingly present in lis mind.

[^27]:    1) In order to prevent waste of time, an answer will be given in advance to the possible objection that osrariov might have been cast, in the mould of orparóv. Nothing of the kind can be sensibly thought of, as in orfaràv the $\tau$ of the last syllable is part of the stem.
[^28]:    1) $\Lambda$ few remarks are suggested by the sentence "This Nicanor must bo the donor of the famous gate called by his name iu the temple of Herod, and mentioned both in the Talmud and by Josephus" of the label attached to the ossuary in the British Musem. There is no mention of this gate in any part of Josephus's works, and the Nicanors whose dealings with the Jews he relates, far from belonging to the llebrew nation, were also anything but likely to send presents to the temple of Jorusalem. It is Yossiphon who does mention a Nicanor gate at the end of Chapter XXIV of its chronieles whiclr were drawn late in the Middle Ages upon a number of sources in addition to the Jewish Antiquities and the Jewish War. Yossiphon assigns a quite differcnt origin to the name Nicanor's gate which, he says, was so called because of the head and arms of the general Nicanor having, after his defeat and death, been hung opposite it:

    ## על בן קראו שם השער החוא שער ניקנור עד היום חזה.

    This is how Yossiphon concludes his account of Geucral Nicanor's hostile intereourse with Judas Maecabeus, agreeing on the whole with what is known about it from Josephus, the Maceaban books of the Bible, Yerushalmi Tahaith bifa and Meyillah 70e which, however, for obvious reasons avoided to give the particulars of the matilation of the enemy's body with the subsequent consecration of the site where the secne was witnessed.

    The critical student will observe that in Yoma $38 \alpha$ and Tosseplita, Yom Hakkippuring 1I, 4 the story of Nicanor's doors is introduced with the word

[^29]:    formed the sole entrance to the whole building: $\mu i x \delta$ in War $V, 5 ; 3$.

    What is said in the different versions of rabbinical literature about the material of the דלת is also the resuli of confused recollections in the trat dition, but the remark may be added that, according to paragraph 4 of the same chapter, the exterial gate had no panel-work, for the set purpose of letting the fine sight of the internal splendour be enjoyed from without and across the yard; so that the Corinthian bronze, not disjoined from golden accessions, nust have served only for the construction of the catablature and the
    
    
    

[^30]:    1) More consonant to truth it will perhaps be to discard the idea of a struggle between "Axrx and "Apro ending in the survival of the latter, and to admit in its stead the transitory existence of the hard from ${ }^{*} A_{\rho} \chi^{\tau} \alpha$ in which the $x$ was in the long run obliterated through friction. Benjamin must have heard the name trom persons who did not pronounce the $\rho$ distinetly.
[^31]:    

[^32]:    of מאורע to which it is also similar in the pointless spelling. The stem of this participle is the late Hebrew and Aramaic $y=x$ which means ,to meet" and ,to happen", but is especially expressive of sensual troubles, as in Yoma I, 1
     קרי לכחן גדול ביום הכפערים

[^33]:    1) Not only vin was the favourite term to denote the forest and its trees, but the verb $\beta$ pów in the sentence is expressive of the stir of veget-
     in modern Greek is the equivalent of "spring" and "fountain." - A conclusive instance of $\varepsilon_{\lambda y}$ being used in the sense of the trees in the wood is supplied by Joscplus's Jewish War $V, 6 ; 2$ where the order is given by Titus to bring from the countryside to Jerusalem the fìn necessary to
    
     The Rev. Mr. Shilleto who in 1889 cdited a revised text of Whiston's translation introduced in the passage at issue the alteration "the place is full of wood of various kinds" which, although timidly, gets near the mark.
[^34]:    1) The word in this sentence has a peculiar meaning under which it is doubtful whether it occurs elsewhere. תר is the Aramaic equivalent of the Hebrew (yishshar) in the sense of "making straight", dirigere; but when the latter Latin verb and its far-lying transformations "adresser" and "to address" eame to signify the dispateh of letters, the sentence in question shows that the Hebrew writers did not fail to follow the example but, borrowing the verb from the sister language, enriched it with the meaning of "to address" to whieh it bears a marked similarity of sound. The earliest English record of this sense attached to the verb "to address" is of the year 1636 in Healey's "they might onely bec addressed unto your Lordship" quoted in Murray's historical dictionary, and it will be noticed that the date is very near the one of the Hebrew document (1666). - This lexical novelty escaped Dr. Gaster's notice who thought that I. Nehar was to be "the bearer" of the message.
[^35]:    1) For the psychology of the Jewish people during that critical period of its history tbis document is extremely instruetive and ougbt to be preserved. It belongs to Mr. Isracl Solomon who, curiously enougb, did not include it among the hundreds of artieles he sent to the Whitechapel Exhibition of 1906. The remarks passed at the time of its publication were only intended to rectify a faulty opinion about its purport, and not in tbo least to minimise its real valuc.
[^36]:    1）Yet sight should not be lost of the fact that in the Jonathan Targum the equivalent of when aceompanied by when or wherms，as all other nouns，to the general law and becomes plural：נבריא or

[^37]:    1）Here the translator scems to have read in the original．
    2）Where，besides the grammatieal form in the Aramaie，it will bo noticed how the paraphrast made of א a dual to which he was apparently misled by the dual in the preeeding clause of the Hebrew text．

[^38]:    1) The very first thing in these papyri that lurt the linguistic feeling of the author of this book was the use made in it of the word 7 לאמ , which looked, as it really is, Hebrew and could hardly be accounted for in the face of לטומר which occurs so frequently in the Aramaic sentence
     the Pentatewch. Dr. Stacrks reads the word Levier, and in a footeote on p. 6 of his tract refers the student about this "Infinitivform" to Dan. 5. 2: בלשצדר אמר בטעם חמרא
    But there is absolutely nothing here to induce the belief that ay is an
    站, ithid. 3. 12 and many other examples unmistakeably akow that the word is a noun. As noun it takes the emphatic form in יהבין Navo itid. 6.3.
     stances of the regular form Nop. But that is a unique case of labial assimilation, as testified by the presence of the dagwesh in so peculise position. An oblitaration - which should be complete in this junctare - of the $D$ in in would be contrary to the rules and possibilitios of plonetics.
[^39]:    1）An article by Dr．Dniches in „Hnshshiloahh＂，July and December 1907 ， on the Sayce－Cowley papyri makes one very secptical about his being qualified to give a judgment worthy of scrious consideration．Eistorieally，he intro－ duces the amusing idee that when，under the leaderahip of Moses，the Jewish nation left Egypt not a few of them remained in that country，and thus creates out of his own imagiantion a Jewisk ywo who would have been the reverse of the Egyptian $ニ$ フコラ（Exod．12．38）that，followed the people burrying away to their fecedom，and whose antipatriotio conduct would have never received from Moses a word of reproack nor been alluded to by the subsequent prophets and writers of the Bible
    Grammatically and lexieally，he forgets that Hebrew，besides inflexion， has its own syntax and its own tate for the arrangement of the words in the sentence，possesses the means of rendering the rarious shades of thought and is not destitute of idioms which give to the speceh its national stamp and flavour ；in other words，that it is neither Volapuik nor Thaperanto．Un－ mindful of all this，he thinks out his sentence in n different language，an offshoot of German with slight graftings of English，and then for cach word he substitutes what he presumes to be its Hebrew equiralent．By this pro－ coss，to express his historieal invention just referred to he uses the word מאמין which conveys the idea of a firm belief and occors in the Dible with regard to the faith in God，Fxod．14．31，an well as in the introductory clause of the Jewish creed：דרי אגני מאמין באטונה שלומה． He renders ad literam＂money－lender＂by noz mib and leaves in the cold the fiae idiomatic expression
    It is impossible in a footnote to deal singulatim with everyone of this chass of flaws in that essay，but the following axtraet offers the image of a bric－ à－brac shop where some little trifle of goed might be found amidst much which is waluolcas and shabby，while disorder prevails sll through．Here is the exiract in which it will be notied that repetitions at extremely short intervals are the most unpalatable characteristic．
    
    
    

[^40]:    1) They number in all fifty-six and, on the assumption that the papyri are genuine, if the chaos in the chronology were the outcome of a conspiracy נתחן בר ענניח of a witness in $\mathbf{C}$ and D must have been the worst scoundrel in the gang. If he were innocent, but never noticed the error, it would be difficult to imagine a more stupid family than מחחיה's who confided their interests to a man of so weak perspicacity.
[^41]:    1) Or 8 out of the 9 , if the double dates of one whichsoever of these documents be admitted as correct and used as a basis for computation. That tbey all belonged to one family, it is the generally accepted opinion based on the circumstance of their having been "kcpt" in one box.
[^42]:    1) The „J. C." of April $2^{\text {nd }}$ gives an extensive account of this lecture which unfortunately cannot be dealt with bere at any considerable lengtb, as this book must not be held over indefinitely and Prof. Sachau must be afforded a chance of considering its observations before bis Elepbantine "hymns and otber literary compositions in it (tbe Aramaic vernacular) and not in Hcbrew" come out from the press.
    Nevertheless, a point or two cannot be passed unnoticed. It is gratifying to see the lecturer affirm in no roundabout way that the documents are
[^43]:    "dated with great care by tho dato of the month according to the Jigyptian and also Hebrew calendar*; but, on the other hand, ono chanet holp nasking why no pains are being taken to show that this "great care" is a reality, the more so that, ${ }^{\text {n }} \mathrm{Mr}$. A. Val Finkenstein pointed it out to the nudionce, tho proof has been furnished at a leoture in the Victoria Institute that the parallel dates, as he calls them, do not agree with any systen, actual or possible, of the Hebrew anlendar.
    The otber point is that the leotarer said - was it in the way of selfjustification? - at the outset of his paper that the lorsian origin and period of the Blacassiani fragments has been demonstrated in 1878; but the same student asked him whether it is safe to say that the author of that theory understood the fragmento aright, especially in regard to the words every reader of this book knows. The answer was, not from the lecturer, that the question liad been "discussed" and "sottled" at Copenhagen. The dissenter was called to order and summoned to stop; he asked to have a protest of his entered in the minates of the meeting, to which he was told bo had no right. - All this is not reported in the "Jewish Chronicle", nor could be expected to bo. The list of speakers is given short and dry, so that nobody can boast preference or complain of slight.

[^44]:    1) Bad grography is the speciality of the London coreligionists of Benjamin f Tudela. - In December last the "J. C". put Aleppo immediately beneath the heading Palestine, and some time between the Algecirns conferenco and the Young 'Turks' revolation a well-known sponker, addressing a meeting at Manchester, amidst deafening applause, pheed Morocco in Abdul Hamid's empire. But geography is not the only field of I. A.'s triumphes. He achieves distinction in theology as well. In the previous number of the "J. C." talking of the revised prayer-book of twe English Church commented on the clause

    האומר אין חחייה המהیם טן התורה אין לו הלק לשלם הבא
    of Sanhedrin X, 1 in the following terms: "Here belief is necessary for salvation. It is in a sonse a case of 'poetical justice'. Yow say there is no after-life? Well then, you shall not share it!" - In this instance the confusion is about tho two dogmas of immortality and resurrection. At the time the aphorism was attered there was among the Jews a class of thinkers who bad fnith in the former, but believed not in the latter. The seepticism was cansed, in addition to the observation of the perishable nature of the buman body, by the absence in the Old 'lestament of any distinct statement on the tenet. These deniers of the relurn to the lifo of this world not only admitted the immortality of the soul, but entertained it as a fond hope of eternnl and never-to-be-interrupted blessedness after the worries of the earth. The author of the aptorism warged them in sharp terms that

[^45]:    they bad to accept both dogmas, because the rejection of the one would be followed by the forfeiture of the benefit promised by the other.
    Jests of the kind meant by I. A. are not missing in the Midrashic and Talmudic literature, a familiar example being in the Passover Haggadah the bickering of the orthodox with the unbeliever over the pronouns thes לכat and an $^{\boldsymbol{T}}$. But each thing has to remain in its place, and one must not see fun where a scrious question is at stake.

