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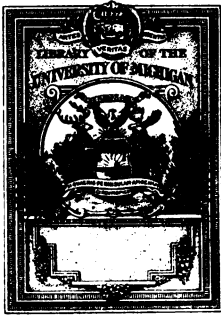
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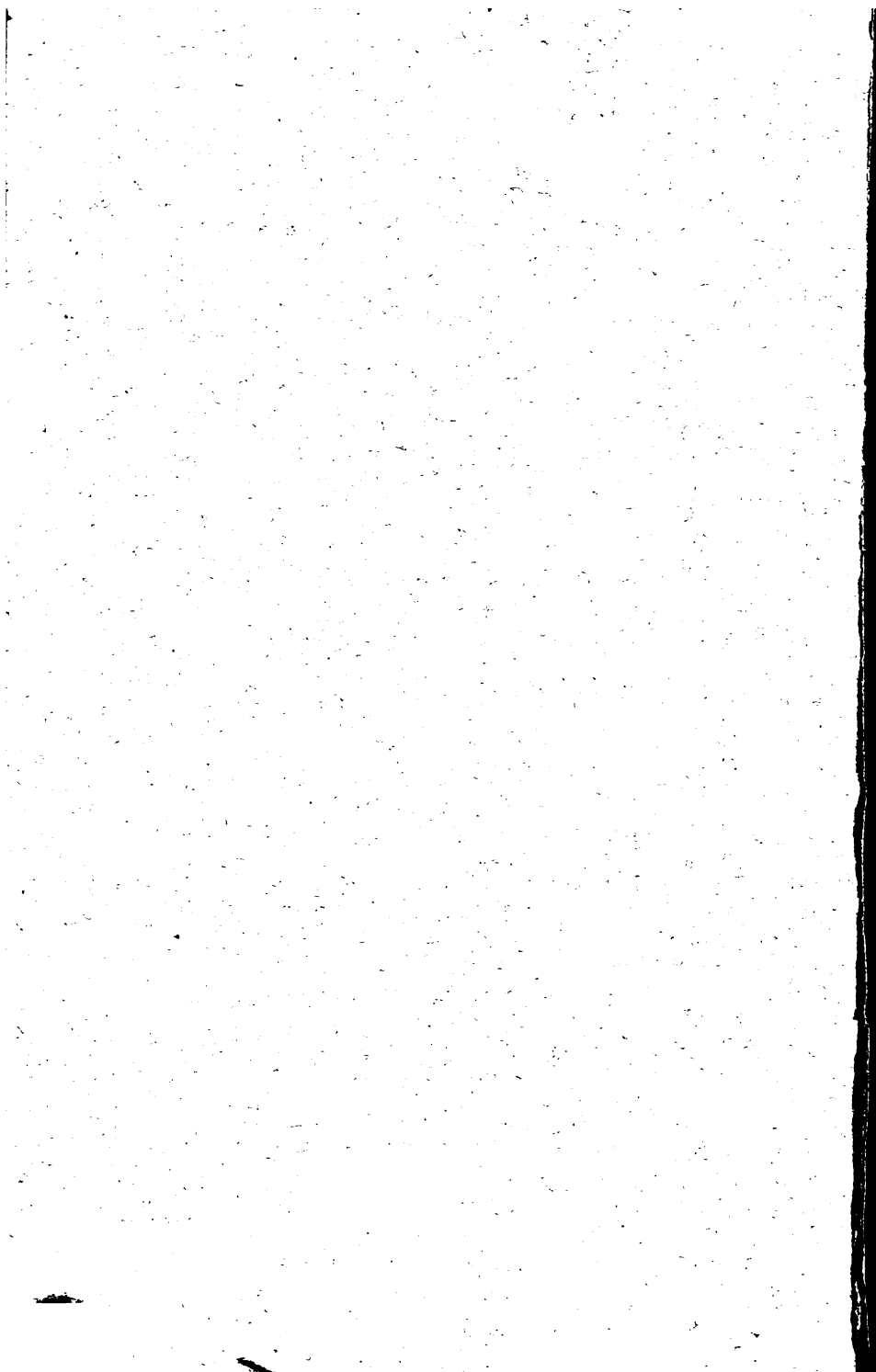
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BANGKOK CALENDAR,

FOR THE YEAR OF OUR LORD

1862.



CORRESPONDING TO THE SIAMESE CIVIL ERA

1223-4,

AND NEARLY SO TO THE CHINESE CYCLE ERA

4499,

BEING THE 59TH YEAR OF THE 75TH CHINESE CYCLE OF 60.

—◆◆◆—
THE

CHINESE NEW YEAR COMMENCES ON THE THIRTIETH OF JANUARY;

THE

SIAMESE NEW YEAR ON THE THIRTY-FIRST OF MARCH.

—◆◆◆—
Compiled by D. B. B.

Bangkok,

Printed at the Press of the

AMERICAN MISSIONARY ASSOCIATION.

1862.

PRICE—\$1.

EXPLANATORY NOTE.

The asterisks placed in the column of Siamese days of Moon, denote the days which the Buddhists hold in some degree sacred.

The calculations for the rising and setting of the Sun and Moon are for Bangkok Mean time. The Sun's declinations are for Apparent Noon at Bangkok.

Apparent or Sun time may readily be deduced from Mean or Clock time, when Clock time is before the Sun, (Clock fast), by subtracting from Mean time the amount of its excess as found in the column;—when Clock time is slow, by adding to it the amount of its tardiness.

CHRONOLOGICAL NOTES.

Dominical Letter	E.	Solar Cycle	23	Roman Indiction	5
Epact	0.	Lunar Cycle	1	Julian Period	6575

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The year of our Lord 1862 corresponds to the year  
 7272 since the Creation (according to Hale).  
 5622—3 of the Jewish Era.  
 2615 from the foundation of Rome.  
 2609 of the era of Nabonasser.  
 2638 of the Olympiads.  
 2405—6 since the death of Buddh or Gaudama.  
 1278—9 of the Mohammedan Era.  
 1231—2 of the Parsee Era Yezdijerd.  
 86—87 of the U.S. declaration of Independence.

## ECLIPSES.

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In the year 1862 there will be three Eclipses of the Sun, and two of the Moon— all invisible at Bangkok.

- I. A total Eclipse of the Moon, June 12th—visible in North and South America
- II. A partial Eclipse of the Sun, June 27th—visible in Madagascar, Cape of Good Hope, and a very small portion of Australia.
- III. A partial Eclipse of the Sun, November 22nd—visible only to a small portion of the Great Southern Ocean.
- IV. A total Eclipse of the Moon, December 6th—visible in Great Britain, North and South America, and Western Europe.
- V. A partial Eclipse of the Sun, December 21st—visible in the greater part of the continent of Asia.

## TRUE PLANETS.

**MERCURY** will be visible as an Evening Star about Feb. 10, June 6, and Oct. 2— and as a Morning Star about March 25, July 24, and November 12.

**VENUS** will be Evening Star until February 26th, and Morning Star from that time until December 10th, and Evening Star again till the close of the year. It will be invisible for some days before and after change, because of its proximity to the Sun.

**MARS** rises at midnight about May 27th, and rises at sun set about October 5th.

**JUPITER** rises at midnight about January 1st,—is on the meridian at midnight about March 12th,—sets at midnight about June 9th,—and sets with the Sun about September 30.

**SATURN** will be only a few degrees West of Jupiter throughout the year.

## PLANETARY PHENOMENA.

AT BANGKOK.

### JANUARY.

- DAY  
 2 Saturn stationary.  
 12 Mercury in Sup. Conj. with Sun.  
 12 Jupiter stationary.  
 21 Jupiter in conjunction with Moon.  
 21 Venus at greatest brilliancy.  
 30 Jupiter in conj. with Beta Virginis.  
 31 Reappearance of Saturn's Ring.

### FEBRUARY.

- 2 Venus stationary.  
 10 Mercury's greatest elong. 18° 8' E.  
 12 Mercury in conjunction with Venus.  
 16 Jupiter & Saturn in conj. with Moon.  
 26 Mercury & Venus inf. conj. with Sun.

### MARCH.

- 10 Mercury stationary.  
 16 Venus stationary.  
 21 Sun enters Aries—Vernal Equinox.  
 25 Mercury's greatest elong. 27° 40' W.

### APRIL.

- 2 Venus at greatest brilliancy.

### MAY.

- 6 Mercury in superior conj. with Sun.  
 6 Venus' greatest elongation 46° 4' W.  
 9 Jupiter & Saturn in conj. with Moon.  
 17 Disappearance of Saturn's Ring.  
 18 Jupiter stationary.

### JUNE.

- 6 Mercury's greatest elong. 23° 55' E.  
 7 Uranus in conjunction with Sun.  
 10 Mars in conjunction with Moon.  
 21 Sun enters Cancer—Summer solstice.

### JULY.

- DAY  
 1 Sun in Apogee.  
 3 Jupiter in conjunction with Moon.  
 3 Mercury in inferior conj. with Sun.  
 14 Mercury stationary.  
 24 Mercury's greatest elong. 19° 46'.

### AUGUST.

- 5 Jupiter in conj. with Beta Virginis.  
 13 Reappearance of Saturn's Ring.  
 18 Mercury in superior conj. with Sun.

### SEPTEMBER.

- 2 Mars stationary.  
 8 Mercury in conjunction with Jupiter.  
 18 Saturn in conjunction with Sun.  
 21 Sun enters Libra—Autumnal equinox  
 22 Venus in conj. with Spica Virginis.  
 30 Jupiter in conjunction with Sun.

### OCTOBER.

- 2 Mercury's greatest elong. 25° 26' E.  
 26 Mercury in inferior conj. with Sun.

### NOVEMBER.

- 4 Mars in conjunction with Moon.  
 5 Mercury stationary.  
 7 Mars stationary.  
 12 Mercury's greatest elong. 19° 9' W.

### DECEMBER.

- 6 Uranus in conjunction with Moon.  
 10 Venus in superior conj. with Sun.  
 17 Jupiter in conjunction with Moon.  
 19 Mars in conj. with Epsilon Piscium.  
 21 Saturn in conj. with Eta Virginis.  
 21 Sun enters Capricorn—winter solstice  
 22 Mercury in superior conj. with Sun.

# JANUARY, 31 days.

**WEATHER.**—This month is the coolest in the year. The thermometer is often as low as 68° Fahrenheit in the morning, and sometimes, though rarely, below 60°. The wind generally is N., N. N. E., and sometimes S. S. W.—S. The rains having ceased about the last of Oct. the water has fallen in the rivers, so that they have not overflowed their banks since the middle of Dec. The river banks look rather high and pleasant. The foot-paths are dry, and in their best state for travelers, and there is no danger from Jungle fevers. Some of the mornings are accompanied by fogs, which however are not unhealthy. One or two copious showers may be expected about the middle of the month. The weather is very fine from the beginning to the end.

*Day of Month  
and Week.*

## Memoranda.

1 W.  
2 Th.  
3 Fr.  
4 Sat.  
5 Su.  
6 M.  
7 Tu.  
8 W.  
9 Th.  
10 Fr.  
11 Sat.  
12 Su.  
13 M.  
14 Tu.  
15 W.  
16 Th.  
17 Fr.  
18 Sat.  
19 Su.  
20 M.  
21 Tu.  
22 W.  
23 Th.  
24 Fr.  
25 Sat.  
26 Su.  
27 M.  
28 Tu.  
29 W.  
30 Th.  
31 Fr.



# JANUARY, 31 days.

5

BANGKOK.

{ Mean Temperature, 77.73.  
 { Extremes of ditto, 68—89.  
 { Average number of days on which rain falls, 1.

### MOON'S PHASES.

|               |           |           |           |      |              |           |           |    |           |           |    |    |      |
|---------------|-----------|-----------|-----------|------|--------------|-----------|-----------|----|-----------|-----------|----|----|------|
|               | <i>d.</i> | <i>h.</i> | <i>m.</i> |      | <i>d.</i>    | <i>h.</i> | <i>m.</i> |    | <i>d.</i> | <i>h.</i> |    |    |      |
| First Quarter | 8         | 5         | 29        | A.M. | Last Quarter | 23        | 1         | 19 | P.M.      | Apogee    | 10 | 3  | P.M. |
| Full Moon     | 16        | 8         | 37        | A.M. | New Moon     | 30        | 9         | 33 | A.M.      | Perigee   | 26 | 10 | A.M. |

| Day of Month and Week | Sun Rises |    | Sun Sets |    | Clock Fast |    | Moon Rises & Sets. |    | Chin-ese Moon   | Siam-ese Moon   | NOTABLE DAYS &c.                        |
|-----------------------|-----------|----|----------|----|------------|----|--------------------|----|-----------------|-----------------|-----------------------------------------|
|                       | H.        | M. | H.       | M. | M.         | S. | H.                 | M. | 12th            |                 |                                         |
| 1 W.                  | 6         | 28 | 5        | 40 | 3          | 52 |                    |    | 2               | 2 <sup>nd</sup> | Sun's apprt. dec. South 23° 2' 2"       |
| 2 Th.                 | 6         | 28 | 5        | 40 | 4          | 20 | 7                  | 22 | 3               | 2               | Calcutta retaken, 1757.                 |
| 3 Fr.                 | 6         | 29 | 5        | 41 | 4          | 48 | 8                  | 19 | 4               | 3               | Day's length 11h. 12m.                  |
| 4 Sat.                | 6         | 29 | 5        | 41 | 5          | 15 | 9                  | 12 | 5               | 4               | West Indies discovered 1492.            |
| 5 S.                  | 6         | 29 | 5        | 42 | 5          | 42 | 10                 | 2  | 6               | 5               | 2 <sup>nd</sup> Sunday after Christmas. |
| 6 M.                  | 6         | 29 | 5        | 42 | 6          | 9  | 10                 | 50 | 7               | 6               | Epiphany.                               |
| 7 Tu.                 | 6         | 29 | 5        | 43 | 6          | 35 | 11                 | 38 | 8               | 7               | Sun's apprt. dec. South 22° 24' 29"     |
| 8 W.                  | 6         | 30 | 5        | 44 | 7          | 1  | morn               |    | 9               | 8*              | Battle of New Orleans, 1815.            |
| 9 Th.                 | 6         | 30 | 5        | 44 | 7          | 26 | 0                  | 25 | 10              | 9               | Day's length 11h. 14m.                  |
| 10 Fr.                | 6         | 30 | 5        | 45 | 7          | 50 | 1                  | 13 | 11              | 10              | Capture of Cape Good Hope, 1806.        |
| 11 Sat.               | 6         | 31 | 5        | 45 | 8          | 14 | 2                  | 3  | 12              | 11              | Capture of Trincomalle, 1798.           |
| 12 S.                 | 6         | 31 | 5        | 45 | 8          | 37 | 2                  | 53 | 13              | 12              | 1 <sup>st</sup> Sunday after Epiphany.  |
| 13 M.                 | 6         | 31 | 5        | 46 | 9          | 0  | 3                  | 44 | 14              | 13              | George Fox died, 1604.                  |
| 14 Tu.                | 6         | 31 | 5        | 47 | 9          | 22 | 4                  | 34 | 15              | 14              | Sun's apprt. dec. South 21° 20' 50"     |
| 15 W.                 | 6         | 32 | 5        | 47 | 9          | 43 | 5                  | 24 | 16              | 15*             |                                         |
| 16 Th.                | 6         | 32 | 5        | 48 | 10         | 4  | rises              |    | 17              | 1               | Day's length 11h. 16m.                  |
| 17 Fr.                | 6         | 32 | 5        | 48 | 10         | 24 | 7                  | 18 | 18              | 2               | Franklin born, 1706.                    |
| 18 Sat.               | 6         | 32 | 5        | 49 | 10         | 43 | 8                  | 10 | 19              | 3               | Penny Postage, 1840.                    |
| 19 S.                 | 6         | 32 | 5        | 49 | 11         | 2  | 9                  | 3  | 20              | 4               | 2 <sup>nd</sup> Sunday after Epiphany.  |
| 20 M.                 | 6         | 32 | 5        | 50 | 11         | 20 | 9                  | 56 | 21              | 5               |                                         |
| 21 Tu.                | 6         | 32 | 5        | 50 | 11         | 37 | 10                 | 50 | 22              | 6               | Battle of Cowpens, 1781.                |
| 22 W.                 | 6         | 33 | 5        | 51 | 11         | 53 | 11                 | 47 | 23              | 7               | Sun's apprt. dec. South 19° 43' 39"     |
| 23 Th.                | 6         | 33 | 5        | 51 | 12         | 9  | morn.              |    | 24              | 8*              | Day's length 11h. 18m.                  |
| 24 Fr.                | 6         | 33 | 5        | 52 | 12         | 23 | 0                  | 46 | 25              | 9               | Indian Mutiny, 1857.                    |
| 25 Sat.               | 6         | 33 | 5        | 53 | 12         | 37 | 1                  | 48 | 26              | 10              | Shah Allum defeated at Patna 1760.      |
| 26 S.                 | 6         | 33 | 5        | 53 | 12         | 51 | 2                  | 49 | 27              | 11              | 3 <sup>rd</sup> Sunday after Epiphany.  |
| 27 M.                 | 6         | 33 | 5        | 53 | 13         | 3  | 3                  | 50 | 28              | 12              |                                         |
| 28 Tu.                | 6         | 33 | 5        | 54 | 13         | 15 | 4                  | 52 | 29              | 13              | Day's length, 11h. 19m.                 |
| 29 W.                 | 6         | 33 | 5        | 54 | 13         | 25 | 5                  | 40 | 30              | 14              | Sun's apprt. dec. South 17° 59' 15"     |
| 30 Th.                | 6         | 33 | 5        | 55 | 13         | 35 | sets               |    | 1 <sup>st</sup> | 15*             | CHINESE NEW-YEAR.                       |
| 31 Fr.                | 6         | 33 | 5        | 55 | 13         | 45 | 6                  | 58 | 2               | 3 <sup>rd</sup> |                                         |

# FEBRUARY, 28 days.

**WEATHER.**—During this month the wind blows much of the time from the N. E., at other times from the E. & S.S.E., and the weather is cool, pleasant, and healthy. The Buddhists of Siam employ much of this month in visiting *Prabat*, the place of the supposed foot-print of Buddha. This is one of the best months to journey through the jungles, and over the vast prairies, as the ground is perfectly dry, and the river banks are high above the water. Sometimes the wind veers to the South, and the weather becomes quite oppressive for a day or two. Two or three showers of rain generally occur about the middle of the month, which is regarded as indispensable to set the Mango fruit, then hanging thickly and charmingly upon the limbs, like small green egg-plumbs.

*Day of Month  
and Week.*

## Memoranda.

1 Sat.  
2 Su.  
3 M.  
4 Tu.  
5 W.  
6 Th.  
7 Fr.  
8 Sat.  
9 Su.  
10 M.  
11 Tu.  
12 W.  
13 Th.  
14 Fr.  
15 Sat.  
16 Su.  
17 M.  
18 Tu.  
19 W.  
20 Th.  
21 Fr.  
22 Sat.  
23 Su.  
24 M.  
25 Tu.  
26 W.  
27 Th.  
28 Fr.

# FEBRUARY, 28 days.

7

**BANGKOK.**

{ Mean temperature 80-72.  
 { Extremes of ditto 69-91.  
 { Average number of days on which rain falls 3.

**MOON'S PHASES.**

*d. h. m.*      *d. h. m.*      *d. h.*  
 First Quarter 7 2 53 A.M. | Last Quarter 21 8 53 P.M. | Apogee 7 11 A.M.  
 Full Moon 14 11 48 P.M. | New Moon 28 11 31 P.M. | Perigee 20 5 A.M.

| Day of Month and Week | Sun Rises |    | Sun. Sets |    | Clock Fast |    | Moon Rises & Sets |    | Chin-ese Moon |     | Siam-ese Moon |     | NOTABLE DAYS &c.                   |
|-----------------------|-----------|----|-----------|----|------------|----|-------------------|----|---------------|-----|---------------|-----|------------------------------------|
|                       | H.        | M. | H.        | M. | M.         | S. | H.                | M. | 1st           | 2nd | 1st           | 2nd |                                    |
| 1 Sat.                | 6         | 32 | 5         | 56 | 13         | 53 | 7                 | 51 | 3             |     |               |     |                                    |
| 2 S.                  | 6         | 31 | 5         | 56 | 14         | 1  | 8                 | 41 | 4             | 3   |               |     | 4th Sunday after Epiphany.         |
| 3 M.                  | 6         | 31 | 5         | 57 | 14         | 7  | 9                 | 29 | 5             | 4   |               |     | Sir Robert Peel born, 1788.        |
| 4 Tu.                 | 6         | 30 | 5         | 57 | 14         | 13 | 10                | 18 | 6             | 5   |               |     | Day's length 11h. 27m.             |
| 5 W.                  | 6         | 30 | 5         | 58 | 14         | 18 | 11                | 7  | 7             | 6   |               |     | Sun's apprt. dec. South 15° 59' 6" |
| 6 Th.                 | 6         | 30 | 5         | 58 | 14         | 22 | 11                | 55 | 8             | 7   |               |     | Singapore settled, 1819.           |
| 7 Fr.                 | 6         | 30 | 5         | 58 | 14         | 26 | morn              |    | 9             | 8*  |               |     |                                    |
| 8 Sat.                | 6         | 30 | 5         | 59 | 14         | 28 | 0                 | 44 | 10            | 9   |               |     | Battle of Eylau, 1807.             |
| 9 S.                  | 6         | 30 | 6         | 0  | 14         | 30 | 1                 | 34 | 11            | 10  |               |     | 5th Sunday after Epiphany.         |
| 10 M.                 | 6         | 30 | 6         | 0  | 14         | 31 | 2                 | 24 | 12            | 11  |               |     | Queen Victoria married, 1840.      |
| 11 Tu.                | 6         | 29 | 6         | 1  | 14         | 31 | 3                 | 14 | 13            | 12  |               |     | Sun's apprt. dec. South 14° 3' 21" |
| 12 W.                 | 6         | 29 | 6         | 1  | 14         | 30 | 4                 | 2  | 14            | 13  |               |     | Lady Jane Grey beheaded, 1554.     |
| 13 Th.                | 6         | 29 | 6         | 1  | 14         | 29 | 4                 | 48 | 15            | 14  |               |     | Captain Cook killed, 1779.         |
| 14 Fr.                | 6         | 28 | 6         | 1  | 14         | 27 | 5                 | 33 | 16            | 15* |               |     | St. Valentine.                     |
| 15 Sat.               | 6         | 27 | 6         | 1  | 14         | 24 | rises             |    | 17            | 1   |               |     | Day's length 11h. 34m.             |
| 16 S.                 | 6         | 27 | 6         | 2  | 14         | 20 | 7                 | 50 | 18            | 2   |               |     | Septuagesima Sunday.               |
| 17 M.                 | 6         | 26 | 6         | 2  | 14         | 16 | 8                 | 45 | 19            | 3   |               |     | Battle of Meeanee (Scinde) 1843.   |
| 18 Tu.                | 6         | 26 | 6         | 3  | 14         | 11 | 9                 | 42 | 20            | 4   |               |     | Luther died, 1546.                 |
| 19 W.                 | 6         | 25 | 6         | 3  | 14         | 5  | 10                | 42 | 21            | 5   |               |     | Sun's apprt. dec. South 11° 22' 4" |
| 20 Th.                | 6         | 25 | 6         | 3  | 13         | 59 | 11                | 42 | 22            | 6   |               |     |                                    |
| 21 Fr.                | 6         | 25 | 6         | 4  | 13         | 52 | morn              |    | 23            | 7   |               |     | Day's length 11h. 39m.             |
| 22 Sat.               | 6         | 24 | 6         | 4  | 13         | 44 | 0                 | 44 | 24            | 8*  |               |     | Washington born, 1732.             |
| 23 S.                 | 6         | 24 | 6         | 4  | 13         | 36 | 1                 | 43 | 25            | 9   |               |     | Sexagesima Sunday.                 |
| 24 M.                 | 6         | 23 | 6         | 4  | 13         | 27 | 2                 | 40 | 26            | 10  |               |     |                                    |
| 25 Tu.                | 6         | 22 | 6         | 4  | 13         | 18 | 3                 | 34 | 27            | 11  |               |     | Battle of Trenton, 1776.           |
| 26 W.                 | 6         | 22 | 6         | 4  | 13         | 8  | 4                 | 22 | 28            | 12  |               |     | Sun's apprt. dec. South 8° 47' 36" |
| 27 Th.                | 6         | 22 | 6         | 4  | 12         | 57 | 5                 | 8  | 29            | 13  |               |     |                                    |
| 28 Fr.                | 6         | 21 | 6         | 4  | 12         | 46 | 5                 | 49 | 30            | 14* |               |     | Day's length 11h. 43m.             |

# MARCH, 31 days.

**WEATHER.**—It continues dry, with more hot days, and fewer cool. The wind is E. N. E. S. and S. S. W. The latter is strong and steady through the day. It is called by the Siamese, "*Lom wou*," (kite wind); or "*Lom tap'ou*," (junk wind). It is much used by them in playing games of kites and the air resounds with the noise of the kites, and the shouts of victory from the multitudes of people engaged in the sport. Two or three smart showers of rain usually fall about the time of the vernal equinox, attended with much lightning and heavy thunder. Dry and hot weather succeed this, increasing daily into the next month. Though the thermometer in the daytime generally rises as high as 93, the nights are not particularly uncomfortable to foreigners.

*Day of Month  
and Week.*

## Memoranda.

1 Sat.  
2 Su.  
3 M.  
4 Tu.  
5 W.  
6 Th.  
7 Fr.  
8 Sat.  
9 Su.  
10 M.  
11 Tu.  
12 W.  
13 Th.  
14 Fr.  
15 Sat.  
16 Su.  
17 M.  
18 Tu.  
19 W.  
20 Th.  
21 Fr.  
22 Sat.  
23 Su.  
24 M.  
25 Tu.  
26 W.  
27 Th.  
28 Fr.  
29 Sat.  
30 Su.  
31 M.

# MARCH, 31 days.

BANGKOK.

Mean temperature 84.51.  
 Extremes of ditto 74—94.  
 Average number of days on which rain falls 4.

## MOON'S PHASES.

First Quarter 9 0 4 A.M. | Last Quarter 23 4 32 A.M. | Apogee 7 8 A.M.  
 Full Moon 16 11 59 A.M. | New Moon 30 2 27 P.M. | Perigee 19 3 A.M.

| Day of Month and Week | Sun Rises |       | Sun Sets |       | Clock Fast | Moon Rises & Sets | Chin-Siam-see   see Moon Moon |                                    | NOTABLE DAYS &c. |
|-----------------------|-----------|-------|----------|-------|------------|-------------------|-------------------------------|------------------------------------|------------------|
|                       | H. M.     | H. M. | H. M.    | H. M. |            |                   | 2nd                           | 4th                                |                  |
| 1 Sat.                | 6 20      | 6 5   | 12 35    | sets  | 2nd        | 4th               |                               | St. David's day.                   |                  |
| 2 S.                  | 6 19      | 6 5   | 12 23    | 7 20  | 2          | 2                 |                               | Quinquagesima Sunday.              |                  |
| 3 M.                  | 6 19      | 6 5   | 12 10    | 8 9   | 3          | 3                 |                               | Day's length 11h. 46m.             |                  |
| 4 Tu.                 | 6 18      | 6 5   | 11 57    | 8 58  | 4          | 4                 |                               | Sun's apprt. dec. South 6° 81' 12" |                  |
| 5 W.                  | 6 18      | 6 6   | 11 43    | 9 47  | 5          | 5                 |                               | Ash Wednesday.                     |                  |
| 6 Th.                 | 6 17      | 6 6   | 11 29    | 10 36 | 6          | 6                 |                               |                                    |                  |
| 7 Fr.                 | 6 16      | 6 6   | 11 15    | 11 26 | 7          | 7                 |                               | Scotland united to England, 1707.  |                  |
| 8 Sat.                | 6 16      | 6 6   | 11 0     | morn  | 8          | 8*                |                               |                                    |                  |
| 9 S.                  | 6 15      | 6 6   | 10 45    | 0 15  | 9          | 9                 |                               | 1st Sunday in Lent.                |                  |
| 10 M.                 | 6 14      | 6 6   | 10 29    | 1 5   | 10         | 10                |                               | Benjamin West died, 1820.          |                  |
| 11 Tu.                | 6 14      | 6 6   | 10 13    | 1 52  | 11         | 11                |                               | Napoleon outlawed, 1815.           |                  |
| 12 W.                 | 6 13      | 6 7   | 9 57     | 2 38  | 12         | 12                |                               | Ember Week.                        |                  |
| 13 Th.                | 6 13      | 6 7   | 9 41     | 3 24  | 13         | 13                |                               | Sun's apprt. dec. South 8° 0' 46"  |                  |
| 14 Fr.                | 6 12      | 6 7   | 9 24     | 4 8   | 14         | 14                |                               | Admiral Byng shot, 1757.           |                  |
| 15 Sat.               | 6 11      | 6 7   | 9 7      | 4 52  | 15         | 15*               |                               | Day's length 11h. 55m.             |                  |
| 16 S.                 | 6 11      | 6 7   | 8 49     | 5 35  | 16         | 1                 |                               | 2nd Sunday in Lent.                |                  |
| 17 M.                 | 6 10      | 6 7   | 8 32     | rises | 17         | 2                 |                               | St. Patrick.                       |                  |
| 18 Tu.                | 6 9       | 6 7   | 8 14     | 8 31  | 18         | 3                 |                               |                                    |                  |
| 19 W.                 | 6 8       | 6 7   | 7 56     | 9 34  | 19         | 4                 |                               |                                    |                  |
| 20 Th.                | 6 8       | 6 8   | 7 38     | 10 36 | 20         | 5                 |                               | Sun's apprt. dec. South 0° 15' 4"  |                  |
| 21 Fr.                | 6 7       | 6 8   | 7 20     | 11 38 | 21         | 6                 |                               | Sun's apprt. dec. North 0° 8' 37"  |                  |
| 22 Sat.               | 6 6       | 6 8   | 7 1      | morn  | 22         | 7                 |                               | Day's length 12h. 2m.              |                  |
| 23 S.                 | 6 6       | 6 8   | 6 43     | 0 36  | 23         | 8*                |                               | 3rd Sunday in Lent.                |                  |
| 24 M.                 | 6 5       | 6 8   | 6 25     | 1 30  | 24         | 9                 |                               | Queen Elizabeth died, 1603.        |                  |
| 25 Tu.                | 6 4       | 6 8   | 6 6      | 2 20  | 25         | 10                |                               | Annunciation.—Lady day.            |                  |
| 26 W.                 | 6 4       | 6 8   | 5 48     | 3 5   | 26         | 11                |                               |                                    |                  |
| 27 Th.                | 6 3       | 6 8   | 5 29     | 3 47  | 27         | 12                |                               | Swedenborg died, 1772.             |                  |
| 28 Fr.                | 6 2       | 6 8   | 5 11     | 4 27  | 28         | 13                |                               | Sun's apprt. dec. North 2° 53' 43" |                  |
| 29 Sat.               | 6 1       | 6 8   | 4 53     | 5 6   | 29         | 14                |                               | Punjab annexed, 1848.              |                  |
| 30 S.                 | 6 0       | 6 8   | 4 34     | sets  | 3rd        | 15                |                               | 4th Sunday in Lent.                |                  |
| 31 M.                 | 6 0       | 6 8   | 4 16     | 6 51  | 2          | 5th               |                               | Siamese New Year PEE CHAW.         |                  |

# APRIL, 30 days.

**WEATHER.**—This is the hottest month of the year. The first part of it is commonly very dry, with Easterly and Southerly winds prevailing. About the middle of the month, the monsoon changes from the N. E. to the S. W. Showers become rather frequent, in the latter part of the month, and relieve somewhat the intense heat. But while the sun is very powerful during the day, the nights, especially in Bangkok, are generally of quite comfortable temperature. This month, being the time when the monsoon changes, is generally not as healthy for Europeans and Americans as the five months preceeding; and bowel complaints prevail. Dysentery is the most to be dreaded by Foreigners of all other diseases in Bangkok, at this time.

| <i>Day of Month<br/>and Week</i> | <b>Memoranda.</b> |
|----------------------------------|-------------------|
| 1 Tu.                            |                   |
| 2 W.                             |                   |
| 3 Th.                            |                   |
| 4 Fr.                            |                   |
| 5 Sat.                           |                   |
| 6 Su.                            |                   |
| 7 M.                             |                   |
| 8 Tu.                            |                   |
| 9 W.                             |                   |
| 10 Th.                           |                   |
| 11 Fr.                           |                   |
| 12 Sat.                          |                   |
| 13 Su.                           |                   |
| 14 M.                            |                   |
| 15 Tu.                           |                   |
| 16 W.                            |                   |
| 17 Th.                           |                   |
| 18 Fr.                           |                   |
| 19 Sat.                          |                   |
| 20 Su.                           |                   |
| 21 M.                            |                   |
| 22 Tu.                           |                   |
| 23 W.                            |                   |
| 24 Th.                           |                   |
| 25 Fr.                           |                   |
| 26 Sat.                          |                   |
| 27 Su.                           |                   |
| 28 M.                            |                   |
| 29 Tu.                           |                   |
| 30 W.                            |                   |



# APRIL, 30 days.

11

BANGKOK.

{ Mean Temperature, 86°-18.  
 { Extremes of ditto, 75—95.  
 { Average number of days on which rain falls, 9.

## MOON'S PHASES.

First Quarter 7 6 54 P.M. | Last Quarter 21 0 45 P.M. | Apogee 4 1 A.M.  
 Full Moon 14 9 44 P.M. | New Moon 29 6 9 A.M. | Perigee 15 6 A.M.

| Day of Month and Week | Sun Rises |    | Sun Sets |    | Clock Fast |    | Moon Rises & Sets. |    | Chin-ese Moon | Siam-ese Moon | NOTABLE DAYS &c.                    |
|-----------------------|-----------|----|----------|----|------------|----|--------------------|----|---------------|---------------|-------------------------------------|
|                       | H.        | M. | H.       | M. | M.         | S. | H.                 | M. | 3rd           | 5th           |                                     |
| 1 Tu.                 | 5         | 59 | 6        | 9  | 3          | 58 | 7                  | 40 | 3             | 2             | Day's length 12h. 10m.              |
| 2 W.                  | 5         | 59 | 6        | 9  | 3          | 40 | 8                  | 29 | 4             | 3             | Thomas Jefferson born, 1743.        |
| 3 Th.                 | 5         | 58 | 6        | 9  | 3          | 22 | 9                  | 19 | 5             | 4             | Sun's apprt. dec. North 5° 13' 4"   |
| 4 Fr.                 | 5         | 57 | 6        | 9  | 3          | 4  | 10                 | 8  | 6             | 5             | William H. Harrison died, 1841.     |
| 5 Sat.                | 5         | 57 | 6        | 9  | 2          | 46 | 10                 | 57 | 7             | 6             | Seringapatam invested, 1799.        |
| 6 S.                  | 5         | 56 | 6        | 9  | 2          | 29 | 11                 | 45 | 8             | 7             | 5th Sunday in Lent.                 |
| 7 M.                  | 5         | 55 | 6        | 9  | 2          | 11 | morn               |    | 9             | 8*            | Prince Leopold, born, 1858.         |
| 8 Tu.                 | 5         | 55 | 6        | 9  | 1          | 54 | 0                  | 31 | 10            | 9             | Day's length 12h. 14m.              |
| 9 W.                  | 5         | 54 | 6        | 9  | 1          | 37 | 1                  | 16 | 11            | 10            | Sun's apprt. dec. North 7° 29' 9"   |
| 10 Th.                | 5         | 53 | 6        | 9  | 1          | 21 | 1                  | 59 | 12            | 11            |                                     |
| 11 Fr.                | 5         | 53 | 6        | 9  | 1          | 4  | 2                  | 41 | 13            | 12            | Abdication of Napoleon, 1814.       |
| 12 Sat.               | 5         | 52 | 6        | 10 | 0          | 48 | 3                  | 29 | 14            | 13            | Fort Sumter bombarded, 1861.        |
| 13 S.                 | 5         | 51 | 6        | 10 | 0          | 32 | 4                  | 8  | 15            | 14            | Palm Sunday.                        |
| 14 M.                 | 5         | 50 | 6        | 10 | 0          | 17 | 4                  | 53 | 16            | 15*           | Battle of Toulouse, 1814.           |
| 15 Tu.                | 5         | 50 | 6        | 10 | 0          | 2  | rises              |    | 17            | 1             | Sun's apprt. dec. North 9° 40' 48"  |
| 16 W.                 | 5         | 50 | 6        | 10 | 0          | 13 | 8                  | 22 | 18            | 2             | Battle of Culloden, 1746.           |
| 17 Th.                | 5         | 49 | 6        | 10 | 0          | 27 | 9                  | 26 | 19            | 3             | Day's length 12h. 21m.              |
| 18 Fr.                | 5         | 48 | 6        | 10 | 0          | 41 | 10                 | 28 | 20            | 4             | Good Friday.                        |
| 19 Sat.               | 5         | 48 | 6        | 10 | 0          | 55 | 11                 | 25 | 21            | 5             |                                     |
| 20 S.                 | 5         | 47 | 6        | 11 | 1          | 8  | morn.              |    | 22            | 6             | Ester Sunday.                       |
| 21 M.                 | 5         | 47 | 6        | 11 | 1          | 21 | 0                  | 17 | 23            | 7             |                                     |
| 22 Tu.                | 5         | 46 | 6        | 11 | 1          | 33 | 1                  | 3  | 24            | 8*            | Sun's apprt. dec. North 12° 6' 39"  |
| 23 W.                 | 5         | 46 | 6        | 11 | 1          | 45 | 1                  | 46 | 25            | 9             | St. George.                         |
| 24 Th.                | 5         | 45 | 6        | 11 | 1          | 57 | 2                  | 27 | 26            | 10            | Shakspeare born, 1564.              |
| 25 Fr.                | 5         | 45 | 6        | 11 | 2          | 7  | 3                  | 5  | 27            | 11            | Missolonghi taken, 1826.            |
| 26 Sat.               | 5         | 44 | 6        | 12 | 2          | 18 | 3                  | 43 | 28            | 12            | Princess Alice born, 1843.          |
| 27 S.                 | 5         | 44 | 6        | 12 | 2          | 28 | 4                  | 24 | 29            | 13            | Low Sunday.                         |
| 28 M.                 | 5         | 43 | 6        | 12 | 2          | 37 | 5                  | 3  | 30            | 14*           | Battle of Bennington, 1777.         |
| 29 Tu.                | 5         | 42 | 6        | 12 | 2          | 46 | sets               |    | 4th           | 6th           | Washington inaugurated, 1789.       |
| 30 W.                 | 5         | 42 | 6        | 12 | 2          | 54 | 7                  | 13 | 2             | 2             | Sun's apprt. dec. North 14° 31' 37" |

# MAY, 31 days.

**WEATHER.**—This is one of the wettest months of the year.—July and Sept. sometime exceed it in this respect. There are very seldom any entire rainy days; and much of the day on which rain falls, is quite pleasant. The showers are frequent, and very copious, with intervals of 1, 2, or more days of fine weather. This is the time for beginning to break up the prairie ground for sowing and planting rice. In the former part of it, the Chief Minister of the Agricultural department has a day devoted to him in honor of the commencement of seed time, which is called "*Wan tam tak*". In the preceding reigns (not however in the present,) he was allowed to sieze and appropriate to himself, merchandise exposed for sale in the shops.

*Day of Month  
and Week*

## Memoranda.

|    |            |
|----|------------|
| 1  | Th.        |
| 2  | Fr.        |
| 3  | Sat.       |
| 4  | <i>Su.</i> |
| 5  | M.         |
| 6  | Tu.        |
| 7  | W.         |
| 8  | Th.        |
| 9  | Fr.        |
| 10 | Sat.       |
| 11 | <i>Su.</i> |
| 12 | M.         |
| 13 | Tu.        |
| 14 | W.         |
| 15 | Th.        |
| 16 | Fr.        |
| 17 | Sat.       |
| 18 | <i>Su.</i> |
| 19 | M.         |
| 20 | Tu.        |
| 21 | W.         |
| 22 | Th.        |
| 23 | Fr.        |
| 24 | Sat.       |
| 25 | <i>Su.</i> |
| 26 | M.         |
| 27 | Tu.        |
| 28 | W.         |
| 29 | Th.        |
| 30 | Fr.        |
| 31 | Sat.       |



# MAY, 31 days.

13

BANGKOK.

{ Mean temperature 84.80.  
 { Extremes of ditto 76—94.  
 { Average number of days on which rain falls 17.

## MOON'S PHASES.

|               |              |              |               |         |           |
|---------------|--------------|--------------|---------------|---------|-----------|
|               | d. h. m.     |              | d. h. m.      |         | d. h.     |
| First Quarter | 7 10 6 A.M.  | Last Quarter | 20 10 21 P.M. | Apogee  | 1 2 P.M.  |
| Full Moon     | 14 5 42 A.M. | New Moon     | 28 10 8 P.M.  | Perigee | 14 3 P.M. |
|               |              |              |               | Apogee  | 28 4 P.M. |

| Day of Month and Week | Sun Rises |       | Sun Sets |       | Clock Slow |     | Moon Rises & Sets |     | Chin-ese Moon                       | Siam-ese Moon | NOTABLE DAYS &c. |
|-----------------------|-----------|-------|----------|-------|------------|-----|-------------------|-----|-------------------------------------|---------------|------------------|
|                       | H. M.     | H. M. | M. S.    | H. M. | H. M.      | 4th | 6th               |     |                                     |               |                  |
| 1 Th.                 | 5 42      | 6 12  | 3 2      | 8 14  | 3          | 3   | 3                 | 3   | Prince Arthur born, 1850.           |               |                  |
| 2 Fr.                 | 5 42      | 6 12  | 3 9      | 8 53  | 4          | 4   | 4                 | 4   | Day's length 12h. 30m.              |               |                  |
| 3 Sat.                | 5 41      | 6 13  | 3 16     | 9 41  | 5          | 5   | 5                 | 5   |                                     |               |                  |
| 4 S.                  | 5 41      | 6 13  | 3 22     | 10 27 | 6          | 6   | 6                 | 6   | 2nd Sunday after Easter.            |               |                  |
| 5 M.                  | 5 41      | 6 13  | 3 28     | 11 10 | 7          | 7   | 7                 | 7   | Bonaparte died, 1821.               |               |                  |
| 6 Tu.                 | 5 40      | 6 13  | 3 33     | 11 54 | 8          | 8*  | 8                 | 8*  | Sun's apprt. dec. North 16° 27' 50" |               |                  |
| 7 W.                  | 5 39      | 6 13  | 3 37     | morn  | 9          | 9   | 9                 | 9   | Savings Bank erected in Eng. 1785.  |               |                  |
| 8 Th.                 | 5 39      | 6 13  | 3 41     | 0 36  | 10         | 10  | 10                | 10  |                                     |               |                  |
| 9 Fr.                 | 5 39      | 6 13  | 3 45     | 1 16  | 11         | 11  | 11                | 11  | Day's length 12h. 34m.              |               |                  |
| 10 Sat.               | 5 38      | 6 14  | 3 48     | 1 58  | 12         | 12  | 12                | 12  | Mutiny at Meerut, 1857.             |               |                  |
| 11 S.                 | 5 38      | 6 14  | 3 50     | 2 42  | 13         | 13  | 13                | 13  | 3rd Sunday after Easter.            |               |                  |
| 12 M.                 | 5 37      | 6 15  | 3 52     | 3 28  | 14         | 14  | 14                | 14  | Battle of Palo Alto, 1846.          |               |                  |
| 13 Tu.                | 5 37      | 6 15  | 3 53     | 4 19  | 15         | 15* | 15                | 15* | Cession of Surat, 1800.             |               |                  |
| 14 W.                 | 5 37      | 6 15  | 3 54     | rises | 16         | 1   | 16                | 1   | Sun's apprt. dec. North 18° 33' 58" |               |                  |
| 15 Th.                | 5 36      | 6 16  | 3 54     | 8 11  | 17         | 2   | 17                | 2   |                                     |               |                  |
| 16 Fr.                | 5 36      | 6 16  | 3 53     | 9 12  | 18         | 3   | 18                | 3   | Day's length 12h. 40m.              |               |                  |
| 17 Sat.               | 5 36      | 6 16  | 3 52     | 10 9  | 19         | 4   | 19                | 4   | Revolution in Venice, 1797.         |               |                  |
| 18 S.                 | 5 36      | 6 16  | 3 50     | 10 59 | 20         | 5   | 20                | 5   | 4th Sunday after Easter.            |               |                  |
| 19 M.                 | 5 35      | 6 17  | 3 48     | 11 40 | 21         | 6   | 21                | 6   | Anne Boleyn beheaded, 1536.         |               |                  |
| 20 Tu.                | 5 35      | 6 17  | 3 45     | morn  | 22         | 7   | 22                | 7   | Columbus died, 1506.                |               |                  |
| 21 W.                 | 5 35      | 6 17  | 3 42     | 0 27  | 23         | 8*  | 23                | 8*  | Napoleon defeated at Acre, 1799.    |               |                  |
| 22 Th.                | 5 35      | 6 17  | 3 38     | 1 7   | 24         | 9   | 24                | 9   | Sun's apprt. dec. North 20° 20' 10" |               |                  |
| 23 Fr.                | 5 35      | 6 18  | 3 34     | 1 44  | 25         | 10  | 25                | 10  | Day's length 12h. 43m.              |               |                  |
| 24 Sat.               | 5 35      | 6 18  | 3 28     | 2 23  | 26         | 11  | 26                | 11  | Queen Victoria born, 1819.          |               |                  |
| 25 S.                 | 5 35      | 6 19  | 3 23     | 3 3   | 27         | 12  | 27                | 12  | Rogation Sunday.                    |               |                  |
| 26 M.                 | 5 35      | 6 19  | 3 17     | 3 43  | 28         | 13  | 28                | 13  |                                     |               |                  |
| 27 Tu.                | 5 35      | 6 19  | 2 10     | 4 25  | 29         | 14  | 29                | 14  | King of Hanover born, 1819.         |               |                  |
| 28 W.                 | 5 34      | 6 20  | 3 3      | 5 11  | 5th        | 15* | 28                | 15* | Noah Webster died, 1848.            |               |                  |
| 29 Th.                | 5 34      | 6 20  | 2 56     | sets  | 2          | 7th | 29                | 7th | Ascension day—Holy Thursday.        |               |                  |
| 30 Fr.                | 5 34      | 6 20  | 2 48     | 7 48  | 3          | 2   | 30                | 2   | Sun's apprt. dec. North 21° 44' 12" |               |                  |
| 31 Sat.               | 5 34      | 6 20  | 2 39     | 8 25  | 4          | 3   | 31                | 3   | Day's length 12h. 46m.              |               |                  |

# JUNE, 30 days.

**WEATHER.**—The wind varies little from S.W. though occasionally it veers to the W. and more frequently to the S. Rain usually falls abundantly, especially in the former part of the month, chiefly in grand showers with rarely a rainy day as such. Foreigners residing or traveling in or near the jungles, away from all tidal influence, should, if they would preserve their health, anticipate this wet season as early as the beginning of May, and retreat to the open prairies; or what is better to Bangkok; than which a more healthy city cannot be found in all the tropics. Billious remittent and intermittent fevers prevail in the jungles during this season, and are fearful in their influence upon all who are not thoroughly acclimated to the jungles.

*Day of Month  
and Week.*

## Memoranda.

1 *Su.*  
2 *M.*  
3 *Tu.*  
4 *W.*  
5 *Th.*  
6 *Fr.*  
7 *Sat.*  
8 *Su.*  
9 *M.*  
10 *Tu.*  
11 *W.*  
12 *Th.*  
13 *Fr.*  
14 *Sat.*  
15 *Su.*  
16 *M.*  
17 *Tu.*  
18 *W.*  
19 *Th.*  
20 *Fr.*  
21 *Sat.*  
22 *Su.*  
23 *M.*  
24 *Tu.*  
25 *W.*  
26 *Th.*  
27 *Fr.*  
28 *Sat.*  
29 *Su.*  
30 *M.*

# JUNE, 30 days.

**BANGKOK.**

} Mean Temperature, 83° 35.  
 } Extremes of ditto, 77—92.  
 } Average number of days on which rain falls, 18.

**MOON'S PHASES.**

|               |           |           |           |      |              |           |           |    |           |           |    |    |      |
|---------------|-----------|-----------|-----------|------|--------------|-----------|-----------|----|-----------|-----------|----|----|------|
|               | <i>d.</i> | <i>h.</i> | <i>m.</i> |      | <i>d.</i>    | <i>h.</i> | <i>m.</i> |    | <i>d.</i> | <i>h.</i> |    |    |      |
| First Quarter | 5         | 9         | 25        | P.M. | Last Quarter | 19        | 9         | 54 | A.M.      | Perigee   | 12 | 1  | A.M. |
| Full Moon     | 12        | 0         | 59        | P.M. | New Moon     | 27        | 1         | 36 | P.M.      | Apogee    | 24 | 10 | P.M. |

| Day of Month and Week | Sun Rises |    | Sun Sets |    | Clock Slow |    | Moon Rises & Sets. |    | Chin-ese Moon | Siam-ese Moon | NOTABLE DAYS &c.                      |
|-----------------------|-----------|----|----------|----|------------|----|--------------------|----|---------------|---------------|---------------------------------------|
|                       | H.        | M. | H.       | M. | M.         | S. | H.                 | M. | 5th           | 7th           |                                       |
| 1 S.                  | 5         | 35 | 6        | 21 | 2          | 31 | 9                  | 9  | 5             | 4             | <i>Sunday after Ascension.</i>        |
| 2 M.                  | 5         | 35 | 6        | 21 | 2          | 21 | 9                  | 52 | 6             | 5             |                                       |
| 3 Tu.                 | 5         | 35 | 6        | 21 | 2          | 12 | 10                 | 33 | 7             | 6             | Sun's apprt. dec. North 22° 17' 16"   |
| 4 W.                  | 5         | 35 | 6        | 21 | 2          | 2  | 11                 | 14 | 8             | 7             | Leopold elected king of Belgium 1835. |
| 5 Th.                 | 5         | 35 | 6        | 22 | 1          | 52 | 11                 | 54 | 9             | 8*            | Day's length 12h. 47m.                |
| 6 Fr.                 | 5         | 35 | 6        | 22 | 1          | 41 | morn               |    | 10            | 9             | General Gaines died, 1849.            |
| 7 Sat.                | 5         | 35 | 6        | 23 | 1          | 30 | 0                  | 35 | 11            | 10            |                                       |
| 8 S.                  | 5         | 35 | 6        | 23 | 1          | 19 | 1                  | 18 | 12            | 11            | <i>Pentecost—Whit Sunday.</i>         |
| 9 M.                  | 5         | 35 | 6        | 23 | 1          | 8  | 2                  | 6  | 13            | 12            |                                       |
| 10 Tu.                | 5         | 35 | 6        | 23 | 0          | 56 | 2                  | 58 | 14            | 13            | Sun's apprt. dec. North 23° 0' 7"     |
| 11 W.                 | 5         | 35 | 6        | 23 | 0          | 44 | 3                  | 56 | 15            | 14            | Plague at Smyrna, 1837.               |
| 12 Th.                | 5         | 36 | 6        | 24 | 0          | 32 | 4                  | 59 | 16            | 15*           | New York City incorporated, 1665.     |
| 13 Fr.                | 5         | 36 | 6        | 24 | 0          | 20 | rises              |    | 17            | 1             | Day's length 12h. 48m.                |
| 14 Sat.               | 5         | 36 | 6        | 24 | 0          | 8  | 8                  | 47 | 18            | 2             | James K. Polk died, 1849.             |
| 15 S.                 | 5         | 36 | 6        | 24 | 0          | 5  | 9                  | 47 | 19            | 3             | <i>Trinity Sunday.</i>                |
| 16 M.                 | 5         | 36 | 6        | 25 | 0          | 17 | 10                 | 22 | 20            | 4             | Day's length 12h. 49m.                |
| 17 Tu.                | 5         | 37 | 6        | 25 | 0          | 30 | 11                 | 3  | 21            | 5             | Sun's apprt. dec. North 23° 23' 11"   |
| 18 W.                 | 5         | 37 | 6        | 25 | 0          | 43 | 11                 | 43 | 22            | 6             | Battle of Waterloo, 1815.             |
| 19 Th.                | 5         | 37 | 6        | 26 | 0          | 56 | morn.              |    | 23            | 7             | Magna Charta, 1215.                   |
| 20 Fr.                | 5         | 37 | 6        | 26 | 1          | 9  | 0                  | 22 | 24            | 8*            | Accession of Queen Victoria.          |
| 21 Sat.               | 5         | 37 | 6        | 26 | 1          | 22 | 1                  | 1  | 25            | 9             | Proclamation of Queen Victoria.       |
| 22 S.                 | 5         | 37 | 6        | 26 | 1          | 35 | 1                  | 42 | 26            | 10            | <i>1st Sunday after Trinity.</i>      |
| 23 M.                 | 5         | 37 | 6        | 27 | 1          | 48 | 2                  | 24 | 27            | 11            | Day's length 12h. 50m.                |
| 24 Tu.                | 5         | 37 | 6        | 27 | 2          | 1  | 3                  | 9  | 28            | 12            | St. John Baptist—Midsummer day.       |
| 25 W.                 | 5         | 38 | 6        | 27 | 2          | 14 | 3                  | 57 | 29            | 13            | Sun's apprt. dec. North 23° 24' 49"   |
| 26 Th.                | 5         | 38 | 6        | 27 | 2          | 27 | 4                  | 46 | 30            | 14*           | Cromwell protector, 1657.             |
| 27 Fr.                | 5         | 39 | 6        | 27 | 2          | 39 | sets               |    | 6th           | 8th           |                                       |
| 28 Sat.               | 5         | 39 | 6        | 27 | 2          | 52 | 7                  | 8  | 2             | 2             | Coronation of Queen Victoria.         |
| 29 S.                 | 5         | 39 | 6        | 27 | 3          | 4  | 7                  | 52 | 3             | 3             | <i>2nd Sunday after Trinity.</i>      |
| 30 M.                 | 5         | 39 | 6        | 27 | 3          | 16 | 8                  | 34 | 4             | 4             |                                       |

# JULY, 31 days.

**WEATHER.**—The breezes continue to come from points intermediate to South, and West, and are mild and cheering. Much more rain usually falls this month than in June, and a little less than in May. Sometimes quite a drought occurs near its close, and continues into August, endangering the newly planted Rice. But should it be cut off, there is still good hope left of another month or two of seed-time, ere the season closes. There are but few days of oppressive weather, and even then the thermometer does not indicate very high temperature. Pleasant weather is the rule, and unpleasant the exception. It is generally a time of good health to the citizens of Bangkok, and to all throughout the open plains of Siam.

| <i>Day of Month<br/>and Week</i> | <b>Memoranda.</b> |
|----------------------------------|-------------------|
| 1 Tu.                            |                   |
| 2 W.                             |                   |
| 3 Th.                            |                   |
| 4 Fr.                            |                   |
| 5 Sat.                           |                   |
| 6 Su.                            |                   |
| 7 M.                             |                   |
| 8 Tu.                            |                   |
| 9 W.                             |                   |
| 10 Th.                           |                   |
| 11 Fr.                           |                   |
| 12 Sat.                          |                   |
| 13 Su.                           |                   |
| 14 M.                            |                   |
| 15 Tu.                           |                   |
| 16 W.                            |                   |
| 17 Th.                           |                   |
| 18 Fr.                           |                   |
| 19 Sat.                          |                   |
| 20 Su.                           |                   |
| 21 M.                            |                   |
| 22 Tu.                           |                   |
| 23 W.                            |                   |
| 24 Th.                           |                   |
| 25 Fr.                           |                   |
| 26 Sat.                          |                   |
| 27 Su.                           |                   |
| 28 M.                            |                   |
| 29 Tu.                           |                   |
| 30 W.                            |                   |
| 31 Th.                           |                   |

# JULY, 31 days.

BANGKOK. } Mean Temperature, 82-55.  
 Extremes of ditto, 78-91.  
 Average number of days on which rain falls, 19.

## MOON'S PHASES.

*d. h. m.*
*d. h. m.*
*d. h.*  
 First Quarter 5 5 32 A.M. | Last Quarter 18 11 55 P.M. | Perigee 10 8 A.M.  
 Full Moon 11 8 20 P.M. | New Moon 27 3 47 A.M. | Apogee 22 11 A.M.

| Day of<br>Month and<br>Week | Sun<br>Rises |    | Sun Sets |    | Clock<br>Past |    | Moon<br>Rises &<br>Sets. |    | Chin-<br>ese<br>Moon | Siam<br>ese<br>Moon | NOTABLE DAYS &c.                      |
|-----------------------------|--------------|----|----------|----|---------------|----|--------------------------|----|----------------------|---------------------|---------------------------------------|
|                             | H.           | M. | H.       | M. | M.            | S. | H.                       | M. | 6th                  | 8th                 |                                       |
| 1 Tu.                       | 5            | 40 | 6        | 28 | 3             | 28 | 9                        | 14 | 5                    | 5                   | Sun's apprt. dec. North 28° 8' 45"    |
| 2 W.                        | 5            | 40 | 6        | 28 | 3             | 39 | 9                        | 54 | 6                    | 6                   | Sir Robert Peel died, 1850.           |
| 3 Th.                       | 5            | 40 | 6        | 28 | 3             | 51 | 10                       | 34 | 7                    | 7                   | Day's length 12h. 48m.                |
| 4 Fr.                       | 5            | 40 | 6        | 28 | 4             | 2  | 11                       | 15 | 8                    | 8*                  | Independence of U.S. declared, 1776.  |
| 5 Sat.                      | 5            | 40 | 6        | 28 | 4             | 12 | 11                       | 59 | 9                    | 9                   | Battle of Chippewa, 1814.             |
| 6 S.                        | 5            | 41 | 6        | 28 | 4             | 22 | morn                     |    | 10                   | 10                  | 3rd Sunday after Trinity.             |
| 7 M.                        | 5            | 41 | 6        | 28 | 4             | 32 | 0                        | 49 | 11                   | 11                  | Thomas A. Becket murdered.            |
| 8 Tu.                       | 5            | 42 | 6        | 28 | 4             | 42 | 1                        | 41 | 12                   | 12                  | Sun's apprt. dec. North 22° 31' 38"   |
| 9 W.                        | 5            | 42 | 6        | 28 | 4             | 51 | 2                        | 41 | 13                   | 13                  | Capture of Bourbon, 1810.             |
| 10 Th.                      | 5            | 42 | 6        | 28 | 5             | 0  | 3                        | 44 | 14                   | 14                  | Day's length 12h. 46m.                |
| 11 Fr.                      | 5            | 42 | 6        | 28 | 5             | 8  | rises                    |    | 15                   | 15*                 | Hamilton shot, 1804.                  |
| 12 Sat.                     | 5            | 42 | 6        | 28 | 5             | 16 | 7                        | 25 | 16                   | 1                   | Printing Liscensed, 1799.             |
| 13 S.                       | 5            | 42 | 6        | 28 | 5             | 23 | 8                        | 13 | 17                   | 2                   | 4th Sunday after Trinity.             |
| 14 M.                       | 5            | 43 | 6        | 28 | 5             | 30 | 8                        | 57 | 18                   | 3                   | Bastille destroyed, 1789.             |
| 15 Tu.                      | 5            | 43 | 6        | 28 | 5             | 36 | 9                        | 39 | 19                   | 4                   | Sun's apprt. dec. North 21° 35' 18"   |
| 16 W.                       | 5            | 44 | 6        | 28 | 5             | 42 | 10                       | 18 | 20                   | 5                   | Hegeira (flight of Mohammed) 622.     |
| 17 Th.                      | 5            | 44 | 6        | 28 | 5             | 48 | 10                       | 59 | 21                   | 6                   | Battle of Warsaw, 1659.               |
| 18 Fr.                      | 5            | 44 | 6        | 28 | 5             | 53 | 11                       | 40 | 22                   | 7                   | Petrarch died, 1474.                  |
| 19 Sat.                     | 5            | 44 | 6        | 28 | 5             | 57 | morn.                    |    | 23                   | 8*                  | Day's length 12h. 44m.                |
| 20 S.                       | 5            | 44 | 6        | 28 | 6             | 1  | 0                        | 20 | 24                   | 9                   | 5th Sunday after Trinity.             |
| 21 M.                       | 5            | 45 | 6        | 27 | 6             | 4  | 1                        | 6  | 25                   | 10                  | Battle of Bull's Run, 1861.           |
| 22 Tu.                      | 5            | 45 | 6        | 27 | 6             | 7  | 1                        | 52 | 26                   | 11                  | Sun's apprt. dec. North 20° 21' 15"   |
| 23 W.                       | 5            | 45 | 6        | 27 | 6             | 9  | 2                        | 40 | 27                   | 12                  | Gibraltar taken, 1704.                |
| 24 Th.                      | 5            | 45 | 6        | 27 | 6             | 11 | 3                        | 30 | 28                   | 13                  | Day's length 12h. 42m.                |
| 25 Fr.                      | 5            | 45 | 6        | 27 | 6             | 12 | 4                        | 22 | 29                   | 14                  | Natives of India on Petit Jury, 1828. |
| 26 Sat.                     | 5            | 46 | 6        | 26 | 6             | 13 | 5                        | 14 | 30                   | 15*                 |                                       |
| 27 S.                       | 5            | 46 | 6        | 26 | 6             | 13 | sets                     |    | 7th                  | 9th                 | 6th Sunday after Trinity.             |
| 28 M.                       | 5            | 46 | 6        | 26 | 6             | 12 | 7                        | 14 | 2                    | 2                   | Battle of Pyrenees, 1818.             |
| 29 Tu.                      | 5            | 46 | 6        | 26 | 6             | 11 | 7                        | 55 | 3                    | 3                   | Sun's apprt. dec. North 18° 50' 17"   |
| 30 W.                       | 5            | 47 | 6        | 25 | 6             | 9  | 8                        | 35 | 4                    | 4                   | Spanish Armada destroyed, 1588.       |
| 31 Th.                      | 5            | 47 | 6        | 25 | 6             | 7  | 9                        | 16 | 5                    | 5                   |                                       |

# AUGUST, 31 days.

**WEATHER.**—The meteorological phenomena for this month differ but little from those of the last. A part of the month is not unfrequently, rather dry, which excites some anxiety in the minds of all, more especially of Rice producers and Exporting Merchants, for the coming harvest. But the merciful Lord over all seldom fails to send the early, middle, and latter rain to save the Rice crop, and by it to provide abundantly, and of the best nutriment, for the sustenance of many millions of his ungrateful dependents in Siam and other countries. The year 1859 was remarkable for the little rain that fell in the months of May, June July, and August, and consequently the main hope of a Rice crop was from seed sown in September.

*Day of Month  
and Week*

## Memoranda.

1 Fr.  
2 Sat.  
3 *Sat.*  
4 M.  
5 Tu.  
6 W.  
7 Th.  
8 Fr.  
9 Sat.  
10 *Su.*  
11 M.  
12 Tu.  
13 W.  
14 Th.  
15 Fr.  
16 Sat.  
17 *Su.*  
18 M.  
19 Tu  
20 W.  
21 Th.  
22 Fr.  
23 Sat.  
24 *Su.*  
25 M.  
26 Tu.  
27 W.  
28 Th.  
29 Fr.  
30 Sat.  
31 *Su.*

# AUGUST, 31 days.

BANGKOK.

{ Mean temperature 82.43.  
 { Extremes of ditto 76—91.  
 { Average number of days on which rain falls 17.

### MOON'S PHASES.

|                            |                           |                  |
|----------------------------|---------------------------|------------------|
| <i>d. h. m.</i>            | <i>d. h. m.</i>           | <i>d. h.</i>     |
| First Quarter 3 11 39 A.M. | Last Quarter 17 9 29 P.M. | Perigee 7 7 A.M. |
| Full Moon 10 4 35 A.M.     | New Moon 25 4 22 P.M.     | Apogee 19 5 A.M. |

| Day of Month and Week | Sun Rises |       | Sun Sets |       | Clock Fast | Moon Rises & Sets | Chin-see Moon | Siam-see Moon                        | NOTABLE DAYS &c. |
|-----------------------|-----------|-------|----------|-------|------------|-------------------|---------------|--------------------------------------|------------------|
|                       | H. M.     | H. M. | M. S.    | H. M. |            | 7th               | 9th           |                                      |                  |
| 1 Fr.                 | 5 47      | 6 25  | 6 3      | 9 59  |            | 6                 | 6             | Slavery abolished in W. Indies 1840. |                  |
| 2 Sat.                | 5 48      | 6 24  | 6 0      | 10 44 |            | 7                 | 7             | Mehemet Ali died, 1838.              |                  |
| 3 S.                  | 5 48      | 6 24  | 5 55     | 11 34 |            | 8                 | 8*            | 7th Sunday after Trinity.            |                  |
| 4 M.                  | 5 49      | 6 23  | 5 50     | morn  |            | 9                 | 9             | British troops landed in Java, 1811. |                  |
| 5 Tu.                 | 5 49      | 6 23  | 5 45     | 0 30  |            | 10                | 10            | Prince Alfred born, 1844.            |                  |
| 6 W.                  | 5 49      | 6 22  | 5 39     | 1 30  |            | 11                | 11            | Sun's apprt. dec. North 16° 47' 52"  |                  |
| 7 Th.                 | 5 49      | 6 22  | 5 32     | 2 33  |            | 12                | 12            | Day's length 12h. 33m.               |                  |
| 8 Fr.                 | 5 49      | 6 21  | 5 24     | 3 36  |            | 13                | 13            | Batavia taken, 1811.                 |                  |
| 9 Sat.                | 5 49      | 6 21  | 5 16     | 4 39  |            | 14                | 14            | Banda taken, 1810.                   |                  |
| 10 S.                 | 5 49      | 6 21  | 5 8      | rises |            | 15                | 15*           | 8th Sunday after Trinity.            |                  |
| 11 M.                 | 5 50      | 6 20  | 4 59     | 7 40  |            | 16                | 1             | Barbadoes destroyed, 1831.           |                  |
| 12 Tu.                | 5 50      | 6 20  | 4 49     | 8 13  |            | 17                | 2             | Settlement of Pinang, 1786.          |                  |
| 13 W.                 | 5 50      | 6 20  | 4 39     | 8 54  |            | 18                | 3             | Sun's apprt. dec. North 14° 46' 28"  |                  |
| 14 Th.                | 5 50      | 6 19  | 4 28     | 9 33  |            | 19                | 4             | Thomas Sheridan died, 1788.          |                  |
| 15 Fr.                | 5 50      | 6 18  | 4 17     | 10 16 |            | 20                | 5             | Battle of Camden, 1780.              |                  |
| 16 Sat.               | 5 50      | 6 18  | 4 5      | 11 0  |            | 21                | 6             | Manchester Massacre, 1819.           |                  |
| 17 S.                 | 5 51      | 6 17  | 3 52     | 11 46 |            | 22                | 7             | 9th Sunday after Trinity.            |                  |
| 18 M.                 | 5 51      | 6 17  | 3 40     | morn  |            | 23                | 8*            |                                      |                  |
| 19 Tu.                | 5 51      | 6 16  | 3 26     | 0 34  |            | 24                | 9             | Day's length 12h. 25m.               |                  |
| 20 W.                 | 5 51      | 6 15  | 3 12     | 1 24  |            | 25                | 10            | Battle of Churubusco, 1848.          |                  |
| 21 Th.                | 5 51      | 6 15  | 2 58     | 2 14  |            | 26                | 11            | Sun's apprt. dec. North 12° 18' 36"  |                  |
| 22 Fr.                | 5 51      | 6 14  | 2 44     | 3 5   |            | 27                | 12            | Battle of Bosworth, 1485.            |                  |
| 23 Sat.               | 5 51      | 6 13  | 2 28     | 3 58  |            | 28                | 13            | American war declared, 1775.         |                  |
| 24 S.                 | 5 51      | 6 13  | 2 13     | 4 49  |            | 29                | 14*           | 10th Sunday after Trinity.           |                  |
| 25 M.                 | 5 51      | 6 12  | 1 57     | sets  |            | 8th               | 10            | Day's length 12h. 21m.               |                  |
| 26 Tu.                | 5 51      | 6 12  | 1 41     | 6 33  |            | 2                 | 2             | Birth of Prince Albert, 1819.        |                  |
| 27 W.                 | 5 51      | 6 11  | 1 24     | 7 15  |            | 3                 | 3             | Peace with China, 1842.              |                  |
| 28 Th.                | 5 51      | 6 11  | 1 7      | 7 58  |            | 4                 | 4             | Sun's apprt. dec. North 9° 49' 31"   |                  |
| 29 Fr.                | 5 51      | 6 10  | 0 49     | 8 44  |            | 5                 | 5             | Sir James Napier died, 1853.         |                  |
| 30 Sat.               | 5 51      | 6 9   | 0 31     | 9 33  |            | 6                 | 6             |                                      |                  |
| 31 S.                 | 5 51      | 6 9   | 0 13     | 10 26 |            | 7                 | 7             | 11th Sunday after Trinity.           |                  |

**SEPTEMBER, 30 days.**

**WEATHER.**—This month is almost always a little more rainy than any other in the year. It is nearly matched in this respect by May and July. The first ten or twelve days are liable to be dry: in the years 1857, and 1858 they were alarmingly so. The breezes nearly all come from the W. S. W., N. W., and S. This season for Typhoons in the China Sea, finds no sympathy in all Southern Siam. Indeed it is a remarkable fact that destructive hurricanes are of the rarest occurrence, even in the Northern parts. Although this be a wet month, it is interspersed with much pleasant weather. If the Rice planted either in May or June be all cut off by drought, a good crop may be looked for, if the rain be abundant this month.

*Day of Month  
and Week.*

**Memoranda.**

1 M.  
 2 Tu.  
 3 W.  
 4 Th.  
 5 Fr.  
 6 Sat.  
 7 Su.  
 8 M.  
 9 Tu.  
 10 W.  
 11 Th.  
 12 Fr.  
 13 Sat.  
 14 Su.  
 15 M.  
 16 Tu.  
 17 W.  
 18 Th.  
 19 Fr.  
 20 Sat.  
 21 Su.  
 22 M.  
 23 Tu.  
 24 W.  
 25 Th.  
 26 Fr.  
 27 Sat.  
 28 Su.  
 29 M.  
 30 Tu.



# SEPTEMBER, 30 days.

21

BANGKOK.

{ Mean Temperature, 82-10.  
 { Extremes of ditto, 75-91.  
 { Average number of days on which rain falls, 17.

## MOON'S PHASES.

|               |                 |               |                 |         |              |
|---------------|-----------------|---------------|-----------------|---------|--------------|
|               | <i>d. h. m.</i> |               | <i>d. h. m.</i> |         | <i>d. h.</i> |
| First Quarter | 1 4 59 P.M.     | New Moon      | 24 3 39 A.M.    | Perigee | 2 10 P.M.    |
| Full Moon     | 8 2 40 P.M.     | First Quarter | 30 10 52 P.M.   | Apogee  | 15 11 P.M.   |
| Last Quarter  | 16 11 4 A.M.    |               |                 | Perigee | 28 2 A.M.    |

| <i>Day of Month and Week</i> | <i>Sun Rises</i> |       | <i>Sun Sets</i> |       | <i>Clock Slow</i> |      | <i>Moon Rises &amp; Sets.</i>      |  | <i>Chin-ese Moon</i> | <i>Siam-ese Moon</i> | NOTABLE DAYS &c. |
|------------------------------|------------------|-------|-----------------|-------|-------------------|------|------------------------------------|--|----------------------|----------------------|------------------|
|                              | H. M.            | H. M. | M. S.           | H. M. | 8th               | 10th |                                    |  |                      |                      |                  |
| 1 M.                         | 5 52             | 6 8   | 0 6             | 11 24 | 8                 | 8*   | Day's length 12h. 16m.             |  |                      |                      |                  |
| 2 Tu.                        | 5 52             | 6 7   | 0 25            | morn  | 9                 | 9    |                                    |  |                      |                      |                  |
| 3 W.                         | 5 52             | 6 6   | 0 44            | 0 24  | 10                | 10   | Oliver Cromwell died, 1658.        |  |                      |                      |                  |
| 4 Th.                        | 5 52             | 6 6   | 1 3             | 1 25  | 11                | 11   | Sun's apprt. dec. North 7° 17' 50" |  |                      |                      |                  |
| 5 Fr.                        | 5 52             | 6 5   | 1 23            | 2 28  | 12                | 12   | Capture of Malta, 1800.            |  |                      |                      |                  |
| 6 Sat.                       | 5 52             | 6 4   | 1 43            | 3 27  | 13                | 13   |                                    |  |                      |                      |                  |
| 7 S.                         | 5 52             | 6 4   | 2 3             | 4 23  | 14                | 14   | 12th Sunday after Trinity.         |  |                      |                      |                  |
| 8 M.                         | 5 52             | 6 3   | 2 23            | 5 18  | 15                | 15*  | Sebastopol taken, 1855.            |  |                      |                      |                  |
| 9 Tu.                        | 5 52             | 6 2   | 2 44            | rises | 16                | 1    | Day's length 12h. 10m.             |  |                      |                      |                  |
| 10 W.                        | 5 52             | 6 2   | 3 5             | 7 29  | 17                | 2    | Mungo Park born, 1771.             |  |                      |                      |                  |
| 11 Th.                       | 5 52             | 6 1   | 3 26            | 8 12  | 18                | 3    | Sun's apprt. dec. North 4° 49' 22" |  |                      |                      |                  |
| 12 Fr.                       | 5 52             | 6 0   | 3 46            | 8 50  | 19                | 4    | Baltimore bombarded, 1814.         |  |                      |                      |                  |
| 13 Sat.                      | 5 52             | 6 0   | 4 7             | 9 40  | 20                | 5    |                                    |  |                      |                      |                  |
| 14 S.                        | 5 52             | 5 59  | 4 29            | 10 27 | 21                | 6    | 18th Sunday after Trinity.         |  |                      |                      |                  |
| 15 M.                        | 5 52             | 5 58  | 4 50            | 11 16 | 22                | 7    | Duke of Wellington died, 1852.     |  |                      |                      |                  |
| 16 Tu.                       | 5 52             | 5 57  | 5 11            | morn. | 23                | 8*   | Day's length 12h. 5m.              |  |                      |                      |                  |
| 17 W.                        | 5 52             | 5 56  | 5 32            | 0 6   | 24                | 9    |                                    |  |                      |                      |                  |
| 18 Th.                       | 5 53             | 5 56  | 5 53            | 0 56  | 25                | 10   | Sun's apprt. dec. North 1° 58' 55" |  |                      |                      |                  |
| 19 Fr.                       | 5 53             | 5 55  | 6 14            | 1 48  | 26                | 11   | Battle of Stillwater, 1777.        |  |                      |                      |                  |
| 20 Sat.                      | 5 53             | 5 54  | 6 35            | 2 39  | 27                | 12   | Battle of Alma, 1854.              |  |                      |                      |                  |
| 21 S.                        | 5 53             | 5 54  | 6 56            | 3 30  | 28                | 13   | 14th Sunday after Trinity.         |  |                      |                      |                  |
| 22 M.                        | 5 53             | 5 53  | 7 17            | 4 21  | 29                | 14   |                                    |  |                      |                      |                  |
| 23 Tu.                       | 5 53             | 5 52  | 7 38            | 5 15  | 30                | 15*  | Sun's apprt. dec. North 0° 2' 10"  |  |                      |                      |                  |
| 24 W.                        | 5 53             | 5 51  | 7 58            | sets  | 8th               | 11   | Sun's apprt. dec. South 0° 21' 15" |  |                      |                      |                  |
| 25 Th.                       | 5 53             | 5 51  | 8 19            | 6 38  | 2                 | 2    | Day's length 11h. 58m.             |  |                      |                      |                  |
| 26 Fr.                       | 5 53             | 5 50  | 8 39            | 7 29  | 3                 | 3    | Philadelphia taken, 1777.          |  |                      |                      |                  |
| 27 Sat.                      | 5 53             | 5 49  | 8 59            | 8 21  | 4                 | 4    |                                    |  |                      |                      |                  |
| 28 S.                        | 5 53             | 5 48  | 9 19            | 9 19  | 5                 | 5    | 15th Sunday after Trinity.         |  |                      |                      |                  |
| 29 M.                        | 5 53             | 5 47  | 9 39            | 10 20 | 6                 | 6    | St. Michael—Michaelmas day.        |  |                      |                      |                  |
| 30 Tu.                       | 5 53             | 5 47  | 9 58            | 11 20 | 7                 | 7    | St. Jerome.                        |  |                      |                      |                  |

# OCTOBER, 31 days.

**WEATHER.**—The former part of this month is likely to be as rainy as the latter part of the preceding; and in every other respect, the weather is much the same. In the latter part of the month however, a great change usually takes place. The winds become more variable and more try, being N. N. W, E. S. E, and W. The N. E. Monsoon then beings to assert her claims, which are seldom fully yielded until the beginning of November. The rivers become so full of water towards the close of October, as to over-flow their banks at the new and full moon, and inundate much of Bangkok, two or three hours daily each spring tide. There are but few streets in the city or its suburbs, that are not, at such times, covered with water more than ankle deep.

*Day of Month  
and Week.*

## Memoranda.

- 1 W.
- 2 Th.
- 3 Fr.
- 4 Sat.
- 5 Su.
- 6 M.
- 7 Tu.
- 8 W.
- 9 Th.
- 10 Fr.
- 11 Sat.
- 12 Su.
- 13 M.
- 14 Tu.
- 15 W.
- 16 Th.
- 17 Fr.
- 18 Sat.
- 19 Su.
- 20 M.
- 21 Tu.
- 22 W.
- 23 Th.
- 24 Fr.
- 25 Sat.
- 26 Su.
- 27 M.
- 28 Tu.
- 29 W.
- 30 Th.
- 31 Ft.

# OCTOBER, 31 days.

23

**BANGKOK.**

} Mean temperature 81-57.  
 } Extremes of ditto 74-91.  
 } Average number of da/ys on which rain falls 18.

### MOON'S PHASES.

|              |           |           |           |      |               |           |           |    |           |           |    |   |      |
|--------------|-----------|-----------|-----------|------|---------------|-----------|-----------|----|-----------|-----------|----|---|------|
|              | <i>d.</i> | <i>h.</i> | <i>m.</i> |      | <i>d.</i>     | <i>h.</i> | <i>m.</i> |    | <i>d.</i> | <i>h.</i> |    |   |      |
| Full Moon    | 8         | 3         | 28        | A.M. | New Moon      | 23        | 3         | 19 | P.M.      | Apogee    | 13 | 7 | P.M. |
| Last Quarter | 16        | 6         | 24        | A.M. | First Quarter | 30        | 6         | 26 | A.M.      | Perigee   | 25 | 3 | P.M. |

| <i>Day of Month and Week</i> | <i>Sun Rises</i> |           | <i>Sun Sets</i> |           | <i>Clock Slow</i> |           | <i>Moon Rises &amp; Sets</i> |           | <i>Chin-ese Moon</i> | <i>Siam-ese Moon</i> | <b>NOTABLE DAYS &amp;c.</b>         |
|------------------------------|------------------|-----------|-----------------|-----------|-------------------|-----------|------------------------------|-----------|----------------------|----------------------|-------------------------------------|
|                              | <i>H.</i>        | <i>M.</i> | <i>H.</i>       | <i>M.</i> | <i>M.</i>         | <i>S.</i> | <i>H.</i>                    | <i>M.</i> | 8th                  | 11th                 |                                     |
| 1 W.                         | 5                | 53        | 5               | 47        | 10                | 17        | morn                         |           | 8                    | 8                    | Chusan recaptured, 1841.            |
| 2 Th.                        | 5                | 53        | 5               | 46        | 10                | 36        | 0                            | 22        | 9                    | 9                    | First Railroad in U.S. 1833.        |
| 3 Fr.                        | 5                | 53        | 5               | 46        | 10                | 55        | 1                            | 20        | 10                   | 10                   | Sun's apprt. dec. South 8° 51' 34"  |
| 4 Sat.                       | 5                | 53        | 5               | 45        | 11                | 13        | 2                            | 17        | 11                   | 11                   | Battle of Germantown, 1777.         |
| 5 S.                         | 5                | 53        | 5               | 45        | 11                | 31        | 3                            | 11        | 12                   | 12                   | 16th Sunday after Trinity.          |
| 6 M.                         | 5                | 53        | 5               | 44        | 11                | 49        | 4                            | 3         | 13                   | 13                   | King of Denmark born.               |
| 7 Tu.                        | 5                | 53        | 5               | 43        | 12                | 6         | 4                            | 53        | 14                   | 14                   | Day's length 11h. 50m.              |
| 8 W.                         | 5                | 53        | 5               | 43        | 12                | 23        | 5                            | 47        | 15                   | 15*                  | Second Battle of Stillwater, 1777.  |
| 9 Th.                        | 5                | 53        | 5               | 42        | 12                | 40        | rises                        |           | 16                   | 1                    | Battle of Savannah, 1779.           |
| 10 Fr.                       | 5                | 53        | 5               | 41        | 12                | 56        | 6                            | 32        | 17                   | 2                    | Shanghai captured, 1841.            |
| 11 Sat.                      | 5                | 54        | 5               | 40        | 13                | 11        | 8                            | 20        | 18                   | 3                    | America discov'd by Columbus, 1492. |
| 12 S.                        | 5                | 54        | 5               | 40        | 13                | 26        | 9                            | 8         | 19                   | 4                    | 17th Sunday after Trinity.          |
| 13 M.                        | 5                | 54        | 5               | 39        | 13                | 41        | 9                            | 58        | 20                   | 5                    | Ningpo taken, 1841.                 |
| 14 Tu.                       | 5                | 54        | 5               | 38        | 13                | 55        | 10                           | 47        | 21                   | 6                    | Sun's apprt. dec. South 8° 3' 11"   |
| 15 W.                        | 5                | 54        | 5               | 38        | 14                | 8         | 11                           | 39        | 22                   | 7                    | Murat shot, 1815.                   |
| 16 Th.                       | 5                | 54        | 5               | 37        | 14                | 21        | morn                         |           | 23                   | 8*                   | Battle of Leipsic, 1818.            |
| 17 Fr.                       | 5                | 55        | 5               | 37        | 14                | 33        | 0                            | 28        | 24                   | 9                    | Bombardment of Sebastopol, 1854.    |
| 18 Sat.                      | 5                | 55        | 5               | 36        | 14                | 45        | 1                            | 18        | 25                   | 10                   | Senior King of Siam born, 1804.     |
| 19 S.                        | 5                | 55        | 5               | 36        | 14                | 56        | 2                            | 9         | 26                   | 11                   | 18th Sunday after Trinity.          |
| 20 M.                        | 5                | 55        | 5               | 35        | 15                | 6         | 3                            | 0         | 27                   | 12                   | Sir C. Wren born, 1682.             |
| 21 Tu.                       | 5                | 55        | 5               | 35        | 15                | 16        | 3                            | 54        | 28                   | 13                   | Sun's apprt. dec. South 10° 36' 50" |
| 22 W.                        | 5                | 56        | 5               | 34        | 15                | 25        | 4                            | 50        | 29                   | 14*                  | Lord Holland died, 1840.            |
| 23 Th.                       | 5                | 56        | 5               | 34        | 15                | 33        | 5                            | 48        | 9th                  | 12                   | Day's length 11h. 38m.              |
| 24 Fr.                       | 5                | 56        | 5               | 33        | 15                | 41        | sets                         |           | 2                    | 2                    | Daniel Webster died, 1852.          |
| 25 Sat.                      | 5                | 56        | 5               | 33        | 15                | 48        | 7                            | 8         | 3                    | 3                    | Battle of Agincourt, 1415.          |
| 26 S.                        | 5                | 56        | 5               | 32        | 15                | 54        | 8                            | 9         | 4                    | 4                    | 19th Sunday after Trinity.          |
| 27 M.                        | 5                | 57        | 5               | 32        | 16                | 0         | 9                            | 11        | 5                    | 5                    | Sun's apprt. dec. South 12° 42' 25" |
| 28 Tu.                       | 5                | 57        | 5               | 31        | 16                | 4         | 10                           | 14        | 6                    | 6                    | St. Simon and St. Jude.             |
| 29 W.                        | 5                | 57        | 5               | 31        | 16                | 8         | 11                           | 15        | 7                    | 7                    | Sir Walter Raleigh beheaded, 1616.  |
| 30 Th.                       | 5                | 58        | 5               | 30        | 16                | 12        | morn                         |           | 8                    | 8*                   | Day's length 11h. 32m.              |
| 31 Fr.                       | 5                | 58        | 5               | 30        | 16                | 14        | 0                            | 12        | 9                    | 9                    | Simon's bay captured, 1795.         |

# NOVEMBER, 31 days.

**WEATHER.**—The N. E. Monsoon is generally settled in her sway at the beginning of this month, and her dry and bracing breezes delight Europeans and Americans, but they chill sometimes unpleasantly the natives, whose extremities and chests are all uncovered. There is sometimes a little drizzling rain about the first of the month, and connected with it a few days of very oppressive heat, though but little indicated by the thermometer. The sudden changes from cold to hot at this time, render all persons more sensitive to such vicissitudes, and expose them to catarrhal complaints, which are usually prevalent, but not often of a grave character. Sometimes the wind gets into the S. W. again in the latter part of the month, and brings with it showers of rain.

*Day of Month  
and Week*

## Memoranda.

1 Sat.  
2 Su.  
3 M.  
4 Tu.  
5 W.  
6 Th.  
7 Fr.  
8 Sat.  
9 Su.  
10 M.  
11 Tu.  
12 W.  
13 Th.  
14 Fr.  
15 Sat.  
16 Su.  
17 M.  
18 Tu.  
19 W.  
20 Th.  
21 Fr.  
22 Sat.  
23 Su.  
24 M.  
25 Tu.  
26 W.  
27 Th.  
28 Fr.  
29 Sat.  
30 Su.

# NOVEMBER, 30 days.

25

**BANGKOK.**

{ Mean temperature 80-20.  
 { Extremes of ditto 69—89.  
 { Average number of days on which rain falls 7.

### MOON'S PHASES.

|              |                 |      |                 |         |              |
|--------------|-----------------|------|-----------------|---------|--------------|
|              | <i>d. h. m.</i> |      | <i>d. h. m.</i> |         | <i>d. h.</i> |
| Full Moon    | 6 7 31          | P.M. | New Moon        | 22 0 56 | A.M.         |
| Last Quarter | 15 0 53         | A.M. | First Quarter   | 28 4 44 | P.M.         |
|              |                 |      |                 | Apogee  | 10 0 P.M.    |
|              |                 |      |                 | Perigee | 22 11 P.M.   |

| Day of Month and Week | Sun Rises |       | Sun Sets |       | Clock Slow |     | Moon Rises & Sets |  | Chin-ese Moon | Siam-ese Moon                                                                             | NOTABLE DAYS &c. |
|-----------------------|-----------|-------|----------|-------|------------|-----|-------------------|--|---------------|-------------------------------------------------------------------------------------------|------------------|
|                       | H. M.     | H. M. | M. S.    | H. M. | H. M.      | 9th | 12th              |  |               |                                                                                           |                  |
| 1 Sat.                | 5 58      | 5 30  | 16 16    | 1 7   | 10         | 10  |                   |  |               | H.M.'s Proclamation at the Presiden-<br>20th Sunday after Trinity. <sup>[cies 1868.</sup> |                  |
| 2 S.                  | 5 59      | 5 29  | 16 17    | 1 59  | 11         | 11  |                   |  |               | Congress of Vienna, 1814.                                                                 |                  |
| 3 M.                  | 5 59      | 5 29  | 16 17    | 2 49  | 12         | 12  |                   |  |               | Guadaloupe discovered, 1498.                                                              |                  |
| 4 Tu.                 | 5 59      | 5 29  | 16 17    | 3 39  | 13         | 13  |                   |  |               | Gunpowder plot, 1605.                                                                     |                  |
| 5 W.                  | 6 0       | 5 28  | 16 15    | 4 29  | 14         | 14  |                   |  |               | Battle of Inkermann, 1854.                                                                |                  |
| 6 Th.                 | 6 0       | 5 28  | 16 13    | 5 18  | 15         | 15* |                   |  |               | Battle of Prague, 1660.                                                                   |                  |
| 7 Fr.                 | 6 0       | 5 28  | 16 10    | rises | 16         | 1   |                   |  |               | Sun's apprt. dec. South 16° 30' 51"                                                       |                  |
| 8 Sat.                | 6 0       | 5 28  | 16 6     | 7 2   | 17         | 2   |                   |  |               | 21st Sunday after Trinity.                                                                |                  |
| 9 S.                  | 6 1       | 5 27  | 16 1     | 7 59  | 18         | 3   |                   |  |               | Luther born, 1483. Milton died 1674.                                                      |                  |
| 10 M.                 | 6 1       | 5 27  | 15 55    | 8 42  | 19         | 4   |                   |  |               | Day's length 11h. 25m.                                                                    |                  |
| 11 Tu.                | 6 2       | 5 27  | 15 49    | 9 31  | 20         | 5   |                   |  |               |                                                                                           |                  |
| 12 W.                 | 6 2       | 5 26  | 15 42    | 10 21 | 21         | 6   |                   |  |               |                                                                                           |                  |
| 13 Th.                | 6 3       | 5 26  | 15 33    | 11 10 | 22         | 7   |                   |  |               | Sun's apprt. dec. South 17° 54' 51"                                                       |                  |
| 14 Fr.                | 6 3       | 5 26  | 15 24    | 11 59 | 23         | 8*  |                   |  |               | Cape of Good Hope doubled, 1497.                                                          |                  |
| 15 Sat.               | 6 4       | 5 26  | 15 14    | morn  | 24         | 9   |                   |  |               | Minorca taken by English, 1798.                                                           |                  |
| 16 S.                 | 6 4       | 5 25  | 15 4     | 0 49  | 25         | 10  |                   |  |               | 22nd Sunday after Trinity.                                                                |                  |
| 17 M.                 | 6 5       | 5 25  | 14 52    | 1 39  | 26         | 11  |                   |  |               | Day's length 11h. 20m.                                                                    |                  |
| 18 Tu.                | 6 5       | 5 25  | 14 39    | 2 32  | 27         | 12  |                   |  |               | Sun's apprt. dec. South 19° 11' 4"                                                        |                  |
| 19 W.                 | 6 5       | 5 25  | 14 26    | 3 29  | 28         | 13  |                   |  |               | Singapore transferred to the crown,<br>[1858.                                             |                  |
| 20 Th.                | 6 6       | 5 25  | 14 12    | 4 29  | 29         | 14  |                   |  |               | Jay's treaty, 1794.                                                                       |                  |
| 21 Fr.                | 6 6       | 5 25  | 13 57    | 5 33  | 30         | 15* |                   |  |               | Princess Royal born, 1840.                                                                |                  |
| 22 Sat.               | 6 7       | 5 25  | 13 41    | sets  | 10         | 1st |                   |  |               | Lord Clive died, 1774.                                                                    |                  |
| 23 S.                 | 6 7       | 5 25  | 13 24    | 6 55  | 2          | 2   |                   |  |               | 23rd Sunday after Trinity.                                                                |                  |
| 24 M.                 | 6 8       | 5 25  | 13 7     | 8 0   | 3          | 3   |                   |  |               | Treaty at Ghent, 1814.                                                                    |                  |
| 25 Tu.                | 6 9       | 5 25  | 12 49    | 9 4   | 4          | 4   |                   |  |               | Sun's apprt. dec. South 20° 48' 11"                                                       |                  |
| 26 W.                 | 6 10      | 5 25  | 12 30    | 10 5  | 5          | 5   |                   |  |               | Cowper the Poet born, 1781.                                                               |                  |
| 27 Th.                | 6 10      | 5 26  | 12 10    | 11 2  | 6          | 6   |                   |  |               | Day's length 11h. 16m.                                                                    |                  |
| 28 Fr.                | 6 11      | 5 26  | 11 50    | 11 56 | 7          | 7   |                   |  |               | Cardinal Woolsey died, 1530.                                                              |                  |
| 29 Sat.               | 6 11      | 5 26  | 11 29    | morn  | 8          | 8*  |                   |  |               |                                                                                           |                  |
| 30 S.                 | 6 12      | 5 26  | 11 7     | 0 47  | 9          | 9   |                   |  |               | 1st Sunday in Advent.                                                                     |                  |

# DECEMBER, 31 days.

**WEATHER.**—Although the N. E. Monsoon prevails, yet the wind is often from the E. S. S. E. and S. Sometimes it veers as far as S. S. W; and then consequently, the warm weather will return, the clear sky become overcast, perhaps thunder will be heard, and a little rain. The water in the rivers in the latitude of the city, continues to rise until about the first of this month; and the highest spring tides in the year occur about that time, when travelers may go to the old city & other distant places over the praires in boats. The beginning of this month, is always a good time to commence a long journey up either of the great Rivers. The country will be found dry, & the water in the rivers sufficiently high to give one a good view of the country through which he passes.

| <i>Day of Month<br/>and Week</i> | <b>Memoranda.</b> |
|----------------------------------|-------------------|
| 1 M.                             |                   |
| 2 Tu.                            |                   |
| 3 W.                             |                   |
| 4 Th.                            |                   |
| 5 Fr.                            |                   |
| 6 Sat.                           |                   |
| 7 Su.                            |                   |
| 8 M.                             |                   |
| 9 Tu.                            |                   |
| 10 W.                            |                   |
| 11 Th.                           |                   |
| 12 Fr.                           |                   |
| 13 Sat.                          |                   |
| 14 Su.                           |                   |
| 15 M.                            |                   |
| 16 Tu.                           |                   |
| 17 W.                            |                   |
| 18 Th.                           |                   |
| 19 Fr.                           |                   |
| 20 Sat.                          |                   |
| 21 Su.                           |                   |
| 22 M.                            |                   |
| 23 Tu.                           |                   |
| 24 W.                            |                   |
| 25 Th.                           |                   |
| 26 Fr.                           |                   |
| 27 Sat.                          |                   |
| 28 Su.                           |                   |
| 29 M.                            |                   |
| 30 Th.                           |                   |
| 31 W.                            |                   |

# DECEMBER, 31 days.

27

BANGKOK.

{ Mean Temperature, 77·25.  
 { Extremes of ditto, 64—88.  
 { Average number of days on which rain falls, 7.

## MOON'S PHASES.

Full Moon  $d. h. m.$  6 2 19 P.M. | New Moon  $d. h. m.$  21 11 47 A.M. | Apogee  $d. h.$  7 9 P.M.  
 Last Quarter 14 5 15 P.M. | First Quarter 28 6 26 A.M. | Perigee 21 10 A.M.

| Day of Month and Week | Sun Rises |       | Sun Sets |       | Clock Slow |     | Moon Rises & Sets.                  |  | Chinese Moon | Siam-ese Moon | NOTABLE DAYS &c. |
|-----------------------|-----------|-------|----------|-------|------------|-----|-------------------------------------|--|--------------|---------------|------------------|
|                       | H. M.     | H. M. | H. M.    | H. M. | 10th       | 1st |                                     |  |              |               |                  |
| 1 M.                  | 6 12      | 5 26  | 10 45    | 1 37  | 10         | 10  | Ebenezer Elliot died, 1849.         |  |              |               |                  |
| 2 Tu.                 | 6 13      | 5 27  | 10 22    | 2 26  | 11         | 11  | Sun's apprt. dec. South 21° 56' 18" |  |              |               |                  |
| 3 W.                  | 6 13      | 5 27  | 9 59     | 3 15  | 12         | 12  | Mauritius surrendered, 1810.        |  |              |               |                  |
| 4 Th.                 | 6 14      | 5 27  | 9 35     | 4 5   | 13         | 13  | Day's length 11h. 18m.              |  |              |               |                  |
| 5 Fr.                 | 6 14      | 5 28  | 9 10     | 4 55  | 14         | 14  |                                     |  |              |               |                  |
| 6 Sat.                | 6 15      | 5 28  | 8 45     | 5 46  | 15         | 15* | Van Baren born, 1732.               |  |              |               |                  |
| 7 S.                  | 6 15      | 5 28  | 8 19     | rises | 16         | 1   | 2nd Sunday in Advent.               |  |              |               |                  |
| 8 M.                  | 6 16      | 5 28  | 7 53     | 7 27  | 17         | 2   | Sun's apprt. dec. South 22° 42' 37" |  |              |               |                  |
| 9 Tu.                 | 6 16      | 5 29  | 7 26     | 8 17  | 18         | 3   | Milton born, 1608.                  |  |              |               |                  |
| 10 W.                 | 6 17      | 5 29  | 6 59     | 9 5   | 19         | 4   | Great Commercial panic, 1825.       |  |              |               |                  |
| 11 Th.                | 6 17      | 5 29  | 6 32     | 9 53  | 20         | 5   | Washington died, 1799.              |  |              |               |                  |
| 12 Fr.                | 6 18      | 5 30  | 6 4      | 10 42 | 21         | 6   | Fort George captured, 1812.         |  |              |               |                  |
| 13 Sat.               | 6 18      | 5 30  | 5 35     | 11 31 | 22         | 7   | Fall of Rhedat, 1839.               |  |              |               |                  |
| 14 S.                 | 6 19      | 5 30  | 5 7      | morn. | 23         | 8*  | 3rd Sunday in Advent.               |  |              |               |                  |
| 15 M.                 | 6 20      | 5 30  | 4 38     | 0 21  | 24         | 9   | Sun's apprt. dec. South 23° 10' 20" |  |              |               |                  |
| 16 Tu.                | 6 20      | 5 31  | 4 9      | 1 10  | 25         | 10  | King of Belgium born.               |  |              |               |                  |
| 17 W.                 | 6 21      | 5 31  | 3 39     | 2 10  | 26         | 11  | Aurora Borealis discovered, 1719.   |  |              |               |                  |
| 18 Th.                | 6 22      | 5 32  | 3 10     | 3 10  | 27         | 12  | Day's length 11h. 10m.              |  |              |               |                  |
| 19 Fr.                | 6 22      | 5 32  | 2 40     | 4 14  | 28         | 13  | Rome burnt.                         |  |              |               |                  |
| 20 Sat.               | 6 23      | 5 33  | 2 10     | 5 18  | 29         | 14* |                                     |  |              |               |                  |
| 21 S.                 | 6 23      | 5 33  | 1 40     | sets  | 11         | 2nd | 4th Sunday in Advent.               |  |              |               |                  |
| 22 M.                 | 6 24      | 5 34  | 1 10     | 6 42  | 2          | 2   | Wallaston died, 1823.               |  |              |               |                  |
| 23 Tu.                | 6 24      | 5 34  | 0 40     | 7 46  | 3          | 3   | Flight of James II, 1688.           |  |              |               |                  |
| 24 W.                 | 6 25      | 5 35  | 0 10     | 8 48  | 4          | 4   | Peace with U.S.Am. 1814.            |  |              |               |                  |
| 25 Th.                | 6 25      | 5 35  | 0 20     | 9 46  | 5          | 5   | Christmas day.                      |  |              |               |                  |
| 26 Fr.                | 6 25      | 5 36  | 0 50     | 10 40 | 6          | 6   | Sun's apprt. dec. South 23° 23' 12" |  |              |               |                  |
| 27 Sat.               | 6 26      | 5 36  | 1 20     | 11 31 | 7          | 7   | Day's length 11h. 10m.              |  |              |               |                  |
| 28 S.                 | 6 26      | 5 37  | 1 49     | morn  | 8          | 8*  | 1st Sunday after Christmas.         |  |              |               |                  |
| 29 M.                 | 6 27      | 5 37  | 2 19     | 0 22  | 9          | 9   | Lord Stafford beheaded, 1680.       |  |              |               |                  |
| 30 Tu.                | 6 27      | 5 38  | 2 48     | 1 12  | 10         | 10  | Nagpore taken, 1817.                |  |              |               |                  |
| 31 W.                 | 6 27      | 5 39  | 3 16     | 2 1   | 11         | 11  |                                     |  |              |               |                  |

## SIAMESE MODE OF DIVIDING TIME.

The 24 hours of each day, are divided into two equal parts. The day time is called WĀN, (*sound ā as a in what*). The night time K'ŪN, (*the apostrophe denotes that the letter before it is aspirated.*) The former uniformly begins at six o'clock A. M.; the latter at 6 P. M. The hours of the forenoon are numbered 1, 2, 3, &c. up to 6, or mid-day. The hours of the afternoon are designated by the same numbers. Time in the forenoon is called P'ĒLA CH'ŌW, (*é sounded as e in prey*); time afternoon, P'ĒLA BĀI. The word denoting any hour in the day time is MONG; that for night time is T'ŌM. In expressing 9 A. M. they say, 'SÁM (3rd) MONG CH'ŌW',—3 P. M., 'SÁM MONG BĀI'—9 P. M., 'SÁM T'ŌM.

The hours of the night are counted in succession from 1 to 12. Six o'clock A.M. is the close of their 12th hour of the night. Each night is divided into four watches of three hours each, and each watch is called a YĀM.

Siamese months are designed to be lunar months: but they often vary from the moon a day or more. Each month is divided into two parts, viz: K'ĀNG K'ŪN, (Waxing), and K'ĀNG RAAM, (Waning). The former has always 15 days; but the latter has 15 days every 2nd, 4th, 6th, 8th, 10th, and 12th month; and 14 days every 1st, 3rd, 5th, 7th, 9th, and 11th, month. Hence six of their months have 30 days, and six, 29 days—354 to 12 months, which wants about 11 days to make up a full solar year. To compensate for this, they have an intercalary month of 30 days, once in 2 or 3 years. The years 1853. 1855 1858 and 1861 were leap-years. By this plan there is still a loss of about three days in 19 years, which is supplied by adding a day to their 7th month from time to time, as their Brahmin astrologers see to be necessary, which they did for 1860.

## TABLE OF SIAMESE TIME.

|          |              |      |       |                       |
|----------|--------------|------|-------|-----------------------|
| 60       | Winat'ees    | make | 1     | Nat'ee or minute.     |
| 6        | Nat'ees      | "    | 1     | Băt                   |
| 10       | Băts         | "    | 1     | Mong or T'Ōm, (hour)  |
| 12       | Mongs        | "    | 1     | Wān (day)             |
| 12       | T'Ōms        | "    | 1     | K'Ūn (night)          |
| 29 or 30 | wāns & k'Ūns | 1    | Dŭ'an | (month)               |
| 12 or 13 | Dŭ'ans       | make | 1     | Pee (year)            |
| 10       | Pees         | "    | 1     | Sōk, or cycle of ten. |

They have no word to denote a week of time. But each day of the seven has its appropriate name and number. Sunday is their first, and Saturday their 7th day. By the recurrence of the first and 7th days, they are reminded of the lapse of seven days, as we are by the word week.

The days of the week are,

|      |              |                             |
|------|--------------|-----------------------------|
| 1st, | Wān At'it,   | (day of the sun,) Sunday.   |
| 2nd, | Wān Chăn,    | (day of the moon,) Monday.  |
| 3rd, | Wān Angk'an' | (day of Mars,) Tuesday.     |
| 4th, | Wān Pŏöt,    | (day of Mercury) Wednesday. |
| 5th, | Wān Prähăt,  | (day of Jupiter,) Thursday. |
| 6th' | Wān Sōök,    | (day of Venus,) Friday.     |
| 7th, | Wān Sów,     | (day of Saturn,) Saturday.  |

Their twelve months are each designated by its appropriate number, excepting the 1st and 2nd. The former, instead of being called the 1st month, is called Dŭ'AN ài, (month ài); the latter, Dŭ'AN Yèè (month Yèè). The next succeeding month is called Dŭ'AN Sám, (3rd month); the next, Dŭ'AN Sĕĕ, (4th month); and so on through the twelve.



The Siamese have two cycles, one within the other. The greater is 12 years, the smaller 10. The name of the former is PEE, the latter SÖK. Every year of each kind of cycle has its own specific name.

The years of the cycle of 12 are.

|      |             |             |               |
|------|-------------|-------------|---------------|
| 1st  | Pee Ch'ööät | year of the | Rat.          |
| 2d   | Pee Ch'áloo | " "         | Cow.          |
| 3d   | Pee K'an    | " "         | Tiger.        |
| 4th  | Pee T'aw:   | " "         | Rabbit.       |
| 5th  | Pee Mārōng  | " "         | Great Dragon. |
| 6th  | Pee Mäsēng  | " "         | Small Dragon. |
| 7th  | Pee Māmeeā  | " "         | Horse.        |
| 8th  | Pee Māmaā   | " "         | Goat.         |
| 9th  | Pee Wàwk    | " "         | Monkey.       |
| 10th | Pee Rāka    | " "         | Cock.         |
| 11th | Pee Chaw    | " "         | Dog.          |
| 12th | Pee Kōōn    | " "         | Hog.          |

The years of the cycle of 10 are.

|              |                   |               |                   |
|--------------|-------------------|---------------|-------------------|
| Ekā sōk      | 1st of the cycle. | Ch'áwsōk      | 6th of the cycle. |
| T'o sōk      | 2d " " "          | Sāpp'a sōk    | 7th " " "         |
| Treeni sōk   | 3d " " "          | Aätt'a sōk    | 8th " " "         |
| Chättāwa sōk | 4th " " "         | Nöp'a sōk     | 9th " " "         |
| Benyāsōk     | 5th " " "         | Sámrett'i sōk | 10th " " "        |

In writing the number of their Era, the name of each cycle as it chanced to be, is always given in the same connection: *e. g.* this year (Jan. 1862) is 1223 Pee Rāka T'reentsōk.

Every Siamese is taught to remember carefully the name of each year of the cycle of 12, and by no means to forget the name of the particular year, moon, day of the moon, & day of the week in which he was born. So that at any time, when he would count up the number of the years he has lived, he begins by repeating the name of the years in succession from the one that gave him birth, until he comes back again to his birth-year, keeping tally with his fingers. Thus he counts on, until he makes another cycle of twelve, more or less, as the case may be in regard to his age. He can tell quite certainly whether his age is within the 1st cycle of 12, or the 2nd, or 3d, or 4th; but if he be upwards of 60 years old, he is liable to get bewildered in his reckoning, for the want of the habit of counting his years by the year of the Era in which he was born. This the Siamese never do.

The Siamese sacred Era is reckoned from the time it is supposed Buddha died which is 2405 years at the full moon in May 1862. This reckoning is never used except in their religious matters. It is denominated P'öör'a Sākkrārāt (Era of Buddha). Their civil Era, called Chöölā Sākkrārāt (little Era,) is reckoned from the time when P'rā Rööāng, a Siamese king of great celebrity, established it, and that is 1223 full years the 31st March 1862. Siamese in writing their dates, always show 1st, the year of their Era; 2nd the day of the week; 3d the day of the waxing or waning moon; 4th, the number of the month; 5th, the name of the year; and 6th, the particular year of the cycle of 10. Their mode of showing the day of week, day of moon, and the month is very concise. They make the sign of plus like this—|. At the end of the left hand arm they write with a figure, the number of the week day; at the end of the upper arm, the number of the day of the waxing moon; at the lower arm, the day of the waning moon; and at the end of the right hand arm, the number of the month. Example 1-|-2. This reads Sunday, the 12th day of the waning moon, the 2nd month.

## TABLE OF EXCHANGE,

Furnished by D. O. CLARK.

| Salungs<br>per dollar. | For \$100.           | Cents to<br>each Tical  | Salungs<br>per Dollar. | For \$100.           | Cents to<br>each Tical  |
|------------------------|----------------------|-------------------------|------------------------|----------------------|-------------------------|
| 6 =                    | 150. Tl. or          | 66.66 $\frac{2}{3}$ Tl. | 66 =                   | 165. Tl. or          | 60.60 $\frac{2}{3}$ Tl. |
| 6.025                  | 150.62 $\frac{1}{2}$ | 66.39                   | 6.525                  | 165.62 $\frac{1}{2}$ | 60.37                   |
| 6.050                  | 151.25               | 66.11                   | 6.650                  | 166.25               | 60.15                   |
| 6.075                  | 151.87 $\frac{1}{2}$ | 65.84                   | 6.675                  | 166.87 $\frac{1}{2}$ | 59.92                   |
| 6-1                    | 152.50               | 65.57                   | 6.7                    | 167.50               | 59.70                   |
| 6.125                  | 153.12 $\frac{1}{2}$ | 65.30                   | 6.725                  | 168.12 $\frac{1}{2}$ | 59.48                   |
| 6.150                  | 153.75               | 65.04                   | 6.750                  | 168.75               | 59.27                   |
| 6.175                  | 154.37 $\frac{1}{2}$ | 64.71                   | 6.775                  | 169.37 $\frac{1}{2}$ | 59.04                   |
| 6.2                    | 155.                 | 64.51                   | 6.8                    | 170.                 | 58.82                   |
| 6.225                  | 155.62 $\frac{1}{2}$ | 64.26                   | 6.825                  | 170.62 $\frac{1}{2}$ | 58.61                   |
| 6.250                  | 156.25               | 64.                     | 6.850                  | 171.25               | 58.39                   |
| 6.275                  | 156.87 $\frac{1}{2}$ | 63.74                   | 6.875                  | 171.87 $\frac{1}{2}$ | 58.18                   |
| 6.3                    | 157.50               | 63.50                   | 6.9                    | 172.50               | 57.97                   |
| 6.325                  | 158.12 $\frac{1}{2}$ | 63.24                   | 6.925                  | 173.12 $\frac{1}{2}$ | 57.76                   |
| 6.350                  | 158.75               | 62.99                   | 6.950                  | 173.75               | 57.55                   |
| 6.375                  | 159.37 $\frac{1}{2}$ | 62.74                   | 6.975                  | 174.37 $\frac{1}{2}$ | 57.34                   |
| 6.4                    | 160.                 | 62.50                   | 7.                     | 175.                 | 57.14                   |
| 6.525                  | 160.62 $\frac{1}{2}$ | 62.26                   | 7.025                  | 175.62 $\frac{1}{2}$ | 56.94                   |
| 6.450                  | 161.25               | 62.                     | 7.050                  | 176.25               | 56.73                   |
| 6.475                  | 161.87 $\frac{1}{2}$ | 61.77                   | 7.075                  | 176.87 $\frac{1}{2}$ | 56.54                   |
| 6.5                    | 162.50               | 61.53                   | 7.1                    | 177.50               | 56.33                   |
| 6.525                  | 163.12 $\frac{1}{2}$ | 61.30                   | 7.125                  | 178.12 $\frac{1}{2}$ | 56.14                   |
| 6.550                  | 163.75               | 61.07                   | 7.150                  | 178.75               | 55.94                   |
| 6.575                  | 164.37 $\frac{1}{2}$ | 60.83                   | 7.175                  | 179.37 $\frac{1}{2}$ | 55.74                   |
|                        |                      |                         | 7.2                    | 180.                 | 55.55                   |

## WEIGHTS, MEASURES &amp;c.

## TABLE OF SIAMESE MONEY.

|               |      |                 |   |            |
|---------------|------|-----------------|---|------------|
| 4 P'eis       | make | 1 F'uang        | = | \$ 0.075   |
| 2 F'uang's    | "    | 1 S'ang         | " | 0.150      |
| 4 S'ang's     | "    | 1 B'at or Tical | " | 0.600      |
| 4 B'ats       | "    | 1 T'amlung      | " | 2.400      |
| 20 T'amlung's | "    | 1 Ch'ang        | " | 48.000     |
| 50 Ch'ang's   | "    | 1 H'ap          | " | 2400.000   |
| 100 H'ap      | "    | 1 T'ara         | " | 240000.000 |

The standard of weight being the coin of the country, weights are designated by the same terms. A Tical weighs 236 grains Troy,

The Siamese standard of weight is just double that of the Chinese; and goods are bought and sold in Bangkok more by the Chinese than the Siamese stand-

## LONG MEASURE.

|          |      |        |                       |                               |
|----------|------|--------|-----------------------|-------------------------------|
| 1 Niw    |      | =      | $\frac{13}{16}$ inch. | 1                             |
| 12 Niws  | make | 1 Kùp  | =                     | $9\frac{3}{4}$ "              |
| 2 K'ùps  |      | 1 Sāwk | "                     | $19\frac{1}{2}$ "             |
| 4 Sāwks  |      | 1 Wah  | "                     | 28 "                          |
| 20 Wahs  |      | 1 Sèn  | "                     | 130 feet                      |
| 400 Sèns |      | 1 Yòt  | "                     | $9\frac{1}{2}$ statute miles. |

**T** Timber is bought by the Yòk, which is 64 Sawk in length, by 1 Sāwk in width, = 36864 Siamese inches, being equivalent to 169 feet in length, and 1 inch thick English measure.

## DRY MEASURE.

|           |           |          |                       |
|-----------|-----------|----------|-----------------------|
| 1 Tānan   |           | =        | $1\frac{1}{2}$ pints. |
| 20 Tānans | make      | 1 Tāng   | " 15 "                |
| 25 Tānans | "         | 1 Săt    | "                     |
| 100 Tāngs | of 80 Săt | 1 Coyan. |                       |

**A** Coyan is 20 Piculs. A Picul is 133 $\frac{1}{4}$  lbs. Avoirdupois.

## THE KINGS OF SIAM.

FROM THE TIME THE OLD CITY AYUTHIA WAS BUILT.

CHÖÖLĀ ERA 712. = A.D. 1351.

Furnished by P'rā: Alāk, the chief of the king's Scribes, and doubtless with the approbation of His Majesty, designed by him we think, to correct the list of the kings published in the Calendar for 1860. If His Majesty, with all his knowledge of the history of his own people, cannot teach us aright, what record from the royal archives, or indeed from any other quarter can we confide in?

That within the brackets does not belong to P'rā: Alāk.

## 1st DYNASTY.

| Name.                                                                                               | Choonla Era. | A.D. | Length of reign. |
|-----------------------------------------------------------------------------------------------------|--------------|------|------------------|
| 1 Sómđēt P'rā Rama T'ibawdee the 1. . . . .                                                         | 712          | 1351 | 20 Yr Mo         |
| 2 Sómđēt P'rā Ramē-sóóän,—son of the 1st . . . . .<br>who abdicated for.                            | 732          | 1371 | 1                |
| 3 Sómđēt P'rā Bawrōmä-Rach'a T'irät . . . . .                                                       | 732          | 1371 | 13               |
| 4 Chòw T'awng Chăn,—son of the 3rd. . . . .                                                         | 744          | 1383 | 7d.              |
| 5 Sómđēt P'rā Ramē-Sóóän,—assasinated the 4th . . . . .<br>being the same person of the 2nd. reign. | 744          | 1383 | 6                |
| 6 Sómđēt P'rāya P'rā Ram,—son of the 5th. . . . .                                                   | 759          | 1398 | 15               |
| 7 Sómđēt P'rā Nāk'awn In . . . . .                                                                  | 763          | 1402 | 18               |
| 8 Sómđēt P'rā Bawrōmä Rach'a T'i-Rät,—son of the 7th.                                               | 780          | 1419 | 17               |
| 9 Sómđēt P'rā Bawrōmä Trei Lökänät,   son of the 8th.                                               | 796          | 1435 | 16               |
| 10 Sómđēt P'rā Int'ā-Rach'a,—son of the 9th. . . . .                                                | 811          | 1450 | 22               |
| 11 Sómđēt P'rā Rama-T'ibawdee,—the 11. . . . .                                                      | 832          | 1489 | 40               |
| 12 Sómđēt P'rā Bawrōmä-Rach'a Nāw P'òót T'āng . . . . .<br>son of the 11th.                         | 871          | 1510 | 5                |
| 1 P'rā Rātsāt'a T'irät,—son of the 12th, 5 years old.                                               | 875          | 1514 | 5                |

| Name.                                                                                                                                                                                                                                                                                                                                                     | Choonla Era. | A.D. | Length of reign<br>vs. mo. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------|----------------------------|
| 14 Sômdět P'rā C'hei Rach'a T'irát, . . . . .<br>Son of the 12th. killed by the 13th.                                                                                                                                                                                                                                                                     | 875          | 1514 | 15                         |
| 15 P'rā Yáwt Fa,—son of the 14th. aged 11 years. . . . .<br>The 15th was slain by K'óon Wărăwóngsa T'irát who took the throne, and reigned 5 months. Being a usurper, his name is not allowed to have a place among the names of Siamese kings. He was assassinated by K'óon P'irénà t'èp, who placed on the throne P'rā T'ceän Rach'a who bore the name. | 889          | 1528 | 2½                         |
| 16 Sômdět P'rā Mähá Chákrá-P'ätli-Rach'a T'irát. . . . .                                                                                                                                                                                                                                                                                                  | 891          | 1530 | 27                         |
| 17 P'rā Mähín T'ä Rach'a T'irát'—son of 16th.<br>The Capital of the kingdom was taken in 918 by the King of Hóngsáwádee or Pegu.                                                                                                                                                                                                                          | 917          | 1556 | 1                          |
| 18 Sômdět P'rā Mähá T'amá Rach'a T'irát. . . . .                                                                                                                                                                                                                                                                                                          | 918          | 1557 | 23                         |
| 19 Sômdět P'rā Nārēt,—son of the 18th.                                                                                                                                                                                                                                                                                                                    | 940          | 1579 | 16                         |
| 20 Sômdět P'rā ěka T'ötsäröt,—a younger brother of 19th                                                                                                                                                                                                                                                                                                   | 945          | 1584 | 9                          |
| 21 Chòw Fa Sri Sāwārā P'āk,—son of the 20th. . . . .<br>Here closes the Dynasty of Sômdět P'rā Rama T'ibawdee, being 20 different kings, one of them having reigned twice.                                                                                                                                                                                | 962          | 1603 | 1 2                        |

*2nd DYNASTY.*

|                                                                                                                                                                      |     |      |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|-----|
| 22 P'rā Chòw Sōng-T'ām,—slew the 21st. and reigned . . . . .<br>[He acquired a great name by his pretended discovery of Bôôdh's foot print at P'rābât]               | 964 | 1603 | 26  |
| 23 P'rā Ch'ět'á T'irát Ötsäröt,—an elder brother of the 22nd<br>The Prime Minister Chòw P'áya Krālahóm Sré Sôô riwóng assassinated the 23rd, & placed on the throne. | 989 | 1628 | 1 7 |
| 24 P'rā At'it'áya Wōng,—a brother of the 23rd, 9 years old.                                                                                                          | 992 | 1631 | 5   |

Here closes the Dynasty of P'rā Chòw Sōng-t'ām, 3 reigns.

*3rd DYNASTY.*

The former king was driven from the throne by the Siamese Nobles & Lords, whose place they filled by the Prime Minister above mentioned, viz,

|                                                                                                            |      |      |      |
|------------------------------------------------------------------------------------------------------------|------|------|------|
| 25 P'rā Chòw Prāsät T'awng. . . . .                                                                        | 992  | 1631 | 26   |
| 26 Chòw Fa Ch'ei,—son of the 25th. . . . .                                                                 | 1017 | 1656 | 9    |
| 27 P'rā Sôot'amá Rach'a,—killed the 26th & reigned. . . . .                                                | 1018 | 1657 | 2½   |
| 28 Sômdět P'rā Nērai,—son of 25th killed the 27th, . . . . .                                               | 1018 | 1657 | 26   |
| 29 P'rā P'ët Rach'a,—He is called a usurper, and is not allowed an honorable place among the kings.        | 1044 | 1683 | 16   |
| 30 P'rā P'ööt'ä Chòw S'üa,—son of the 27th. . . . .                                                        | 1059 | 1698 | 10   |
| 31 P'rā Chòw Yôô hóóá t'èi,—son of the 30th. . . . .                                                       | 1069 | 1708 | 27   |
| 32 P'rā Chòw Yôô hóóá Bawrömāköt. brother of the 31st                                                      | 1094 | 1733 | 26   |
| 33 Chòw Fa Däwk-mádt'ä,—son of the 32nd, . . . . .<br>and then abdicated the throne for his elder brother. | 1120 | 1759 | 10ds |
| 34 P'rā Chòw T'imang Sôoriya Mäin t'ärä, . . . . .                                                         | 1120 | 1759 | 9    |

|                            | Name.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Choonla Era. | A. D. | Length of reign |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|-----------------|
|                            | The close of the Dynasty of P'rāsāt t'awng, being 9 kings in all, the usurper being excluded.<br>The whole term in which the above named 34 kings reigned is 417 years, averaging 12,3 years each.<br>[The Burmese sacked the capital, in the year 1767 & carried away many captives. The chief of the Siamese army rallied the Siamese under him at T'ōnt'a-Bōōree, which is now the site of H.R.H. Krōmālōōang Wōngsá t'irāt sánit's palace. He built a walled city in this place, and reigned as king P'ya Tāk.] |              |       | VS. MO.         |
| 35                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1129         | 1767  | 15              |
| <b>THE PRESENT DYNASTY</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |       |                 |
|                            | [A Siamese General of great celebrity under P'aya Tāk, took the throne, named,                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |       |                 |
| 36                         | Sómdēt P'rā Bawrōmā Rach'a P'ra P'ōōt'ī Yàwt Fā.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1144         | 1782  | 27              |
| 37                         | P'rā P'ōōt'ī Lōt Lā,—son of the 36th.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1171         | 1809  | 15              |
| 38                         | P'rābāt Sómdēt P'rā Nāng Klōw,—son of the 37th.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1186         | 1824  | 27              |
| 39                         | P'rābāt Sómdēt P'rā Pārāmandr Māhā Mōngkōōt, the present reigning sovereign, son of the 37th, succeeded to the throne                                                                                                                                                                                                                                                                                                                                                                                               | 1213         | 1851  | 11              |
|                            | P'rābāt Sómdēt P'ra P'īn Klōw second King do]                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | "            | "     | "               |

## THE CHIEF RELATIVES OF THE PRESENT REIGNING

### SOVEREIGNS OF SIAM.

#### UNCLES OF THE PRESENT KING.

Krōm sómdēt p'rā pārāma nōōch'it, deceased 1854.

Krōm p'rāram isārēt nīrān bawp'it, deceased 1855.

Krōm Lóōang p'isēt sée sāvātdee, deceased 1854.

#### ELDER BROTHER OF THE KING.

Krōm Sómdēt p'rā dēch'a dīsawn, deceased 1859.

Krōm p'rā p'ip'it p'ōk'a p'oobēn, deceased 1856.

Krōm p'rā p'it'āk t'ewēt.

#### YOUNGER BROTHERS.

Krōm Lóōang p'oowānēt nārin rīt, deceased 1856.

Krōm Lóōang māhīsā wārin t'āram rēt, deceased 1861.

Krōm Lóōang t'ewēt wāch'ārīn,

Krōm Lóōang sānp'āsīn preech'a, deceased 1861.

Krōm Lóōang Wōngsá t'irāt sánit,

Kaōm Kōōn sā t'itsā t'āp'awn, deceased 1856.

Krōm Mīn t'āwawn wōrāyōt,

Krōm Mīn Alōngkōōt kitchā preech'a,

Krōm Mīn wōrāsākda p'isān,

Krōm Mīn p'ooban bōrīrāk,

Krōm Mīn wōrāchāk rōt'āranōō p'āp,

Sómdēt P'rā chōw nawng ya t'ō Chōw fā māhā mala.

## NEPHEWS.

Kröm Mũn ch'ê'á t'ibên,  
 Kröm Mũn âmáren bawdin,  
 Kröm Mũn p'oomint'ara p'akdee,  
 Kröm Mũn rach'ásée wikrôm,  
 Kröm Mũn ad'ôn lăksaná: sómbát,  
 Kröm Mũn ód'ôm rá't'aná rasée,  
 Kröm Mũn p'oobawdee räch'á hũ'rũ t'ei.

## COUSINS.

Kröm K'òon năra n'òch'it,  
 Kröm K'óon t'b'et bawwawn, deceased 1858.  
 Kröm Mũn âmawu m'ontree,  
 Ch'ow Fa Isara p'ông, deceased 1861.  
 Kröm Mũn m'ontree răksá  
 Kröm Mũn t'ewa n'òrăk.

## SONS.

Kröm Mũn mähê só'ôn stwá wilăt,  
 Kröm Mũn p'itsăn'òonăt n'ip'a t'awn

His Majesty the 1st King has a very numerous family. His chief wife was a daughter of one of the sons of the late king. He honored her as his Queen Consort, and by her had several sons and daughters. She died 9th Sept. 1861

The number of his concubines cannot be learned. Some estimate may be made concerning it, by the number of children he has had born to him since he came to the Throne. The number living Feb. 1861 was 44; the number that had died, 13.

He has two sons, young men with families, born to him in his youthful days before he went into the priesthood. His majesty the 2nd king, has also a large family; but not as numerous as that of the 1st king.

## FOREIGN MISSIONS IN SIAM.

## ROMAN CATHOLIC MISSIONARIES.

## FRENCH MISSION.

*Mission commenced* - - - - - 1662.

|                                                                                |       |
|--------------------------------------------------------------------------------|-------|
| RIGHT REV. JOHN BAPTIST PALLERGOIX. Bishop of Mallos, Vicar Apostolic of Siam. | 1830. |
| REV. CLEMENCIAU, Provicar Apostolic, Assumption's Church Bangkok.              | 1832. |
| REV. DUPOND, Rosary Church, Bangkok                                            | 1840. |
| REV. DUCAT, St. Cruz Church, Bangkok                                           | 1854. |
| REV. GIBARTA, St. Francis' Church, Bangkok.                                    | 1848. |
| REV. LARNAUDIE, St. Joseph's Church, Ayuthia.                                  | 1845. |
| REV. DANIEL, St. Paul's Church, Paat-rew.                                      | 1845. |
| REV. GEORGEL, Nativity Church, Bang ch'ang.                                    | 1855. |
| REV. RANFAING, Conception's Church, Chântáboon.                                | 1838. |
| REV. JOHN MARTIN, Conception's Church, Bangkok.                                | 1879. |
| REV. SEVERIN PONARD                                                            | 1841. |

**PROTESTANT MISSIONS IN BANGKOK.**

*The date of each person's arrival, and time of the commencement of each Mission.*

**MISSION OF THE AM. BAPTIST BOARD.**

|                                                  |           |                   |
|--------------------------------------------------|-----------|-------------------|
| <i>Mission commenced</i>                         | - - - - - | March 25th. 1833. |
| REV. SAMUEL J. SMITH, Missionary to the Siamese, | - - - - - | June 17th. 1849.  |
| REV. ROBERT TELFORD, Missionary to the Chinese,  | - - - - - | June 24 1854      |
| MRS. SARAH J. SMITH-                             | - - - - - | Feb. 19th. 1848   |
| MRS. LUCINA B. TELFORD.                          | - - - - - | June 24th, 1854   |

**AM. PRESBYTERIAN MISSION.**

STATIONED AT BANGKOK.

|                            |           |                   |
|----------------------------|-----------|-------------------|
| <i>Mission commenced</i>   | - - - - - | Aug. 17th. 1840.  |
| REV. STEPHEN MATTOON.      | - - - - - | March. 22d. 1847. |
| REV. SAMUEL R. HOUSE M. D. | - - - - - | " " 1847.         |
| REV. JONATHAN WILSON.      | - - - - - | June 20th. 1858.  |
| REV. NOAH A. McDONALD      | - - - - - | Sept. 15. 1860.   |
| MRS. MARY L. MATTOON       | - - - - - | March 22d. 1847.  |
| MRS. HARRIETTE M. HOUSE.   | - - - - - | July 9th. 1856.   |
| MRS. ELIZA S. McDONALD     | - - - - - | Sept. 15 1860.    |

STATIONED AT PETCHABUREE.

|                           |           |                  |
|---------------------------|-----------|------------------|
| REV. DANIEL MCGILVARY,    | - - - - - | June 20th, 1858. |
| REV. SAMUEL G. MCFARLAND  | - - - - - | Sept. 15, 1860.  |
| MRS. JENNIE E. MCFARLAND  | - - - - - | Sept. 15, 1860.  |
| MRS. SOPHIA B. MCGILVARY. | - - - - - | Dec. 6 1860.     |

**MISSION OF THE AM. MISSIONARY ASSOCIATION.**

|                              |           |                  |
|------------------------------|-----------|------------------|
| <i>Mission commenced</i>     | - - - - - | July 1st. 1848.  |
| REV. DAN BEACH BRADLEY M. D. | - - - - - | July 18th. 1835. |
| MRS. SARAH BLACHLY BRADLEY.  | - - - - - | May 30th. 1850.  |

**CONSULATES AT BANGKOK.**

PLACED IN THE ORDER OF THEIR ESTABLISHMENT.

**PORTUGUESE CONSULATE.**

*Established 1820.*

ANTONIO FREDERICO MOOR,—*Consul.*  
JOAQUIM MAXIMIANO DE SILVA,—*Chancellor.*

**CONSULATE OF THE U. S. OF AMERICA.**

*Established May 29th 1859.*

JOHN HASSETT CHANDLER,—*Consul,*  
EDWIN V. CHANDLER,—*Marshal.*

**BRITISH CONSULATE.***Established June 11th 1856.*

SIR ROBERT H. SCHOMBURGK, PHIL. DR. F. R. S. Corresponding Member  
of the R. G. S. L. &c.—*Consul. Appointed 1857.*

*Interpreter*, THOMAS GEORGE KNOX. Appt. July 7th. 1857.

*1st. Assistant*, HENRY ALABASTER. Appt. March 24th. 1859.

*2nd Assistant*, F. W. BARKER, absent on leave.

*Student Interpreter*. W. H. NEWMAN. *Acting 2nd Asst.* Appointed, July 1858.

do do C. J. CLARKE. Appointed. do do

*1st Constable*, JAMES DOW.

*2nd Constable*, MOIDEEN SERANG.

*Surgeon*, JAMES CAMPBELL, R.N.;—F.R.G.S.L. Appt. January, 29th 1857.

**FRENCH CONSULATE.***Established July 1856.*

COUNT DE CASTELNAU,—*Consul, Absent.*

*Chancellor*, MR. D' ISTRIA.

*1st Assistant*, VISCOUNT CASTELNAU.

*1st. Interpreter* REV. P. CLEMENCEAU.

*2nd. Interpreter*, P. NIU.

*1st. Constable*, VACANT.

*2nd Constable*, VACANT.

*3rd. Constable*, MANUEL FRANC.

**DANISH CONSULATE.***Established 1858.*

D. K. MASON,—*Consul.*

ROBERT HUNTER—*Interpreter.*

**HANSEATIC REPUBLIC CONSULATE.***Established October, 1858.*

THEODOR THIES,—*Consul.*

**SWEDISH & NORWEGIAN CONSULATE.**

PAUL PICKENPACK, *Acting Vice Consul.*



## NETHERLANDS CONSULATE.

*Established December 1860.*

PAUL PICKENPACK,—*Vice Consul.*

THEODOR THIES,—*Acting Vice Consul.*

## HARBOR MASTER, & MASTER ATTENDANT.

CAPTAIN JOHN BUSH.

C. C. SURIN *Clerk.*

## MERCHANTS & AGENTS, AT BANGKOK.

J. S. Parker & S. J. Goodale.

*Established April 1856.*

*Assistants & Clerks.*

P. A. DA COSTA.

TAN TAM CHUEN.  
CHECK ONG.

D. K. Mason & Co.

*Established 1856.*

D. K. MASON, & R. S. SCOTT,—*Partners.*

*Assistants & Clerks.*

J. S. G. CASWELL,

AH LIN  
TAN TEK ENG

Borneo Company "Limited"

*Established May, 1856.*

JOHN GUNN,—*Manager.*

*Other Establishments,*

London, Manchester, Singapore, Batavia, Sarawak, Calcutta.

*Assistants & Clerks.*

HERBERT BUCHANAN.  
CONRAD NEUBRONNER.

LEE BOON GEOK.

Agents to "LLOYDS", and to the

FIRST AND SECOND NETHERLANDS INDIA SEA, & FIRE INSURANCE COMPANIES.

## Remi Schmidt & co.

*Established 1857.*

*Other Establishments,*

London, Shanghai, Kanagawa (Japan), and Tien-tsin.  
 ST. CYR. JULLIEN & WM. SPENCER.—*Managers.*  
 S. D. BARROS.—*Assistant.*

## Pickenpack Thies & co.

*Established January 1st 1858.*

PAUL PICKENPACK & THEODOR THIES,—*Partners.*

*Assistants and Clerks.*

GEORGE. A. FINCK.  
 G. WETTERN.

M. C. CORDEIRO.

## A. Markwald & co.

*Established 1858.*

A. MARKWALD, & P. LESSLER,—*Residents.*

Agents for "THE HAMBURG, DRESDEN & BREMEN UNDERWRITERS"

*Assistants & Clerks.*

J. F. CORDEN.  
 E. ALEXANDER.  
 J. M. F. DA COSTA.  
 P. de JESUS.

RICHARD HENDRICKS.  
 J. KEAN SENG.  
 Y. CHENG BEE.  
 AH SENG

## A. M. Odman & co.

*Established 1860.*

ALEXANDER M. ODMAN,—*Resident Partner.*

*Clerks.*

J. W. GRENON.

EMELIO A. MOOR.

## L. MALHERBE & Co.

*Established 1861.*

L. MALHERBE,—*Resident Partner.*

L. M. XAVIER—*Assistant.*

## PAUL SCHILL.

*Established 1861.*

# Mussulman Merchants.

At the Mussulman Square.

IN THE ORDER OF THEIR ROOMS IN THE WHITE HOUSES FROM THE RIVER ON THE LEFT HAND,

GOING ROUND TO THE RIGHT HAND SIDE OF THE SQUARE.

|                      |                        |
|----------------------|------------------------|
| Mähämäd Ishmail      | Mähämäd Arraff         |
| Nänla bai            | Abdool Ally Issödbai   |
| Kaimalee Goolamali   | Harsäm Esoff           |
| Harsem Goolah Hoosen | Mähämäd Goshe          |
| Nakodah Ajim Bawnea  | Mähämäd Aboo           |
| Abdool Teeap         | Ibrahim Mähämäd        |
| Abdool Hoosen        | Bäwah Mähämäd Hoosen   |
| Ibraheel Ishmail     | Goolah Mähämäd Ishmail |

AT THE RED HOUSE ABOVE THE SQUARE.

Nakodah Abdool Russool. Mähämäd Hoosen.

AT THE MOUTH OF THE CANAL ABOVE.

Nakodah Manchegee.

## CHINESE MERCHANTS.

A FEW OF THE PRINCIPAL.

*Those living on the West side of the River from the P'ra:k'lang's, Southward—*

|                        |                    |
|------------------------|--------------------|
| Chawsóóá Pan           | Chöönchoo Máhóóá   |
| Chawsóóá P'öök         | Chawsóóá Kéngsooa  |
| Chöön-choo F'ák        | Chawsóóá Kéngyöök  |
| P'áya P'ísán           | Ch'awsóóá Eám      |
| P'áw K'ín              | Ch'awsóóá Kwangsèw |
| Check Yööséng          | Ch'öönch'oo P'ow   |
| Ch'awsóóá Ch'een Ch'aa | Ch'awsóóá Két      |
| Ch'awsóóá Low Ch'aa    | Akawn Nóó          |
| Ch'öönchoo Choo        | Akawn Mööt         |
|                        | Chawsóóá One       |

*Those living on the East side of the River from a point opposite to the P'ra:k'lang's Southward—*

|                    |                  |
|--------------------|------------------|
| Chawsóóá Yim       | Chawsóóá Toh     |
| Akawn Kééan        | Chawsóóá Oteepán |
| Chawsóóá Engkëep   | K'óóu Bangk'ím   |
| Chawsóóá P'awsooàn | K'óón Bantééan   |
| Akawn K'áw         | Lóóang Meitree   |

**AMERICAN STEAM RICE MILL COMPANY.**S. P. GOODALE, & MICHAEL GURVEY,—*Partners.**Assistants.*JOHN F. ODELL.  
SAMUEL WRIGHT.  
JAMES A. MOORE.ALONZO MOORE.  
& NATIVE, *Assistants.**Established October, 1858***A. M. ODMAN & Co's RICE MILL.**

G. B. HALL ENGINEER.

AND

**SAW MILLS.**

JAMES DYER ENGINEER.

**The Bangkok, Paknam, & Menam Bar.****MAIL AND REPORT AGENCY.**LEONARD,—*Proprietor.*

The Report Boat leaves Paknam and the Bar daily. From Bangkok the Boat leaves the residence of Capt. WHITE, at 8½ o'clock every morning. Letters and Packages will be delivered to Vessels at the Bar, every day. Passage to and from the Bar, \$5. Letters for non-subscribers, \$1. Special Boats to and from the Bar, \$10. Ship supplied with stock at short notice.

**Bangkok Branch Pilots.**JAMES COOK.  
JOHN SMITH.  
ATKINS DYER.JOHN JACKSON.  
W. RADCLIFFE.**SHIP CHANDLERS &c.****Virgin & co.***Established March 1st 1861.*

SHIP CHANDLERS, AUCTIONEERS.

AND COMMISSION AGENTS,

SITUATED NEAR THE ROMAN CATHOLIC CHURCH, KAWKWAJ.

## H. S. Achue & co.

AUCTIONEERS, SHIP CHANDLERS, GENERAL COMMISSION AGENTS.

SITUATED A LITTLE BELOW THE BRITISH AND FRENCH CONSULATES,  
ON THE OPPOSITE BANK OF THE RIVER.

THOMAS A. CHUNE,—*Partner.*

WM. SCHRODER, *Clerk.*

*Established August 1st 1859.*

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## Towing & Lightering.

### STEAMER "JACK WATERS"

*Barges.*

|             |            |
|-------------|------------|
| ENTERPRISE. | COQUILLE.  |
| CONCHA.     | DESDEMONA. |
| D'ALMEIDA.  |            |

CHARLES G. ALLEN,—*Proprietor.*

THOMAS MILLER,—*Agent.*

WILLIAM WEST,—*Captain of Str.* | OSCAR JACKSON,—*Engineer.*

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## CLYDE DOCK-YARD.

DANIEL MACLEAN SHIP BUILDER,

*Established. 1855*

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## Boarding Houses.

CAPTAIN JAMES WHITE,—*Proprietor.*

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CARTER & HOWARD—*Proprietors.*

---

G. W. THOMAS—*Proprietor.*

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LEWIS—*Proprietor.*

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**A LIST OF SIAMESE SQUARE RIGGED SAILING VESSELS,**  
*From the Beginning.*

| Siamese Name       | English Name  | Rig      | When Built | When Purchd. | Lost | Tonnage | Owners                     |
|--------------------|---------------|----------|------------|--------------|------|---------|----------------------------|
| Syng tai           | Advance       | Barque   | "          | -            | -    | 250     | Chawsóóá Angkeeat          |
| Héng Séng          | Syng tai      | Lugger   | "          | -            | -    | 300     | "                          |
|                    | Iron Duke     | Barque   | "          | -            | -    | 300     | " Kwangséw                 |
|                    | Rapid         | do       | "          | -            | -    | 450     | " Lów Chaa                 |
|                    | Hope          | do       | -          | 1855         | -    | 330     | " Sáwn                     |
|                    | Sea Forth     | do       | -          | -            | -    | 450     | Sómdeēt Ong Nāwi           |
|                    | Eliza Jane    | do       | 1855       | -            | -    | 400     | Chawsóóá P'ow              |
| P'óót tá slughat   | Metropolis    | do       | -          | -            | 1858 | 400     | P'āya P'ísan               |
| Séc rāt tānā kosin | Cruizer       | Ship     | 1855       | -            | -    | 400     | 2nd King                   |
|                    | Bangkok Mark  | do       | "          | -            | -    | 700     | 1st "                      |
|                    | Star Cross    | Schooner | "          | -            | -    | 40      | Chawsóóá Fāk               |
|                    | Daring        | do       | "          | -            | -    | 60      | T. Achune                  |
|                    | Walter        | Barque   | -          | 1856         | -    | 280     | P'rā Nai Sāwráp'ēt P'ākder |
|                    | Bantek        | do       | -          | "            | -    | 518     | P'āya P'ísan               |
|                    | Alexander     | Brig     | -          | "            | -    | 200     | Chawsóóá Cheen Sóo         |
|                    | St. George    | Barque   | -          | -            | -    | 400     | " P'ow                     |
| Hengléé            | Shooting Star | Ship     | 1856       | -            | -    | 850     | P'āya P'ísan               |
| Sin sin yóó Chín   | Kim Hong Seng | Barque   | 1856       | -            | -    | 900     | Chawsóóá Otecan            |
| Bán Sóón           | Falcon        | Schooner | -          | -            | -    | 100     | 2nd King                   |
|                    | Conquaror     | Ship     | -          | -            | -    | 800     | Chawsóóá Chóón Choo        |
|                    | Kim Yóóg Heen | Lugger   | 1857       | -            | -    | -       | P'āya Ch'o Dūk             |
|                    | Pāk Kalan     | do       | "          | -            | -    | -       | 1st King                   |
|                    | Envoy         | do       | "          | -            | -    | 400     | Chawsóóá Kwangséw          |
|                    | Morning Star  | Barque   | "          | -            | -    | 50      | Fāk                        |
|                    | Kim Hong tai  | Schooner | -          | -            | -    | 350     | " Otecan                   |
|                    | Antelope      | do       | -          | -            | -    | 300     | P'āya móntree              |

## A LIST OF SIAMESE SQUARE RIGGED SAILING VESSELS,

*From the Beginning.*

| Siamese Name   | English Name    | Rig      | When Built | When Purchd. | Lost | Tonnage | Owners             |
|----------------|-----------------|----------|------------|--------------|------|---------|--------------------|
| Sim Yóo Cheen  | St. Paul        | do       | 1856       | 1857         | -    | 350     | Chawsóóá Yim       |
| Ngoóng tie     | Four Stars      | do       | -          | -            | -    | 280     | " Cheen Sóo        |
|                | Sophia          | do       | 1857       | 1857         | -    | 324     | " K'áo             |
| Galang Kom Kai | Galang Kom Kai  | Lugger   | 1858       | -            | -    | 200     | P'áya Ch'ó duk     |
|                | Lucky Star      | Barque   | 1858       | -            | -    | 450     | Chawsóóá Cheen Sée |
| Ang Sèng       | City of Ayuthia | Ship     | "          | -            | -    | 690     | Króm Lóóáng Wóngsá |
|                | Kim Sim Soon    | Barque   | -          | -            | -    | -       | Chawsóóá Ang Keat  |
| Singlee        | Contest         | Ship     | 1858       | -            | -    | 500     | " Keng Sóóá        |
|                | Ty-Wat          | Lugger   | "          | -            | -    | -       | " Taw Fow          |
|                | Fortuna         | Barque   | "          | -            | -    | 360     | P'áya P'ei Boon    |
|                | Race Horse      | do       | "          | -            | -    | -       | Króm Lóóáng Wóngsá |
| Angk'é         | Africa          | do       | -          | -            | -    | -       | P'áya P'ei Boon    |
|                | Resolute        | do       | -          | 1858         | -    | 935     | Chawsóóá Toh       |
|                | August          | do       | 1859       | -            | -    | 220     | " Yim              |
|                | Prospero        | Brig     | -          | 1859         | -    | 176     | " "                |
|                | Constitution    | Barque   | -          | "            | -    | 382     | Króm Lóóáng Wóngsá |
|                | Star Queen      | Ship     | -          | 1859         | -    | 445     | Chawsóóá Fák       |
|                | Marie           | Barque   | 1859       | -            | 1860 | 253     | Króm Lóóáng Wóngsá |
|                | Amy Douglas     | do       | -          | 1859         | -    | -       | Cheen Sóó          |
|                | Norfolk         | Brig     | -          | -            | -    | 120     |                    |
|                | Kim Hong Sing   | Barque   | -          | -            | -    | 400     |                    |
|                | Resolution      | -        | 1860       | -            | -    | 850     | Chawsóóá Toh       |
|                | Kossuth         | Schooner | -          | 1860         | -    | 130     | " "                |
|                | Tubal Cain      | Brig     | -          | 1860         | -    | 200     | " "                |
|                | Siamese Crown   | Ship     | 1861       | -            | -    | 1000    | 1st King           |
|                | Telegraph       | Barque   | 1861       | -            | -    | 400     | Króm Lóóáng Wóngsá |
|                | Seaman's Bride  | do       | 1861       | -            | -    | 300     | Lóóáng Meitree     |



## LIST OF SIÁMESE STEAM BOATS.

From the Beginning.

| Siamese Name           | English Name       | Class  | Length | Width | When built | Owners                    |
|------------------------|--------------------|--------|--------|-------|------------|---------------------------|
| Sáyám wawrá sǒmp'ón    | Royal Seat         | Paddle | 75     | 20    | 1855       | The 1st King              |
| Wáhón sáw-rá-dét       | - - -              | Paddle | 60     | 10    | 1857       | do                        |
| Awrá t'ét kit chákán   | - - -              | Paddle | 55     | 8     | "          | do                        |
| Chónk'án mawrák'á-móók | - - -              | do     | 55     | 8     | "          | do                        |
| Róokrát p'eiree        | Enemy Chaser       | Screw  | 80     | 29    | "          | do                        |
| Mánee mék'á'á          | Ocean Goddess      | Paddle | 116    | 15    | 1858       | do                        |
| Máhá p'íoh'eiyá t'ép   | Illustrious Conqr. | Screw  | 120    | 18    | "          | do                        |
| Sǐp sáwát dímeitree    | Little Eastern     | Paddle | 00     | 15    | "          | do                        |
|                        | - - -              | Screw  | 90     | 15    | "          | do                        |
| Asá wádee rǒt          | Sherry Wine        | do     | 120    | 18    | "          | The 2nd King              |
| T'áp t'ím mánee        | - - -              | Paddle | 90     | 12    | "          | do                        |
| T'íp p'áat prásin      | Sea Serpent        | Screw  | 60     | 10    | "          | Króm Lóóang Wǒngsá        |
| Sénín t'áá prádít      | Meteor             | do     | 120    | 16    | 1858       | Prime Minister            |
| Rit'í raangsáwn        | Arrow              | Paddle | 85     | 11    | 1859       | do                        |
| Chawrák'è              | Alligator          | Screw  | 200    | 27    | "          | P'áya P'ísán              |
| Chów Phya              | Chów Phya          | do     | 205    | 28    | "58        | Chawsóóá Yim              |
|                        | Lightning          | Paddle | 95     | 11    | 1859       | Króm Lóóang Wǒngsá        |
|                        | - - -              | do     | 85     | 11    | "          | Króm mǐn wíssá nóónát     |
|                        | - - -              | do     | -      | -     | "          | P'áya móntree             |
|                        | Zephyr             | do     | -      | -     | "          | P'rǎ nai wei              |
|                        | - - -              | do     | -      | -     | "          | P'áya wawráp'óng p'í p'át |
|                        | - - -              | do     | -      | -     | "          | P'áya sǎng k'á            |
| Loèw loi wéhón         | Volant             | do     | -      | -     | 1860       | Prime Minister            |
|                        | Visct. Canning     | Screw  | -      | -     | 1861       | P'áya P'ísán              |

**ARTICLES OF MERCHANDISE,  
THE DUTIES PAID ON EACH,  
AND THE SEASONS WHEN THEY ARE GENERALLY MOST ABUNDANT.**

The undermentioned Articles are entirely free from Inland or other Taxes on production or transit, and pay Export Duties as follows.

|                        | Per picul | Ticals | Satang | Puang       | WHEN PLENTY.      |
|------------------------|-----------|--------|--------|-------------|-------------------|
| 1. Nga-ch'ang          | -         | 10     | 0      | 0           | August to January |
| 2. Rông                | -         | 6      | 0      | 0           | "                 |
| 3. Nawtâmât            | -         | 50     | 0      | 0           | "                 |
| 4. Kráwan              | -         | 14     | 0      | 0           | January to April  |
| 5. Rêo                 | -         | 6      | 0      | 0           | "                 |
| do bastard             | -         | -      | -      | -           | February to June  |
| 6. Háwi-mêng-p'òò      | -         | 1      | 0      | 0           | "                 |
| 7. K'òn-nòk-krát'òong  | -         | 2      | 0      | 0           | "                 |
| 8. Mâk hàng            | -         | 1      | 0      | 0           | All seasons       |
| 9. Krâk-k'éé           | -         | 0      | 2      | 0           | "                 |
| 10. Hóó pla k'áo       | -         | 6      | 0      | 0           | "                 |
| 11. Hóó pla dâm        | -         | 3      | 0      | 0           | "                 |
| 12. P'ón krâbow        | -         | 0      | 2      | 0           | January to March  |
| 13. Háng nòk yòong     | -         | 10     | 0      | 0           | January to April  |
| 14. Kráðòók k'o        | -         | 3      | 0      | 0           | June to October   |
| 15. Náng ràt           | -         | 0      | 2      | 0           | "                 |
| 16. Náng nòw           | -         | 0      | 1      | 0           | "                 |
| 17. Ok tów             | -         | 1      | 0      | 0           | February to May   |
| 18. Kráðawng táp'apnâm | -         | 1      | 0      | 0           | "                 |
| 19. P'ing t'áilê       | -         | 3      | 0      | 0           | "                 |
| 20. Káp'aw: pla        | -         | 3      | 0      | 0           | April to August   |
| 21. Ráng nòk k'ón      | -         | -      | -      | -           | "                 |
|                        |           |        |        | 20 per cent |                   |

ARTICLES OF MERCHANDISE. *Continued.*

|                      | Per picul                  | Ticals | Saung | Per 100 | WHEN PLENTY.      |
|----------------------|----------------------------|--------|-------|---------|-------------------|
| 22. Pèek nók krátén  | Kingfisher feathers        | 6      | 0     |         | July to October   |
| 23. Sééséat          | Cutch                      | 0      | 2     | 0       | "                 |
| 24. Béchée           | Beychee seed (Nux. Vomica) | 0      | 2     | 0       | "                 |
| 25. P'òong-'àlái     | Pungtalai seed             | 0      | 2     | 0       | July to November  |
| 26. Kámýan           | Gum Benjamin               | 4      | 0     | 0       | "                 |
| 27. P'hrák-hángléi   | Angrai bark                | 0      | 2     | 0       | "                 |
| 28. N'ya-mei         | Agilla wood                | 2      | 0     | 0       | January to March  |
| 29. Náng krábén      | Ray skins                  | 3      | 0     | 0       | July to October   |
| 30. K'ów kwang kää   | Old deer horns             | 0      | 1     | 0       | February to April |
| 31. K'ów kwang áwn   | Soft or young horns        | 1      | 0     | 0       | "                 |
| 32. Náng kwang       | Deer hides, fine, "        | 8      | 0     | 0       | "                 |
| 33. Náng sai         | Ditto common "             | 8      | 0     | 0       | January to March  |
| 34. En n'ya          | Deer sinews                | 4      | 0     | 0       | June to August    |
| 35. Náng k'ó kráb'ur | Buffalo and cow hides      | 1      | 0     | 0       | "                 |
| 36. Krádóók ch'ang   | Elephant bones             | 1      | 0     | 0       | January to May    |
| 37. Krádóók súa      | Tiger bones                | 5      | 0     | 0       | "                 |
| 38. K'ów kráb'ur     | Buffalo horns              | 0      | 1     | 0       | "                 |
| 39. Náng ch'ang      | Elephant hides             | 0      | 1     | 0       | "                 |
| 40. Náng Súa         | Tiger skins per skin       | 4      | 0     | 0       | "                 |
| 41. Kiét liú         | Armadillo skins            | 1      | 0     | 0       | "                 |
| 42. K'ràng           | Sucklac                    | 1      | 1     | 0       | October to March  |
| 43. Pán-bei          | Hemp                       | 1      | 2     | 0       | January to April  |
| 44. Pla-hàng         | Driedfish, Pla-hàng        | 1      | 2     | 0       | "                 |
| 45. Pla-bei mei      | do Plasalit                | 1      | 0     | 0       | "                 |
| 46. Fáng             | Sapan-wood                 | 0      | 2     | 0       | "                 |
| 47. N'ya k'em hàng   | Salt meat                  | 2      | 0     | 0       | January to August |
| 48. P'hrák-pálong    | Mangrove bark              | 0      | 1     | 0       | "                 |
| 49. Mei-daang        | Rose-wood                  | 0      | 2     | 0       | All seasons       |

# ARTICLES OF MERCHANDISE *Continued.*

|                                                                                                                                 | Per picul                    | Tola | Saiung | WHEN PLENTY.          |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------|------|--------|-----------------------|
| 50. Mei-dâm                                                                                                                     | Ebony                        | 1    | 1      | All seasons           |
| 51. K'òv-sán                                                                                                                    | Rice, per Coyan              | 4    | 0      | January to August     |
| <p>THE UNDER MENTIONED ARTICLES BEING SUBJECT TO THE INLAND OR TRANSIT DUTIES HEREIN NAMED, ARE EXEMPT FROM EXPORT DUTY-VIZ</p> |                              |      |        |                       |
| 52. Nântan-sei k'áo                                                                                                             | Sugar, White                 | 0    | 2      | February to May       |
| 53. Nântan-sei daang                                                                                                            | do Red                       | 0    | 1      | "                     |
| 54. F'ai-mét, F'ai-bót,                                                                                                         | Cotton cleaned and uncleaned | 0    | 0      | June to July          |
| 55. P'rik-t'ei                                                                                                                  | Pepper                       | 1    | 0      | April to July         |
| 56. Pla-t'oo                                                                                                                    | Salt fish, Platoo            | 0    | 0      | September to February |
| 57. T'òóá                                                                                                                       | Beans and peas               | 1    | 0      | September to April    |
| 58. K'òng-hàng                                                                                                                  | Dried Prawns                 |      |        | March to May          |
| 59. Nga-met                                                                                                                     | Teel-seed                    |      |        | February to May       |
| 60. MéiLao                                                                                                                      | Silk, raw                    |      |        | November to January   |
| 61. K'ée-p'ùng                                                                                                                  | Bees-wax                     |      |        | April to June         |
| 62. K'ée-n'ũa                                                                                                                   | Tallow                       | 1    | 0      | April to August       |
| 63. K'ư                                                                                                                         | Salt, per Coyan              | 6    | 0      | February to May       |
| 64. Ya-s'òp                                                                                                                     | Tobacco                      | 1    | 2      |                       |

NOTE The compiler would not be understood to affirm positively in the above statements touching the seasons, when the several articles of merchandise are most plentiful. He does not think that they will in every instance be found to be correct. Though they may have been so the past year, they will in all probability be found to vary in several particulars, as the times & seasons vary. But he trusts that the statements will be found of good service for a general guide on the subject.

SCHEDULE OF TAXES ON GARDEN-GROUND, PLANTATIONS,

OR OTHER LANDS.

SECTION. 1.—Trenched or Raised Lands planted with the following eight sorts of Fruit-trees, are subject to the long assessment, which is calculated on the trees grown on the Land (and not on the land itself); and the amount to be collected annually by the proper officers, and paid by them into the Royal Treasury, is endorsed on the Title Deeds or official certificate of tenure.

1. BETEL-NUT TREES.

1st class. *Mak ek*, height of Stem from three to four fathoms, pay per tree, 138 Cowrie.  
 2nd class. *Mak to*, height of Stem from five to six fathoms, pay per tree 128 Cowries.  
 3rd class. *Mak tri*, height of Stem from seven to eight fathoms pay per tree 118 do  
 4th class. *Mak pakarai*, trees just commencing to bear, pay per tree 128 Cowries.  
 5th class. *Mak lek*, height of Stem from one Sok, and upwards to size of 4th class,  
 pay per tree, . . . . . 50 Cowries.

2. COCOA-NUT TREES.

Of all sizes, from one Sok and upwards, in height of stem, pay per three trees.  
 1 Salung.

3. SIRI VINES.

All sizes, from 5 Sok in height and upwards, pay per tree or pole when trained on Tonglang trees, . . . . . 200 Cowries.

4. MANGO TREES.

Stem of 4 Kam in circumference at the height of three Sok from the ground, or from that size and upwards, pay per tree, . . . . . 1 Fuang.

5. MAPRANG TREES.

Are assessed at the same rate as Mango Trees.

6. DURIAN TREES.

Stem of 4 Kam in circumference at the height of three Sok from the ground, or from that size and upwards, pay per tree, . . . . . 1 Tical.

7. MANGOSTEEN TREES.

Stem of 2 Kam in circumference at the height of 1 and a half Sok from the ground, pay per tree, . . . . . 1 Fuang.

8. LANGSAT TREES.

Are assessed at the same rate as Mangosteen Trees.

NOTE—The long assessment is made under ordinary circumstances once only in each reign, and plantations or Lands having once been assessed at the above mentioned rates, continue to pay the same annual sum, which is endorsed on the certificate of Tenure, (subject to the revisions granted in case of the destruction of the trees by drought or flood) until the next assessment is made, regardless of the new tree that may have been planted in the interval, or the old trees that may have died off. When the time for a new assessment arrives, a fresh account of the trees is taken, those that have died since the former one being omitted, and those that have been newly planted being inserted, provided they have attained the above stated dimensions: otherwise they are free of charge.

SECTION 2.—Trenched or raised Lands planted with the following eight sorts of Fruit-trees are subject to an annual assessment calculated on the Trees grown on the Lands in the following manner, that is to say:—

## 1. ORANGE TREES.

Five kinds (som-kio-wan, som-pluak-bang, som-teparot, som-kao, som-o) stem of 6 News in circumference, close to the ground, or from that size and upwards, pay per 10 trees, 1 Fuang.

All other kinds of Orange trees of the same size as the above pay per 15 trees, 1 Fuang.

## 2. JACK-FRUIT TREES.

Stem of 6 Kam in circumference at the height of 2 Sok from the ground, or from that size and upwards, pay per 15 trees, 1 Fuang.

## 3. BREAD FRUIT TREES

Are assessed at the same rate as Jack-fruit Trees.

## 4. MAFAI TREES.

Stem of 4 Kam in circumference at the height of 2 Sok from the ground, or from that size and upwards, pay per 12 trees, 1 Fuang.

## 5. GUAVA TREES.

Stem of 2 Kam in circumference at the height of one Kup from the ground, or from that size and upwards, pay per 12 trees, 1 Fuang.

## 6. SATON TREES.

Stem of 6 Kam in circumference at the height of 2 Sok from the ground, or from that size and upwards, pay per 5 trees, 1 Fuang.

## 7. RAMBUTAN TREES.

Stem of 4 Kam in circumference at the height of 2 Sok from the ground, or from that size and upwards, pay per 5 trees, 1 Fuang.

## 8. PINE—APPLES.

Pay per 1,000 Plants, 1 Salung & 1 Fuang.

SECTION 3.—The following six kinds of Fruit trees, when planted in trenched or untrenched lands, or in any other manner than as plantations subject to the long assessment described in Section 1, are assessed annually at the undermentioned rates:

|                |                   |                                |                       |
|----------------|-------------------|--------------------------------|-----------------------|
| Mangoes,       | 1 Fuang per tree. | Plantains,                     | 1 Fuang per 50 roots. |
| Tamarinds,     | 1 Do. 2 trees.    | Siri Vines (trained on poles), | 1 Do. 12 vines.       |
| Custard Apples | 1 Do. 20 trees.   | Pepper Vines,                  | 1 Do. 12 vines.       |

SECTION 4.—Trenched or raised Lands planted with annuals of all sorts, pay a Land tax of One Salung and One Fuang per Rai for each crop.

An annual fee of Three Salungs and One Fuang is also charged by the Nairawang (or Local Tax Collector) for each lot or holding of trenched land for which an Official Title or Certificate of Tenure has been taken out.

When held under the Long Assessment and planted with the eight sorts of Fruit-trees described in Section 1, the annual Fee paid to the Nairawang for each lot or holding of Trenched Land, for which an Official Title or Certificate of Tenure has been taken out, is Two Salungs.

SECTION 5.—Untrenched or Low Lands planted with annuals of all sorts pay a Land Tax of One Salung and One Fuang per Rai for each crop.

No land tax is levied on those lands if left uncultivated.

Sixty Cowries per Tical are levied as expenses of testing the quality of the Silver, on all sums paid as Taxes under the long assessment. Taxes paid under the annual assessment are exempted from this charge.

Lands having once paid a tax according to one or other of the above mentioned rates, are entirely free from all other taxes or charges.

# PILOT REGULATIONS

FOR THE

## PORT OF BANGKOK.

### PILOT BOATS.

**ARTICLE I.** Pilot Boats shall carry a distinguishing Flag at the Mast-head, or other equally conspicuous situation; such Flag to be of large dimensions, compared with the size of the Boat or Ship carrying the same, and to be of two colors; the upper horizontal half, White, and the lower half, Red.

### PILOT LICENSES.

**ARTICLE II.** Every Pilot on his appointment shall receive a License, signed and sealed by the Harbor Master, containing his name, and usual place of abode, together with a description of his person, and a specification of the limits within which he is qualified to act.

**ARTICLE III.** Every Licensed Pilot shall upon receiving his License, be furnished with a copy of these regulations, established within the district for which he is Licensed, and he shall produce such copy to the Master of any Ship, or other person employing him, when required to do so, under a penalty, in case of default, not exceeding twenty-five dollars (\$25.)

**ARTICLE IV.** Every Licensed Pilot while acting in that capacity, shall be provided with his License, and produce the same to every person by whom he is employed, or to whom he tenders his service as Pilot, and if he refuse to do so at the request of such person, he shall incur for each offense, a penalty not exceeding thirty dollars (\$30,) and shall be subject to suspension, or dismissal by a Court of enquiry.

**ARTICLE V.** The number of Licensed Pilots shall be limited to six (6).

**ARTICLE VI.** A Pilot Court shall consist of the Harbor Master, the Consul for the Nation to which the Vessel concerning which the question has arisen belongs, and a competent Ship Master, to be called by the Pilot.

### RIGHTS, PRIVILEGES, AND REMUNERATIONS OF PILOTS.

**ARTICLE VII.** If any Boat or Ship, having a Pilot on board, lead any Ship which has not a Pilot on board, when such last mentioned Ship cannot, from particular circumstances be boarded, the Pilot so leading such last mentioned Ship, shall be entitled to such pilotage as may be agreed upon for the distance run, as if he had actually been on board, and had charge of such Ship.

**ARTICLE VIII.** Any Pilot who shall have taken charge of any Ship, and shall wait on board for the space of three days, while such Ship may be detained for the want of seamen or other casualty, five dollars (\$5) per day shall be paid to him for such detention, over and above his pilotage.

**ARTICLE IX.** No Pilot except under circumstances of unavoidable necessity, shall without his consent, be taken to sea, or beyond the limits for which he is Licensed, in any Ship whatever.

And every Pilot so taken under circumstances of unavoidable necessity, or without his consent, shall be entitled over and above his pilotage, to the sum of five dollars (\$5) per day, to be computed from, and inclusive of the day on which such ship passed the limit to which he was engaged to pilot her, and inclusive of the day of his being returned in the said ship to the place where he was taken on board, or up to, and inclusive of such day, as will allow him, if discharged from the ship, sufficient time to return thereto; and in such last mentioned case, he shall be entitled to his reasonable travelling expenses.

**ARTICLE X.** Any person assuming to act as Pilot, or continuing in the charge of any ship after a Licensed Pilot has offered to take charge of her, or using a License which he is not entitled to use, for the purpose of making himself appear to be a licensed Pilot, shall for each offence incur a penalty not exceeding two hundred dollars (\$200).

**ARTICLE XI.** Pilots are not allowed to leave any ship in the River after arrival at the Town, until such Ship shall be properly moored, under a penalty of fifty dollars (\$50); and no Pilot shall leave any ship outwards, until at least two miles outside the Bar, under a penalty of fifty dollars (\$50).

**ARTICLE XII.** All Pilots on their arrival at Bangkok, shall book themselves at the Harbor Master's Office.

**ARTICLE XIII.** All applications for Pilots to be made at the Harbor Master's Office, at least twenty four hours before the departure of any vessel.

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## OFFENCES OF PILOTS.

**ARTICLE XIV.** If any Licensed Pilot commit any of the following offences, that is to say;—

Is in any way directly or indirectly concerned in any corrupt practices relating to Ships, their Tackle, or Furniture, or Cargoes, Crew, or Passengers, or to persons in distress at sea, or their Moneys, Goods, or Chattels;—

**ARTICLE XV.**—Lends his License;—

**ARTICLE XVI.**—Acts as Pilot while suspended;—

**ARTICLE XVII.**—Acts as Pilot while in a state of Intoxication;—

**ARTICLE XVIII.**—Refuses or wilfully delays, when not prevented by illness or other reasonable cause, to take charge of any Ship within the limits of his License, upon the signal for a Pilot being made by such Ship, or upon being required to do so by the Master thereof, or by the Harbor Master;—

**ARTICLE XIX.**—Unnecessarily cuts or slips, or causes to be cut or slipped, any cable belonging to any Ship, or causes any damage by neglect of duty;—

**ARTICLE XX.**—Refuses on the request of the Master, to conduct the Ship of which he has charge, into any place into which he is Licensed to conduct the same, except on reasonable grounds of danger to the Ship;—

**ARTICLE XXI.**—Quits the Ship of which he has the charge, without the consent of the Master before the service for which he was hired has been performed;—



ARTICLE XXII.—He shall for each offence, in addition to any liability for damage at the suit of the persons so aggrieved, incur a penalty not exceeding one hundred dollars, and be liable to suspension or dismissal.

## RATES OF PILOTAGE.

From the Bar to Bangkok, and From Bangkok to outside the Bar to a safe Anchorage, inclusive;—

All Ships of 150 Tons and under, shall pay fifty dollars: over 150 Tons and under 200 Tons, sixty dollars: over 200 Tons and under 300 Tons, seventy dollars: over 300 Tons and under 400, seventy five dollars: over 400 Tons and under 500 Tons, eighty dollars: all over 500 Tons, eighty five dollars.

## DISTANCES ON BANGKOK RIVER.

Table of distances from the anchorage to the South of the Bar of "Menam Chow Phya" or Bangkok river, to diverse points and localities between the same and the Fort on the northern entrance of Klawng K'oot Mei; according to the Survey of H. B. M. S. Saracen, under the command of Mr. John Richards R. N.

The nautical mile has been taken at the rate of 6020 feet English, equal to 1008  $\frac{1}{8}$  fathoms. The distances are given in miles and tenths of a mile.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | M.   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| From the anchorage of "sea going vessels" during the South Western Monsoon to the Southern edge of the Bar,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2.0  |
| (During the North Eastern Monsoon the anchorage is further to the east, distant about 3 miles from the bar.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |
| Distance across the Bar,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.6  |
| From the northern edge of the Bar to the Fishing stakes,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.1  |
| Ditto to the Red House, following the course indicated in the Chart.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 4.0  |
| Distance made from the anchorage,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7.7  |
| From the Red House to Paknam,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2.8  |
| From Paknam to lower Paklat (Paklat Lang)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5.0  |
| From lower Paklat following the course of the river,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9.4  |
| viz. to the lower outlet of the old canal,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.9  |
| from thence to Burmese village,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1.3  |
| " " to upper entrance of the old canal,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.5  |
| " " to upper Paklat (Paklat Bon),                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.2  |
| Distance made from anchorage to upper Paklat.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 24.9 |
| ☞ The distance between Paklat Lang and Paklat Bon, following the Canal for boats, is only 1.8 miles, and by the old canal, from outlet to entrance, $\frac{4}{10}$ tenths of a mile. The latter communication can only be used (even for boats) about the time of high water.                                                                                                                                                                                                                                                                                                                                                                          |      |
| From Paklat Bon or upper Paklat, to the Presbyterian Mission,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8.3  |
| Distance made from the anchorage,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 28.2 |
| ☞ On the left bank of the river, nearly opposite the Presbyterian Mission, is the United States Consulate; and a little further on, the Dock of Mr. Maclean.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |
| From the Presbyterian Mission to the Protestant Cemetery,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.5  |
| From thence to K'awk k'wai, the situation of the Hanseatic Consulate & Borneo Co. Limited                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.6  |
| " " to the R. C. Cathedral and the Residence of the Bishop                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 0.6  |
| " " to the lower entrance of K'lawng K'oot Mei,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.2  |
| Distance made from the anchorage,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30.1 |
| ☞ Within the latter distance, namely, from the R. C. Cathedral to K'lawng K'oot Mei, are situated, following the river upward on its left bank, the Establishment of Remi Schmidt & Co. & the present residence of the French Consul, (formerly the Custom House). Somewhat higher up the river, the British, and the Portuguese Consulates, with the American Baptist Mission in the rear. The building now occupied as Custom house, is a little to the north of the Portuguese Consulate, on the Southern bank of K'lawng K'oot Mei. On the northern bank of the Canal is the Danish Consulate; and a little above it, the Portuguese R. C. Church. |      |
| From K'lawng K'oot Mei to the R. C. Church of Santa Cruz (on the right bank of the river),                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.5  |
| From thence to K'lawng Bang Looang,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.4  |
| ☞ On the northern bank, close to the entrance of this canal, is situated the Mission of the American Missionary Association.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |
| From K'lawng Bang Looang to the first King's Palace (on the left bank of the river,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.5  |
| Distance made from the anchorage,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 32.5 |
| From thence to the second King's Palace.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.5  |
| From thence to the northern entrance of K'lawng K'oot Mei.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.0  |
| The whole distance, from the anchorage, during the S. W. Monsoon, to the northern entrance of K'lawng K'oot Mei, is, following the river's course, (Nautical miles.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 34.0 |

## GENERAL REGULATIONS FOR FOREIGN TRADE.

### REGULATION I.

The master of every English ship \* coming to Bangkok to trade, must, either before or after entering the river, as may be found convenient, report the arrival of his vessel at the custom-house at Paknam, together with the number of his crew and guns, and the port from whence he comes. Upon anchoring his vessel at Paknam, he will deliver into the custody of the custom-house officers all his guns and ammunition, and a custom-house officer will then be appointed to the vessel, and will proceed in her to Bangkok.

### REGULATION II.

A vessel passing Paknam without discharging her guns and ammunition as directed in the foregoing regulation, will be sent back to Paknam to comply with its provisions, and will be fined 800 ticals for having so disobeyed. After delivery of her guns and ammunition, she will be permitted to return to Bangkok to trade.

### REGULATION III.

When a British vessel shall have cast anchor at Bangkok, the master, unless a Sunday should intervene, will, within four and twenty hours after arrival, proceed to the British Consulate, and deposit there his ship's papers, bills of lading, &c. together with a true manifest of his import cargo; and upon the Consul's reporting these particulars to the custom-house, permission to break bulk will at once be given by the latter.

For neglecting so to report his arrival, or for presenting a false manifest, the master will subject himself, in each instance, to a penalty of 400 ticals; but he will be allowed to correct within twenty-four hours after delivery of it to the Consul, any mistake he may discover in his manifest, without incurring the above-mentioned penalty.

### REGULATION IV.

A British vessel breaking bulk, and commencing to discharge before due permission shall be obtained, or smuggling either when in the river or outside the bar, shall be subject to the penalty of 800 ticals, and confiscation of the goods so smuggled or discharged.

### REGULATION V.

As soon as a British vessel shall have discharged her cargo, and completed her outward lading, paid all her duties, and delivered a true manifest of her outward cargo to the British Consul, a Siamese port-clearance shall be granted her on application from the Consul, who, in the absence of any legal impediment to her departure, will then return to the master his ship's papers, and allow the vessel to leave. A custom-house officer will accompany the vessel to Paknam; and on arriving there she will be inspected by the custom-house officer of that station, and will receive from them the guns and ammunition previously delivered into their charge.

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\* Note.—The regulations appended to the American Treaty, are the same as the above, which remark is also true in regard to all other nations which have since then made treaties with Siam.

## CUSTOM HOUSE REGULATIONS,

APPENDED TO THE BRITISH TREATY\*.

1. A Custom-house is to be built at Bangkok, [now erected and in operation] near to the anchorage, and Officers must be in attendance there between 9 A.M. and 3 P.M. The business of the Custom-house must be carried on between those hours. The tide-waiters required to superintend the landing or shipment of goods, will remain in waiting for that purpose from daylight until dark.

2. Subordinate Custom-house Officers shall be appointed to each ship; their number shall not be limited, and they may remain on board the vessel or in boats alongside. The Custom-house Officers appointed to the vessels outside the bar, will have the option of residing on board the ships, or of accompanying the cargo-boats on their passage to and fro.

3. The landing, shipment, or trans-shipment of goods may be carried on only between sunrise and sunset.

4. All cargo landed or shipped shall, be examined and passed by the Custom-house Officers within twelve hours of daylight after the receipt at the Custom-house of the proper application. The manner in which such application and examination is to be made, shall be settled by the Consul and the Superintendent of Customs.

5. Duties may be paid by British Merchants in Ticals, foreign Coin or Bullion, the relative values of which will be settled by the Consul and the proper Siamese Officers. The Siamese will appoint whomsoever they may please to receive payment of the Duties.

6. The Receiver of Duties may take from the merchants Two Salungs per catty of 80 Ticals for testing the money paid to him as Duties, and for each stamped receipt given by him for Duties he may charge Six Salungs.

7. Both the Superintendent of Customs and the British Consul, shall be provided with sealed sets of Balance Yards, Money Weights and Measures, which may be referred to in the event of any difference arising with the merchants as to the weight or dimensions of money or goods.

\* These regulations first made for British trade, have since been adopted for the trade of all other nations in treaty with Siam.

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## CHRONOLOGICAL TABLES.

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It is often found desirable to know on what day of the week any important event happened, or what day and year of the Siamese Era would correspond to any given day and year of the Christian Era, or the reverse. To a Foreigner residing in Siam, perhaps no question will be oftener put than one relating to his age, and especially as to the year of the cycle of 12 in which he was born. The Siamese also consider it highly important to know on what day of the week one was born. The following Tables have been carefully made with a view to the solution of these and similar problems. The manner of using them is explained in connexion with them.

## A TABLE OF COMPARATIVE DATES.

Showing the date on which each Siamese year commenced from A.D. 1768 to 1860.

An asterisk [\*] affixed to any year denotes that that year has an intercalary 8th month,  
 An obelisk [†] signifies that the 7th month has an intercalary day.  
 The figures in the column of Siamese years show the year of the cycle of Ten.

| Siamese Year<br>cycle   year | Siam.<br>Era | Commences on  | A. D. | Siamese Year<br>cycle   year | Siam.<br>Era | Commences on  | A. D. |
|------------------------------|--------------|---------------|-------|------------------------------|--------------|---------------|-------|
| 10 Ch'òòat *                 | 1130         | Sat. March 19 | 1768  | 7 K'òòn *                    | 1177         | Sat. March 11 | 1815  |
| 1 Ch'á'lóó                   | 1131         | Fr. April 7   | 1769  | 8 Ch'òòat                    | 1178         | Fr. March 29  | 1816  |
| 2 K'án                       | 1132         | Tu. March 27  | 1770  | 9 Ch'á'lóó *                 | 1179         | Tu. March 18  | 1817  |
| 3 T'aw: *                    | 1133         | Sat. March 16 | 1771  | 10 K'án                      | 1180         | M. April 6    | 1818  |
| 4 M'arong                    | 1134         | Fr. April 3   | 1772  | 1 T'aw: †                    | 1181         | Fr. March 26  | 1819  |
| 5 M'áséng †                  | 1135         | Tu. March 23  | 1773  | 2 M'arong *                  | 1182         | W. March 15   | 1820  |
| 6 M'ámecéä *                 | 1136         | S. March 13   | 1774  | 3 M'áséng                    | 1183         | Tu. April 3   | 1821  |
| 7 M'ámaa                     | 1137         | Sat. April 1  | 1775  | 4 M'ámecéä                   | 1184         | Sat. March 23 | 1822  |
| 8 W'áwk                      | 1138         | W. March 20   | 1776  | 5 M'ámaa *                   | 1185         | W. March 12   | 1823  |
| 9 R'áka *                    | 1139         | S. March 9    | 1777  | 6 W'áwk                      | 1186         | Tu. March 30  | 1824  |
| 10 Chaw †                    | 1140         | Sat. March 28 | 1778  | 7 R'áka *                    | 1187         | Sat. March 19 | 1825  |
| 1 K'òòn *                    | 1141         | Th. March 18  | 1779  | 8 Chaw †                     | 1188         | Fr. April 7   | 1826  |
| 2 Ch'òoat                    | 1142         | W. April 5    | 1780  | 9 K'òòn                      | 1189         | W. March 28   | 1827  |
| 3 Ch'á'lóó                   | 1143         | S. March 25   | 1781  | 10 Ch'òòat *                 | 1190         | S. March 16   | 1828  |
| 4 K'án *                     | 1144         | Th. March 14  | 1782  | 1 Ch'á'lóó                   | 1191         | Sat. April 4  | 1829  |
| 5 T'aw:                      | 1145         | W. April 2    | 1783  | 2 K'án †                     | 1192         | W. March 24   | 1830  |
| 6 M'arong †                  | 1146         | S. March 21   | 1784  | 3 T'aw: *                    | 1193         | M. March 14   | 1831  |
| 7 M'áséng *                  | 1147         | Fr. March 11  | 1785  | 4 M'arong                    | 1194         | S. April 1    | 1832  |
| 8 M'ámecéä                   | 1148         | Th. March 30  | 1786  | 5 M'áséng                    | 1195         | Th. March 21  | 1833  |
| 9 M'ámaa *                   | 1149         | M. March 19   | 1787  | 6 M'ámecéä *                 | 1196         | M. March 10   | 1834  |
| 10 W'áwk                     | 1150         | S. April 6    | 1788  | 7 M'ámaa †                   | 1197         | S. March 29   | 1835  |
| 1 R'áka †                    | 1151         | Th. March 26  | 1789  | 8 W'áwk *                    | 1198         | Fr. March 18  | 1836  |
| 2 Chaw *                     | 1152         | Tu. March 16  | 1790  | 9 R'áka                      | 1199         | Th. April 6   | 1837  |
| 3 K'òòn                      | 1153         | M. April 4    | 1791  | 10 Chaw †                    | 1200         | M. March 26   | 1838  |
| 4 Ch'òòat                    | 1154         | Fr. March 23  | 1792  | 1 K'òòn *                    | 1201         | Sat. March 16 | 1839  |
| 5 Ch'á'lóó *                 | 1155         | Tu. March 12  | 1793  | 2 Ch'òòat                    | 1202         | Fr. April 3   | 1840  |
| 6 K'án †                     | 1156         | M. March 31   | 1794  | 3 Ch'á'lóó                   | 1203         | Tu. March 23  | 1841  |
| 7 T'aw:                      | 1157         | Sat. March 21 | 1795  | 4 K'án *                     | 1204         | Sat. March 12 | 1842  |
| 8 M'arong *                  | 1158         | W. March 9    | 1796  | 5 T'aw:                      | 1205         | Fr. March 31  | 1843  |
| 9 M'áséng                    | 1159         | Tu. March 28  | 1797  | 6 M'arong *                  | 1206         | Tu. March 19  | 1844  |
| 10 M'ámecéä *                | 1160         | Sat. March 17 | 1798  | 7 M'áséng                    | 1207         | M. April 7    | 1845  |
| 1 M'ámaa †                   | 1161         | Fr. April 5   | 1799  | 8 M'ámecéä †                 | 1208         | Fr. March 27  | 1846  |
| 2 W'áwk                      | 1162         | W. March 26   | 1800  | 9 M'ámaa *                   | 1209         | W. March 17   | 1847  |
| 3 R'áka *                    | 1163         | S. March 15   | 1801  | 10 W'áwk                     | 1210         | Tu. April 4   | 1848  |
| 4 Chaw                       | 1164         | Sat. April 3  | 1802  | 1 R'áka †                    | 1211         | Sat. March 24 | 1849  |
| 5 K'òòn †                    | 1165         | W. March 23   | 1803  | 2 Chaw *                     | 1212         | Th. March 14  | 1850  |
| 6 Ch'òòat *                  | 1166         | M. March 12   | 1804  | 3 K'òòn                      | 1213         | W. April 2    | 1851  |
| 7 Ch'á'lóó                   | 1167         | S. March 31   | 1805  | 4 Ch'òòat                    | 1214         | Sat. March 21 | 1852  |
| 8 K'án *                     | 1168         | Th. March 20  | 1806  | 5 Ch'á'lóó *                 | 1215         | Th. March 10  | 1853  |
| 9 T'aw:                      | 1169         | W. April 8    | 1807  | 6 K'án                       | 1216         | W. March 29   | 1854  |
| 10 M'arong                   | 1170         | S. March 27   | 1808  | 7 T'aw: *                    | 1217         | M. March 19   | 1855  |
| 1 M'áséng *                  | 1171         | Th. March 16  | 1809  | 8 M'arong                    | 1218         | S. April 6    | 1856  |
| 2 M'ámecéä †                 | 1172         | W. April 4    | 1810  | 9 M'áséng                    | 1219         | Th. March 26  | 1857  |
| 3 M'ámaa                     | 1173         | M. March 25   | 1811  | 10 M'ámecéä *                | 1220         | M. March 15   | 1858  |
| 4 W'áwk *                    | 1174         | Fr. March 13  | 1812  | 1 M'ámaa                     | 1221         | S. April 3    | 1859  |
| 5 R'áka                      | 1175         | Th. April 1   | 1813  | 2 W'áwk                      | 1222         | Th. March 22  | 1860  |
| 6 Chaw †                     | 1176         | M. March 21   | 1814  | 3 R'áka *                    | 1223         | Tu. March 12  | 1861  |

## DIRECTIONS FOR USING

## THE TABLE OF COMPARATIVE DATES.

1st If it be required to find what day of our year will correspond to any given day and year of Siamese reckoning:—Find in the Table the day and year corresponding to the first day of the given Siamese year. Add to the date thus found, the number of days intervening between the commencement of the given year, and the given day of said year.—The sum when reduced to months will be the date required.

It is necessary to observe whether the given Siamese year be regular, or whether it have a double 8th month, (indicated by an asterisk [\*].) or an intercalary day in the 7th, (designated by an obelisk [†].) The Siamese year is always held to commence on the first of their fifth month, and if the year be regular, count 30 days to every month divisible by 2 without remainder, and 29 to all not so divisible. In a year with two 8th months, reckon an intercalary month of 30 days. In a year having an intercalary day, count 30 days to the 7th month. The first day of the 5th month being included in the date, it will be necessary to reject 1, and reckon to the 5th only 28 days.

EXAMPLE.—It is required to find the day and month of our year, corresponding to Pee Taw: 1205 Siamese era, 12th day of waning moon, 12th month.

Referring to the table, we find that Pee Taw:1205 commences on March 31, 1843. The year being regular, count

|                     |                       |                                   |
|---------------------|-----------------------|-----------------------------------|
| 5th month, 28 days. | To reduce this sum    |                                   |
| 6th " 30            | March 31 days         |                                   |
| 7th " 29            | April 30              |                                   |
| 8th " 30            | May 31                | If the corresponding day of       |
| 9th " 29            | June 30               | the week also be required, it may |
| 10th " 30           | July 31               | be immediately obtained by refer- |
| 11th " 29           | Aug. 31               | ence to the "Perpetual Calendar"  |
| and 15-12 27        | Sept. 30              | on page . In this example the     |
| 232                 | Oct. 31               | day would be Saturday.            |
| Add March 31        | 245 subtract from 263 |                                   |
| 263                 | 245                   |                                   |
|                     | Answer—November .     | 18th, 1843.                       |

2nd. If it be required to find the day and year of Siamese reckoning, corresponding to any day and year of the Christian era, all that is necessary will be to reverse the above operation, as will be readily perceived by the following

EXAMPLE 2.—Required the day and year, Siamese reckoning, corresponding to July 18th, 1804.

In the Table we find Pee Chòat 1166 commences on March 12 1804, that year having two 8th months. Taking the remaining days of March, nineteen in number,

|                |                                   |  |
|----------------|-----------------------------------|--|
| March 19 days. | To reduce, take 5th month 28 days |  |
| April 30       | 6th 30                            |  |
| May 31         | 7th 29                            |  |
| June 30        | 8th 30                            |  |
| July 18        |                                   |  |
| 128            | 117                               |  |
| 117            |                                   |  |

11th of waxing moon 2nd 8th month Pee Chòat 1166

## A PERPETUAL CALENDAR.

BY WHICH MAY BE FOUND IN TWO OR THREE SECONDS OF TIME,  
THE CORRESPONDING DAY OF WEEK AND MONTH,  
IN ANY YEAR FROM 1770 TO 1910.

| YEARS. |      |    |      |    |    |    | MONTHS.   | SUNDAYS. |    |    |    |    |    |    |
|--------|------|----|------|----|----|----|-----------|----------|----|----|----|----|----|----|
| A      | G    | F  | E    | D  | C  | B  |           | 1        | 2  | 3  | 4  | 5  | 6  | 7  |
| 1789   | 70   | 71 |      | 72 | 73 | 74 |           | 8        | 9  | 10 | 11 | 12 | 13 | 14 |
| 75     |      | 76 | 77   | 78 | 79 |    |           | 15       | 16 | 17 | 18 | 19 | 20 | 21 |
| 80     | 81   | 82 | 83   |    | 84 | 85 |           | 22       | 23 | 24 | 25 | 26 | 27 | 28 |
| 86     | 87   |    | 88   | 89 | 90 | 91 |           | 29       | 30 | 31 |    |    |    |    |
|        | 92   | 93 | 94   | 95 |    | 96 |           |          |    |    |    |    |    |    |
| 97     | 98   | 99 | 1800 | 01 | 02 | 03 |           |          |    |    |    |    |    |    |
|        | 04   | 05 | 06   | 07 |    | 08 | JANUARY   | A        | B  | C  | D  | E  | F  | G  |
| 9      | 10   | 11 |      | 12 | 13 | 14 | OCTOBER   |          |    |    |    |    |    |    |
| 15     |      | 16 | 17   | 18 | 19 |    |           |          |    |    |    |    |    |    |
| 20     | 21   | 22 | 23   |    | 24 | 25 | MAY       | B        | C  | D  | E  | F  | G  | A  |
| 26     | 27   |    | 28   | 29 | 30 | 31 |           |          |    |    |    |    |    |    |
|        | 32   | 33 | 34   | 35 |    | 36 |           |          |    |    |    |    |    |    |
| 37     | 38   | 39 |      | 40 | 41 | 42 | AUGUST    | C        | D  | E  | F  | G  | A  | B  |
| 43     |      | 44 | 45   | 46 | 47 |    |           |          |    |    |    |    |    |    |
| 48     | 49   | 50 | 51   |    | 52 | 53 | FEBRUARY  | D        | E  | F  | G  | A  | B  | C  |
| 54     | 55   |    | 56   | 57 | 58 | 59 | MARCH     |          |    |    |    |    |    |    |
|        | 60   | 61 | 62   | 63 |    | 64 | NOVEMBER  |          |    |    |    |    |    |    |
| 65     | 66   | 67 |      | 68 | 69 | 70 |           |          |    |    |    |    |    |    |
| 71     |      | 72 | 73   | 74 | 75 |    | JUNE      | E        | F  | G  | A  | B  | C  | D  |
| 76     | 77   | 78 | 79   |    | 80 | 81 |           |          |    |    |    |    |    |    |
| 82     | 83   |    | 84   | 85 | 86 | 87 | SEPTEMBER | F        | G  | A  | B  | C  | D  | E  |
|        | 88   | 89 | 90   | 91 |    | 92 | DECEMBER  |          |    |    |    |    |    |    |
| 93     | 94   | 95 |      | 96 | 97 | 98 |           |          |    |    |    |    |    |    |
| 99     | 1900 | 01 | 02   | 03 |    | 04 | APRIL     | G        | A  | B  | C  | D  | E  | F  |
| 05     | 06   | 07 |      | 08 | 09 | 10 | JULY      |          |    |    |    |    |    |    |

**RULE.**—Under the word Years find the Year, above which is the Dominical or Sunday Letter for that Year; then against the Months on the right hand, find the same Letter, over which are placed the Days of the Month for every Sunday in the Month. In Leap-Year for January and February, use the Letter above the blank space for the year; for the rest of the months use the letter belonging to the respective Year.

**EXAMPLE.**—What day of the week was July 4th 1776? Over the year 76 we find the letter F. Then against the month July we find the same letter F, over which are all the days of the month which happen on Sunday; viz. 7th, 14th, 21st, & 28th. Counting backwards from the nearest Sunday, (the 7th,) we find July 4th Thursday.

## AN ABSTRACT OF THE HISTORY OF BUDDHISM.

*The writer of the following sketch is greatly indebted to an elaborate paper read before the Am. Oriental society May 28th 1844 by Edward E. Salisbury, professor of Arabic and Sanskrit in Yale College.*

Buddhism is evidently an off-shoot of the Indian imagination, at a time when the Pantheism of Brahminism, had, by a long operation among that people, produced its legitimate fruit,—sluggishness of mind,—confounding the Deity with his works, making it to appear, that the aggregate of Creation itself is God. Buddhism to oppose this Pantheism, eliminated the doctrine, that all forms are mere illusions, and that will, purpose, action, feeling, thought, desire, love, hatred, and every other attribute that can be predicated of mind, is unstable, unreal, and therefore cannot be associated with perfect peace—According to this philosophy, there is nothing real and substantial but this state of “Sublimation of existence above all qualities”. To this state it is said, Buddha has attained, which is denominated in the Pali, Nirvana; in Burmese, Nigban; and in Siamese, Nip’an. And notwithstanding their description of the state, appears to involve all that would seem to us necessary to constitute perfect annihilation, yet the prevailing impression among them seems to be, that Buddha has a perpetual being in Nip’an. The literal meaning of this name is ABSENCE OF ALL DESIRE, and this, it is said, involves the absence of thought. Hence it may be denominated a state of dreamless and perpetual sleep.

Now, to attain to this state, Buddhism makes it indispensable to fix and settle deeply in the mind its great dogma viz, that all things which appear in creation, are illusive and unreal, and hence unsubstantial, and that this lesson can be learned only by the most studious application of mind, and severe moral discipline in the way of self denial during a period at the least of 100,000 transmigrations.

The Buddhist rules of faith and practice, having emanated from some intelligent Will, could not, according to this philosophy, have come from Buddha in his state of absolute sublimation, nor can they be even cared for or thought of by him for a moment; but must (if ever at all) have been taught by him before he became a Supreme Budha, while he was still in the possession of a will and purpose, thought and desire.

The teachings of Buddhism make it appear, that a “disasterous fatality” is the cause of creation. “While Brahminism blinded itself to the perception of evil by reference to the all pervading presence of the Deity, [as being the aggregate of all that exists], and while the ancient Persian religion accounted for evil mingled with good by assuming a two-fold Original Principle, Buddhism cut the knot by denying, (consistently with the idea of Deity which it held) that the Supreme Being has taken

any active or responsible part in the creation of the world". The universe, according to its teachings, comes into existence by the the inherent force of certain fixed and invariable laws, bringing the worlds out of chaos, and conducting them onward, by an almost imperceptible gradation, for millions of ages to a state of high perfection; and thence downward, by the same slow rate, to entire dissolution; and thence back again out of destruction, onward and upward; and then downward again in a series that has had no beginning, and will have no end.

Buddhism had its origin in a man of royal blood named Gotama, called by the Siamese Somana K'otamo. It is probably true that his father ruled over a small independent kingdom at Kapilavastu, in the North western part of the Province of Oude, near the Himelaya mountains: that having tried to satisfy the cravings of his immortal spirit by the luxuries and pleasures of a princely life, he became disgusted with the world and its pursuits, and adopted the life of a hermit, and soon became a religious enthusiast, fancying that he had found the true and only way to real and eternal good, by his scheme of disentangling himself from the meshes of illusion, and leaping off from the circle of eternal transmigration, into a sublimation of existence that has no attribute, and will consequently be beyond the reach of all change.

His majesty the present king of Siam, in a MS. ascribed to his pen while in the Priesthood says, "Buddha was a man who came into being on a certain time, by ordinary generation, that he was a most extraordinary man, more mysterious and wonderful than all the heavenly beings, because he made vast merit by the use of his body, his words, and his will. He affirms that he reigned as king 29 year, [meaning probably that he lived in princely state from his birth till he was 29 years old]; that he then practised the most severe asceticism, and with the greatest assiduity for a period of 6 years, when his mind became so sublimated and refined, that he habitually numbered and measured every thought he had, fixing his mind upon that single object to the utter exclusion of every other care, and that consequently he then attained to the highest perfection, not knowing any thing alike of happiness or sorrow, being in a middle state between the two; and that as a result of this, he then had power to remember many of the transmigrations of being through which he had come, and could see with angelic eyes distinctly all the various and numberless transmigrations of human, angelic, and animal being throughout the universe: and thence onward to the time of his death, he gave his mind entirely to the work of destroying sin in his own body and soul, and became the most pure and spotless, not only externally, but also in all the secret recesses of his life and soul, and hence is worthily denominated Arāháng. He then saw by his own power alone, that all forms and bodies



which merit and demerit have caused to come into being, and all other things which exist without any cause, are altogether illusive, unreal, unsubstantial and evenescent; without a maker, owner, proprietor, or lord, and that hence he is also called Sāmma-Sāmp'ōḍt'o. This, says he, is the sacred Buddha whom others before us have thus enlogized, as having come into this world, and lived in it, and is commonly called, according to his family name, G'otāmo. He spent 45 years in publishing the way to holiness and substantial and eternal peace, and then extinguished his life, and departed into Nip'an." Thus much for the religious views of the present sovereign of Siam, who is a sworn defender of the Buddhist religion, and has proved himself thus far to be quite faithful to his oath, though he be somewhat of an innovator.

There is not much reason to doubt that G'otama lived in the time of Daniel the prophet, and died about B. C. 534 just as other men do, because he had no power to retain his life. It would appear that he propogated his new views at first with much caution, and made choice of a few able men as his most confidential followers, and appointed them as the repositories of Buddhism after his departure.

The Kings of Magadha, ruling in central India, appear to have become proselytes to the new faith before Buddha's death. After his death, a man named Kassapo (Sanskrit Kasyapa), having received a special charge from Buddha, became High Priest or chief apostle of Buddhism. By him a grand council was immediately convened at Radchagaha under the sanction of the king of Magadha. The object of the convention was to devise ways and means to arrest schisms which were beginning to arise, and to determine what traditions were canonical, and by whom they should be orally transmitted in the future. It is supposed that all the clerical members of that assembly were gifted with supernatural inspiration, and were consequently authorized to add to the Sutras,—(Buddha's own instructions,) two supplementary parts, which, united with the Sutras, constituted the book entitled the TRIPITAKAN, OR THREEFOLD TREASURE. This system of Buddhist faith and practice was then unwritten, and was transmitted by oral means alone for a period thence onward of about 450 years.

A second council of Buddhist Priests was convened B. C. 443, under the protection of the king of Magadha, named Kalasoko. Its object was to purify the clergy of certain errors of practice which had appeared among them.

A third Council was held about B. C. 244, under the protection Asoka, the Emperor of Central India. This was to correct heretical doctrines, which certain Brahmins, the enemies of Buddhism, were very successfully propagating. By the great power of church and state then united, the flood was stayed.

The great age of the foreign propagandism of Buddhism, dates back to that council. The High Priest of the profession, under the sanction and support of the

Emperor, appointed missionaries to Kasmira-Gandhara,—which is identical with the modern Cashmere; and to Mahisanandala,—probably the western part of the Himalaya range; and to Maharatta; and to the Yona country,—supposed to refer to western Asia west of the Indus; and to Himavanta,—probably the higher regions of the Himalaya mountains N. and N. E. of Cashmere, on the northern side; and to Sovanabhami,—the locality of which is very doubtful;—and to Lanka,—being the island of Ceylon.

In the last named country, Buddhism was propagated first by Mahinda, who lived until about B. C. 193. He was a son of the Emperor Asoko, and had great influence as a missionary, uniting in his person the power of being chief apostle of Buddhism, and the honor and dignity of regal blood connected with a powerful family then living. So great was the impulse which he gave to Buddhism at that period, that it seemed to its followers almost like a new manifestation of Buddha. It went on increasing in power and extending its domains, until a little before the commencement of the Christian era, when Brahminism waxing strong in her jealousy of Buddhism, made a greater effort than ever to overthrow her antagonist. To resist this influence, as well as to give Buddhism greater perpetuity, its leaders caused the instructions of Buddha, and the supplementary lessons of the so called inspired Priests, to be committed to writing in the Pali language.

It appears to have been in Ceylon, that female recluses connected with the temples of Buddha began to appear, and became quite conspicuous. This expansion of Buddhism took place mainly through the influence of lady Sanghamitta, daughter of Asoko, who having been consecrated as a mendicant, went to Ceylon for the express purpose of forming there a Buddhist nunnery, in which mission she was quite successful, becoming herself the Superior or Abbess of the order.

Another new phase in Buddhism began to make its appearance in Ceylon about that time. It was an inclination on the part of its Priests to assume undue power in the affairs of State, which was quite contrary to the spirit and intentions of its founder.

Brahminism had then struck a deadly blow at Buddhism in India, and the latter began to decline in its own native country as early as the 2nd century. But by means of its WRITTEN WORD, and the written commentaries thereon, it was better prepared for perpetuation than before: and in consequence of the odium into which it was falling at home, it became the more willing to spread itself into foreign lands.

Ceylon appears to have been the birth place of other supplementary Buddhistical instructions,—volumes innumerable,—besides those that were handed down by tradition from the primitive followers of Buddha, and first committed to writing on that island.

From a Ceylonese history, entitled the Mahāvanso, cited by Prof. Salisbury, it appears, that Buddhism was quite revived in India by the means of a translation of the original Buddhist commentaries from Singhalese into Pali, which was made by a Brahmin youth of great eloquence. He became an enthusiastic convert to Buddhism, and went on a mission from Maghada his native place to Ceylon, for the express purpose of performing that work. When finished he returned to his own country, and became a great apostle of Buddhism. So eloquent was he, that he was honored with the name Buddhaghoso; which means "the voice of Buddha".

From Ceylon Buddhism was next propagated in Burmah probably in the 4th century. A Burman history called Mahārazoen says, that "the Pali books and Character were brought from Ceylon to Pegu by a Brahmin named Buddhaghoso in the 940th year of their era" — A. D, 307.

About the same time, or perhaps a little before, it appears to have been planted in Java by means of colonies from Ceylon. And thence, it would seem probable, it was brought to Cambodia, and thence to the Siamese and Laos. It is certain that the written instructions ascribed to Buddha came first to Siam via Cambodia: consequently, all their sacred books are written in the Cambodian character. The Siamese themselves have a tradition, that they were brought directly to Cambodia by junks from Ceylon: and their impression is, that the Buddhist religion was the religion of the land by traditional instruction long before this event. They very naturally know of no other religion as having existed among their remotest ancestors.

From Cashmere Buddhism spread into Northern Asia. It was established on a firm footing in Thibet and Mongolia about the middle of the 7th Century. Thence it was propagated powerfully in China. Under Mongol Tchinggis-Khan, in the 13th Century, the Grand Lamas of Thibet had their origin, when temporal power appears to have been first fully given to the Buddhist hierachy. It would appear that Buddhism began to take root in China as early as the 1st Century, and possibly before, resulting from political relations which then existed between China and Khotan. But it attained to its greatest glory in the former, under the sceptre of the Mongol Koblaï Khan.

A Chinese recluse, named Chy-fa-hiean, at the close of the 4th Century, made a pilgrimage into foreign Buddhist countries, being engaged in it 15 years. On his return he caused a critical digest of the Buddhist Scriptures to be made in the Chinese language. The first full translation of the Buddhist Scriptures into Chinese was made A. D. 418. An age of persecution, and then of laxity followed, which led to the bringing forth of a new translation of the same work, from the Sanskrit about A. D. 695, by a Khotan friar.

The entire decline of Buddhism in India has been attributed to the peculiar philosophy of a man named Kumarila Bhatta, who lived in the 7th Century, at the end of which Buddhism ceased to be tolerated in Hindostan.

Buddhism is said to have been planted in Japan about A. D. 458, by missionaries from Kipin, in the neighborhood of the cities of Ghizneh and Kandabar, a country near the Indus, on the western side. These latter efforts to disseminate it, appear to have been made partly from the opposition it had met with in its own country, and the consequent disgrace into which it had there fallen.

Siam is by peculiar eminence a Buddhist country. All her subjects worship Buddha excepting a small proportion of the Laos, a few thousands of Karens, the Mohamadans, the Roman Catholics, and a small number of Protestants. Some adequate idea of the power of Buddhism in this country may be obtained by looking at the fact, that in Bangkok and its suburbs, there are at the least calculation, 100 Temples, costing probably not less than \$100,000 each—\$10,000,000; and these are occupied by 10,000 priests, supported by the gratuitous contributions of the citizens of Bangkok alone, at an annual expense of at least \$100 per head—\$1,000,000. And the loss of the services of these 10,000 priests to the country (for they do nothing whatever to enrich or benefit the country,) at the moderate calculation of 25 cts. per day, would make an annual loss of \$912,500, which should be added to the expenses of the priesthood.

Now if the expense of the priesthood in the city of Bangkok alone be but little short of 2,000,000 of dollars per annum, not including the worth of the time which the laity spend in attendance on it and innumerable other services connected with their religion, which is at the least calculation full one seventh of all their time, what must be the aggregate of all that the whole country pays for her religion in the one item of supporting the Priesthood? Allowing that the city of Bangkok has a population of 400,000, and the whole kingdom 4,000,000, and that the people all over the land are as devoted to their religion as in Bangkok, (which can hardly be doubted,) then the actual annual expense of their priesthood would be but little short of 20 million dollars.

It is by the best authorities supposed to be a moderate calculation to say, that 400 millions of the present inhabitants of our world are Buddhists in some of its forms, and that about  $\frac{1}{3}$  of the human race, who have lived since the beginning of the 13th century, have lived and died in this faith.

Now the question cannot but arise in every mind, which contemplates the subject, viz;—How is it that such a glaring system of Atheism should have ever got such mighty power over the human mind?

The writer will venture here to lay down a few propositions, which he will be found on examination, to have much bearing on this question.

1st The cardinal doctrine of Buddhism, that there is no God,—no intelligent Maker and sole proprietor of the universe,—is one which the fallen race of man loves as such, above all other religious dogmas. The root from which the tree of such fruit comes, may be seen in Adam and Eve, as soon as their Maker called for them on the eve after their fall. They were afraid of him, and would if they could, have hidden themselves forever from his notice. They had lost their love for him, and would, had it been possible, have lived without him to all eternity. King David had this fact in view when he said “The fool hath said in his heart there is no God”. The idea seems to be, that man is in a state of entire alienation from his maker, having no desire for God, no heart to seek him: but contrari-wise a powerful determination of will to believe that there is not now, and never was, and never will be any Almighty, and eternal Maker and owner of the universe. David expressed the same thought when he said “The wicked through the pride of his countenance will not seek after God: God is not in all his thoughts” The same mournful truth is exemplified by the continual and universal propensity of our race to forget God.

Now the teachings of Buddhism, are most wonderfully adapted to suit this propensity of the race, and hence the great readiness with which it has been received by mankind, and the great pertinacity with which it is still held by four tenths of the race. When the doctrines of the gospel of the Son of God shall spread with great power among these Buddhist nations, as they most surely will, it will do so, not from any natural love for them in the human heart, nor by the light of gospel truth alone, but by the almighty power of the Spirit of God producing a radical change of heart, that will love to receive “the truth as it is in Jesus”.

2nd Another cause of the power of Buddhism to proselyte, and hold its followers as it does, may be found in the deference it has usually paid to regal dignity. A marked characteristic of Brahminism is to favor a kind of Theocracy, not feeling any special dependence on kings. Buddhism regards kings as the proper rulers of the land, a part of whose business it is, to give countenance to its faith and practice. The result is, a mutual sense of dependence, thus working together to strengthen both Church and State. It is true that Buddhism at one period of its sway, in a certain locality, Thibet, having been nourished to great strength by royalty, assumed supreme temporal power, just as Roman Catholicism did in Europe. But that condition of things in Buddhism, like that in Christianity, was abnormal, contrary to the teachings of its founder, and could continue only for a time, and that not universally. At the present time Buddhism as it appears in China, Burmah, and Siam, is a

mutual union of Church and State, producing the feeling of mutual dependence, with consciousness on both sides of greatly accumulated strength as a consequence.

3rd Another reason of the great power of Buddhism may be found in the fact, that it is peculiarly the people's religion, designed especially for the masses of society. It opens its bosom equally to all classes and grades, making no invidious distinctions for those high in rank or power. It especially befriends barbarians, the poor, and the down-trodden, giving no countenance to caste. It says to all classes and ranks, and tongues,—the sacred priesthood for making merit, is open freely to you. The way to attain the peace of Nip'an is there inviting you. Buddha himself, in some of his states of transmigration, was mean and degraded as the very lowest of you,—nay far lower; having in one state of his existence, been a slave; in another a monkey; in another a snipe; in another a snake; and in succession many other creatures as vile. You have already passed through myriads of births. And a doctrine of the infallible Teacher is, that there is no man, however vile in any state of his existence, without a store of merit, which he has made, a little here and a little there, all along the whole line of his transmigrations, which will not fail to turn to his account, and work powerfully for his good ere long. It is possible that you may in your next state of being, be born to high honors as a reward of merit, which you have made in previous states of your eternity past. Although you may not, perhaps, hope to pass into Nip'an until you have had thousands of births more, yet you may hope to reach some of the Tēwāda worlds, and after that, some of the P'rom worlds, and spend billions of years there, basking in pleasures far higher than earth can ever give you. Such delusive flatteries, the writer believes to be the true spirit of Buddhism, most cunningly devised by the father of lies, to draw the great masses of the fallen race after him.

4th Another great cause of the power of Buddhism, is manifestly to be found in the fact, that all its tendencies are only, and that continually to nourish the depraved love of merit-making with one's own capital alone. Mankind universally, while in their natural state, abhor salvation by the free grace of another, and will never accept of it: but they love salvation by the merit of their own works, and no matter how hard they may have to work to earn it, and little matter how many states of existence must be passed through to secure it, provided it be sure at last, and provided a part of the way to it, lead through some of the inferior heavens, where sensual pleasures can be enjoyed myriads of years. Now Buddhism has created boundless oceans of such milk and honey to tempt this depraved appetite of man, and has spread out an eternity of changes of birth, in which all the wandering stars of the race may rove and obtain an infinite amount of experience, and variety of existence. It teaches

that man is able to work out his own righteousness wholly unaided by another; and that he merits a rich reward in a future state, for every spoonful of rice he gives to the priests of Buddha, for every reverent clasping of the hands to worship them, and for every word of blessing pronounced upon them. But a hundred times more meritorious, and profitable is it, to devote time to the practice of the rules of Buddha in the priesthood, and the more the time thus spent, the more of future good will be earned, and obtained by the rule of compound interest. And to make temples, and fill them with images of Buddha, is exceedingly profitable for the future state. And even the faintest whisper or thought of the name Arāháng, (one of the names of Buddha,) no matter how selfish the motive may be in such thoughts, nay the more selfish the better, will pay well into the storehouse of merit, which eternal law alone will surely cause to redound to the future welfare of him who thus seeks his own salvation.

5th. Another reason of the power of Buddhism to hold its devotees and their descendants so pertinaciously is, that it declares it to be one of the most heinous sins for its followers to apostatize from its faith, or even dispute its teachings. It sends such infidels to the deepest hell, and cuts them off from all hope of a brief sojourn there. The consequence is, that all Buddhists will take its teachings, however ridiculous and preposterous, to be unquestionable truth, simply because their sacred books do thus teach. And, (excepting a few in the New School Buddhist of which His present Majesty the king of Siam is the leader,) they will not dare to enquire whether what they believe is really canonical or not. And consequently they hold fast to a host of dogmas, many of them the most absurd, which there is not a particle of evidence that Buddha himself, or any of his so called inspired priests ever taught.

To illustrate this trait of Buddhism, there is at the present time many of the most sensible men in the country, who really believe that the spire of a certain temple at P'etch'ābooree never casts any shadow, and that this spire stands as a perpetual monument of the truth of Buddhism. Attempt to disprove it by the evidence of their senses, and they will demolish your argument at once by saying, that the shadow is not really there, but in the mind only of him who is as yet too sinful to see the glory which always radiates from the spire.

Again,—There is a great and lofty rock east of P'rā:bat, called P'rā: Chei (literally sacred glory), and thus named because tradition says, that Buddha, on a certain time, stood under one of its projecting sides, and sheltered himself from a tremendous rain; and that consequently his glorious shadow was left there on the rock. Great multitudes of Buddhist pilgrims resort to the place every year in the dry sea-

son, to worship that supposed shadow. But no infidel eye, with all the imagination he may be able to summon to his aid, can see any thing more than the helter-skelter paintings made by the oozing of rain water through its crevices and down its face. Now attempt to reason the worshippers out of their folly, and they will be sure to meet you with their knock-down argument, that because of the obduracy of the human heart, none but the most devoted worshippers of Buddha can see it.

Again,—P'rābāt is a place 80 miles N. E. of Bangkok, on the slope of an isolated mountain, where tradition says Buddha stepped, and left the imprint of one of his feet in the rock, for the purpose that it should be a standing monument of his regard for Siam, and of his right to be regarded as the Supreme Teacher in the present Buddhist cycle. The pretended imprint is about 4 feet long and 2 wide, and sunk in the lime stone rock about 10 or 12 inches. Now scarce a man of the Old School Buddhists, and but few of the New, dare ever to question the truth of this. When the writer, on a certain time, stooped down with candle in hand to look in the dark hole for the evidence that the foot-print on its bottom was the same as the supposed copies of it which were engraved on copper hanging up by the walls of the building, the bystanders regarded him as performing a deed of great daring, which they would not do for the world. Yet as they had no authority to forbid him, and as his sin in so doing would not attach to themselves, they did not resist. And when after he had scraped away the rubbish in the cavity, and examined it from toe to heel, and told them that there was no kind of resemblance between it and their so called copies, they seemed to be surprised. But their chief speaker explained it by saying, that a long time ago, there happened to be a great fire on the top of the rock in that spot, which caused the characteristic figures on the sole of the foot-print to scale off.

Now the simple matter of fact seems to be, that there never had been any such figures there,—most certainly not by Buddha's footstep, and probably never by human device. But there was truly a hole in the rock, corresponding in length and width and horizontal contour to the pretended copies. Now in order to make the superstitious Buddhists of Siam believe, that the resemblance was as perfect on the bottom of the cavity as on the sides, it was only necessary for their leaders to cast into it many offerings of gold leaf, which it would be sacrilegious for any one to remove, and by this means hide the pretended foot-print from inspection, and then positively affirm that all the marks said to be peculiar to the sole of Buddha's foot, were there.

And accordingly we now find it to be a fact, that one of the kings of Siam, named Sômdet P'rā: Chòw Song T'ām, who began to reign A. D. 1602, did indeed



design the P'rā:bāt imposition, and caused it to be executed for the purpose, (as it is affirmed by one of the most intelligent and honored princes in the kingdom,) that he might make himself popular with the people, as being a king highly favored with vast stores of personal merit. Some say that his motive in the deception, was to honor Buddha the more abundantly by thus inducing the people to come from all parts of the kingdom to worship him there, which he conceived would bring a great revenue of glory to Buddha, that would otherwise be lost, and which would consequently redound greatly to the well being in a future state of himself, the chief agent in collecting that revenue. And it would seem that even now, in the present far more enlightened reign, the same "pious fraud" is being perpetuated by "the powers that be", and who know full well that P'rā:bat is a hoax. The king has recently repaired the buildings over and about it, and enlarged the accomodations for Buddhist pilgrims, and has gone there himself in great state to worship Buddha, and is thus exerting his great power to perpetuate that fraud. What can be his motive, except it be one akin to that of his predecessor, who originated that mode of merit-making?

In view then of the vast and mighty sway which Buddhism has had, and now has over the human race, and in view of its peculiar doctrines, so utterly at variance with the teachings of the Son of God, by which, as we have seen, it lays an eternal grasp upon all the souls which it touches, well may it be affirmed, that it is of all the other works of Satan to deceive mankind, the very climax of his shrewdness and power—that in Buddhism he has his chief seat—the concentration of all his most reliable legions,—and that here the great and decisive battles between him and the Son of God, are to be fought. O how sublime then is the work of preaching the gospel among Buddhist nations, and thus wielding, in the name of the Omnipotent Jesus, that armor of his own appointment, which he has both declared and proved to be "mighty under God to the pulling down of the strong holds" of his adversary!

The war of God against Buddhism has commenced. The Almighty has already planted his standard in almost every Buddhist nation on earth, and he is determined that the cross of Jesus Christ his Son shall ere long draw all men among them to confide in, and serve Him who was nailed upon it.

Shall we doubt this? when he has said that "the kingdom and dominion and the greatness of the kingdom under the whole heaven, shall be given to the people of the saints of the Most High God, whose kingdom is an everlasting kingdom, and all dominions shall serye and obey him"?—Is any thing too hard for the Almighty?

Why should it be thought incredible that he will fulfill this promise within the present century? May we not expect him to pour out his Spirit upon his people simultaneously in all parts of the world, as he de did on the day of Pentecost upon the

apostles and the little church in Jerusalem? And if he do so, how long would it be ere we should see the whole world converted to Christ? Would it be fifty years? No—not the half of it. Jesus Christ commands his followers to “have the faith of God” which can remove mountains. And if his people, with all their hearts, ask him for such faith, will he not grant it? Let them who know how to trust in him, away with all doubting on this subject. Let them so believe that “one of them shall chase a thousand, and two put ten thousand to flight”.

## THE BUDDHIST SYSTEM OF THE UNIVERSE.

*An abstract from a Siamese Book denominated Trei P'oom or Trei Lok Winit ch'ei; literally, a Book settling all questions about the existence of the three worlds; viz—the Man-world, the T'ewada-world, and the P'rom-world.*

### PREFATORY REMARKS.

The Trei P'oom bears every mark of having been originally translated from the Pali; and written in the Cambodian character. The original work was in all probability, written in Ceylon, and from that island it has been carried to all Buddhist countries, and has been, until but recently, universally received as the inspired supplementary instructions of Buddha. But His Majesty the present king of Siam, when a Chief priest of a Temple, stored his active mind with varied useful knowledge, among which was that of astronomy; consequently he became convinced that the Newtonian system of astronomy is the true one. It was this, in connection with other new light, which led him to pronounce a large part of the books regarded sacred by Buddhists, as uncanonical, for which Buddha himself is not responsible, but their uninspired authors only, who may be both right and wrong in much of what they have written. The Trei P'oom, from which the following article has been translated; His Majesty regards as belonging to that class of books, and considers much, if not all its teachings false, and ridiculously absurd. His pupils, many hundreds in number, followed their royal teacher in these his new views. This was the beginning of the New School Buddhists in Siam, which has converted many of its most influential men in the kingdom to its faith. Nevertheless, when compared with the Old School party, it is very small, and its followers, being still powerfully operated upon by the remains of inbred superstition, (the most learned not excepted) are weak in moral power, and do not succeed in disentangling themselves entirely from the interminable mazes of “the father of lies,” of which the seventeen volumes of the Trei P'oom are composed.

Hence it is true even now, that the Trei P'oom system of the Universe is held almost universally by the Siamese. That this is the system held by Buddhists generally, is clear from the “Manual of Buddhism” by Rev. E. Spence Hardy, who resided a long time in Ceylon, and appears to have been a most diligent and successful scholar in the Ceylonese and Sanskrit languages. His book containing 528 octavo pages, is chiefly made up of translations from native Buddhist authors, from which it appears unquestionable, that the Siamese Trei P'oom is very nearly an exact translation from the Ceylonese sacred books.

All the measurements of the System in the following article, have been calculated according to the present standard of long measure used by the Siamese,—to wit, that  $19\frac{1}{8}$  inches make one sawk or cubit—4 sawks 1 wah or fathom—20 wabs 1 sen—and 400 sens 1 yote, which is equal to nine and seven eighths statute miles. But as fractions are of little consequence in these wild calculations of the Buddhist's, the writer has, for the sake of simplicity, allowed 10 miles to the yote.

It may be well to remember that the Trei P'oom directs, that when any measurement of Kow Chakrawan is spoken of, the reader must calculate a yote to be five times the length of the yote used in the present degenerate age of the Universe, and that when any measurement is given of Kow P'ra: Mene, (and all above it probably,) two and a half times must be added to it; and that when a measurement of the earth is given, ( and all probably below it, ) four sixteenths must be added. The reason of this is said to be, that the three races of mankind who originally measured the three parts of the System, differed in size from each other and from men in this age, in those proportions; and consequently had fore-arms, (from which their sawk is taken,) differing accordingly.

The Universe consists of an infinite number of systems called Chākrawālā, (pronounced in Siamese Chākrawān.) Each Chākrawān has a sun, and moon, and stars revolving around the top of a central mountain denominated K'ów P'ra: Mēn, which extends above the surface of the ocean 84,000 yòt, nearly equal to 840,000 miles, and into the ocean the same distance. It forms a perfect circle, in circumference 252,000 yòt=2,520,000 miles. Parallel to the circle it describes, at the distance of 420,000 miles, is the 1st of 7 circular mountains, being variously distant from each other. The following Table will show their relative height and circumference, as measured both inside and outside. Their depth in the water is the same as their height above it.

### A TABULAR VIEW

#### OF THE SEVEN CIRCULAR MOUNTAINS.

| Name                 | Hight in miles<br>Above water | Inside circum. | Outside circum. |
|----------------------|-------------------------------|----------------|-----------------|
| 1 K'ów Yöö-köö-t'awn | 420,000                       | 7,560,000      | 8,810,000       |
| 2 K'ów Esin-t'awn    | 210,000                       | 11,340,000     | 11,970,000      |
| 3 K'ów Karäwìck      | 105,000                       | 13,200,000     | 13,540,000      |
| 4 K'ów Söö t'ätsänä  | 52,500                        | 14,332,500     | 14,672,500      |
| 5 K'ów Nēmin t'awn   | 26,250                        | 14,644,500     | 14,726,250      |
| 6 K'ów Winäntök      | 13,125                        | 14,803,750     | 14,923,120      |
| 7 K'ów Atsäkän       | 6563                          | 15,006,800     | 15,011,700      |

Between each of the 7 mountains there is a sea called Séé-tän-tärä-Sämööt. The width and depth of each is as the distance between the mountains which bound it, and the depth of the mountains below the surface of the water.

The 1st viz.—the sea bounded by K'ów P'ra Mēn on one side

is 420000 miles wide, and the same in depth on the side nearest K'ów P'ra

|            |         |   |   |                                                         |
|------------|---------|---|---|---------------------------------------------------------|
| The 2nd is | 120,000 | " | " | [Mēn, gradually diminishing in depth as you go from it. |
| " 3rd is   | 105,000 | " | " | "                                                       |
| " 4th is   | 52500   | " | " | "                                                       |
| " 5th is   | 26250   | " | " | "                                                       |
| " 6th is   | 13125   | " | " | "                                                       |
| " 7th is   | 6563    | " | " | "                                                       |

The water is said to be exceedingly refined and light. The fish that live in these seas are most wonderful in variety and enormous in size—many thousand miles long.

Parallel with the circle described by the 7th mountain, at a distance from it of 5,513,650 miles, is a circular glass mountain called Ków-Chăkrāwan. This forms the horizontal boundary of the system. Its height is 820,000 miles, its thickness 120,000.

The circular area which the Ków Chăkrāwan encloses is, 12,034,500 miles in diameter. The circumference of the mount measured on the outside is 136,035,500 miles. The water on both sides of it is 820,000 miles deep. The width of the ocean between it and KówAtsākān, is 3,513,650 miles.

Within this vast expanse of water, are situated the 4 grand divisions of the populated plane or surface of the Chăkrāwan. These are called T'ăwèèps, which have been incorrectly translated continents. They are respectively named,—1st, Ch'omp'oo t'ăwèèp at the south,—2nd Amărăk'o-Yană t'wèèp to the west,—3rd, Oštărăkōōro t'ăwèèp at the north,—4th Bōòp'ă wit'ēka t'ăwèèp at the East. The 1st in its horizontal contour, is shaped somewhat like the face of a man, and hence it is inhabited by mankind with faces like itself. The 2nd has a form like a half moon, and is inhabited by a race of intelligent beings with semi-circular faces, The 3rd forms a perfect square, and is inhabited by creatures with square faces. The 4th is circular like the full moon, and is inhabited by beings with faces round like the face of a full moon. The distance from each T'ăwèèp to K'ów Chăkrāwan is 2,798,600 miles.

The 1st,—viz. the one on which mankind live—is 100,000 miles in breadth; the 2nd, 70,000; the 3rd, 80,000; the 4th, 70,000 miles. Each of these T'ăwèèps have a group of islands belonging to it, 500 in number.

Each Chăkrāwan system is underlaid by a body of water independent of their oceans. The distance from the surface of the earth to it is, 240,000 miles, and the depth of it is 480,000 miles. Underlying this body, there is a stratum of air 960,000 miles in depth. And thence downward there is nothing but an open and utter void.

Each Chăkrāwan has attached to it, somewhere in the subterranean regions, eight Chief hells, called Nārāka, (pronounced Nārōk, literally worlds of utter misery).

Each of these hells has a retinue of 16 smaller ones, 4 on each side, being altogether 128. And outside of these, there is another range of purgatories 40 to each Chief hell, making 320, called Yomālōk. The 8 Chief hells are arranged in the following order, beginning with the one nearest the surface of the earth.

1st. San-Ch'ă-wa-nārōk—distant from the surface of the earth to its top 100 miles. A full age in this hell is 500 t'ip years, with 365 days to the year, one day of which is equal to 9,000,000 days on earth.

2nd. Kalā soota nārōk—distant from the bottom of the 1st about 12820 miles. A full age in it is, 1000 t'ip years, one day of which is equal to 36,000,000 of our days.

3rd. Sankh'ātā nārōk—distant from the bottom of the 2nd about 12820 miles. A full age in it, is 2000 t'ip years, one day of it being equal to 144,000,000 of our days.

4th. Roroop'ā nārōk—distant from the bottom of the 3rd about 12,820 miles. A full age in it, is 4000 t'ip years, one day of which is equal to 576,000,000 of our days.

5th. Māhā Roroop'ā nārōk—distant from the bottom of the 4th about 12823 miles. A full age in it is 8000 t'ip years, one day of each being equal to 2,304,000-000 of our days.

6th. Tapā nārōk—distant from the bottom of the 5th 12820 miles. A full age in it is 16000 t'ip years, and one day of each is equal to 9,216,000,000 of our days.

7th. Māhā Tapā nārōk—distant from the bottom of the 6th 12820 miles: a full age in it being half of an āntārakāp.

8th. Awē-chee nārōk—distant from the bottom of the 7th 12820 miles: an age in it being a full āntārakāp.

These are all of equal size, 1000 miles in diameter and the same in height, perfect cubes, enclosed all around, above and below, with walls of iron 90 miles thick, having each 4 gates, one at each of the cardinal points of compass.

In the original it is not stated how far distant the several hells are apart, only that the 8th is 100,000 miles from the 1st. The common impression is, that they are about equi-distant apart. As each one is 1000 miles square within the walls, and as the walls are all 90 miles thick all round, hence equal distances between them would be about as stated above.

#### CELESTIAL WORLDS.

Attached to each Chākṛāwan, there are 6 inferior heavenly worlds called T'ēwā-lōk, situated above each other, immense distances apart. The first is situated on the top of the 1st of the 7 circular mountains, the 2nd on the top of K'ōw P'rā Mēn. These two only have their foundations upon a terrestrial bottom. The others are suspended and fixed in open space. Their names and distances from each other, may be seen by the following table.

#### T'EWALOKS.

|   |                   |                         |                        |
|---|-------------------|-------------------------|------------------------|
| 1 | Chat'ōdmāhārāt    | —distant from the Earth | 420,000 miles.         |
| 2 | Dawādūng          | — do do                 | the 1st 420,000 do     |
| 3 | Yama              | — do do                 | the 2nd 4,344,000 do   |
| 4 | Dōōsīt            | — do do                 | the 3rd 7,844,000 do   |
| 5 | Nīmanārādit       | — do do                 | the 4th 10,352,900 do  |
| 6 | Pārānīmītwātsādee | do do                   | the 5th 104,856,000 do |

The inhabitants of these worlds are called T'ēwas or T'ēwādas.

## P'ROMLOKS.

Directly above the T'ewälòks, are 9 distinct and separate worlds, called Lòk-Roopä-p'ròm. Three of them are divided each into three parts, and are commonly reckoned as distinct worlds. In all of them the inhabitants have bodies; hence they are called Roopä-p'ròm-lòks. And directly above these, there are four more distinct worlds, called Aroopä-p'ròm, because their inhabitants have no bodies.

## ROOPA-P'ROM LOKS.

The following table will show their several names and distances from each other.

|                          |                                                       |                                                       |
|--------------------------|-------------------------------------------------------|-------------------------------------------------------|
| 1 Pät'óm-Chhanä-p'oom    | { P'romäparisätch'a<br>P'rompärohita<br>Mähá,p'roma } | distant from the 6th T'ewälòk<br>108,360,000 miles.   |
| 2 T'ööt'yächh'anä-p'oom  | { Pärítap'a<br>Apámanap'a<br>Ahp'ätsära }             | distant from the 1st Roopäp'ròm<br>201,864,000 miles. |
| 3 Tät'yächh'anä-p'oom    | { Pärítäsööpa<br>Ap'ámanäsööp'a<br>Sööp'ákínhaka }    | distant from the 2nd 253,680,00<br>miles.             |
| 4 Chätööt'ächh'anä-p'oom | { Wéháp-p'onla<br>Asányisät }                         | distant from the 3rd 288,720,000<br>miles.            |
| 5 Chänáwí                | —                                                     | distant from the 4th 363,700,000 miles.               |
| 6 Atána                  | — do do do                                            | 5th                                                   |
| 7 Sööt'ásá               | — do do do                                            | 6th                                                   |
| 8 Sööt'ätséé             | — do do do                                            | 7th 428,880,000 miles.                                |
| 9 Akänit'a               | — do do do                                            | 8th 463,920,000 miles.                                |

## AROOPA-P'RÒM.

Ahkasánänchayätänä distant from the 10th, 498,960,000.

Winyanänchayätänä do do do 11th, 284,700,000.

Ahhinchányatänä do do do 12th, 569,040,000.

Nëwäsanyána-sanyayätänä do do 13th, 604,080,000.

The inhabitants of these twenty p'ròm worlds are called P'roms.

## THE INFINITUDE OF THE CHAKRAWANS.

These Chäkräwans are far more innumerable than the particles of matter that compose our earth. To illustrate this, it is said that a mighty P'rom once desired to find the limits of all these systems. He was so powerful that at one step he would cross a whole Chäkräwan as quickly as an arrow shot from a bow would cross the shadow of a palmyra tree at midday. He traveled from one Chäkräwan to another with this astonishing velocity 1,000 years,—and then onward 10,000 more,—and thence onward 100,000 more years, until he saw to his full satisfaction, that it is impossible to find their end, or any numbers by which to express their immensity.

Another illustration is, that if one billion of Chākṛāwans were filled from their lowest hells to their highest P'rom-worlds with mustard seed, and one seed of this infinite number were taken up at a time, and thrown towards the east only, until all the seeds were thus used up, they would atterly fail to tell the number of Chākṛāwans there are in that one point of compass. Now as they are equally numerous in all the other points of compass, how then can a finite mind tell the whole number ?

Hence it is said Buddha taught, that there are four kinds or things which are absolutely infinite,—viz, the number of sentient beings, the extent of the open firmament, the number of Chākṛāwans, and the knowledge and wisdom of Buddha.

All the Chākṛāwans are arranged in close contact, as it is possible to bring circular planes, leaving necessarily a triangular space between triplets. These spaces are another class of purgatories called Lokāntānāroks. They enjoy no light of any kind, are intently cold, and are inhabited by a class of suffering souls denominated Prēts.

#### NUMBER OF WORLDS DESTROYED AT A TIME.

All these systems of worlds are destined by the eternal laws of fate, to undergo periods of gradual dissolution, and gradual new-creation, involving every thing below the 4th P'romālōk—the worlds above that being exempt. There are always one Billion of Chākṛāwans which come into being at the same time, and go forward with equal pace towards their highest stage of perfection, and then they retrograde in perfect harmony to dissolution.

As one Billion of these systems is but a small fraction of the whole number that exist, it follows, that the groups of billions are numbered by millions, and are to the supposed infinite mind of Buddha seen every moment to be in every conceivable degree of progress, onward and backward.

#### DIVISION OF TIME BY BUDDHISTS.

Buddhists divide time on the large scale by periods of Kālāpa, which the Siamese pronounce Kāp. One Kāp is the period from the first appearance of the cloud which is the harbinger of the new-creating rain, until one sun and one moon come into being. Another Kāp is the period from this time to the appearance of the great cloud which is the fore-runner of the dissolution of the worlds by fire. Another Kāp is the period from this to that state of entire destruction, which reaches up even to the third P'rom-lōk including it. Another, Kāp is from that period through myriads of chaotic years until the harbinger cloud appears, denoting the beginning of a new creation. These four Kāps added together make what they call a MāhāKāp.

Now the length of a single Kāp utterly defies the power of computation. It is affirmed that Buddha once said, in speaking on this subject, that the time which

it would take to wear away to the size of a the smallest seed, a solid rock 16 miles high by the occasional slightest touch and consequent trituration, with the finest gauze fabric the world ever saw, would be a Māhākāp. *attrition*

An Antāra-kāp is the period embraced in the time it takes for the common term of human life or age on earth, to increase imperceptibly from 10 years, to the number Asóngk'ei, which requires 168 cyphers placed at the right hand of a unit to express it. When the common term of life has reached to this height, it then turns and diminishes in duration gradually as it increased, to another Asóngk'ei of years. At that time, the race are accounted full grown men when they are 18 inches tall, and middle aged at 5 years, and extremely old at 10.

Now this increasing and diminishing of the term of human life on earth, goes on over and over innumerable times, in the course of the existence of a Chākrawān.

Every group of a billion of these Chākrawāns is destroyed seven times by fire, and then once by water; and then again seven times by fire, and once by water; and in this regular alternate order until the 64th time, when the agent of destruction is wind. After this the fire and water alternation is resumed, and goes on in the same order again to the 64th time,—and so on to all eternity.

#### THE DOMINIONS OF BUDDHA.

The dominions of Buddhā, called P'ōt'ākēt, are of three kinds or grades of extension—viz. 1st Chātkēt, embracing 10,000 Chākrawāns, all of which are convulsed with joy at Buddhā's birth; 2nd Anakēt, embracing one billion of Chākrawāns, all the inhabitants of which hold him as the Most High; 3rd Wiséiyākēt, embracing all the Chākrawāns in the universe, and which are known to Buddhā.

As Buddhās are never born in any other Chākrawān than this, it is designated the Mongk'onlā Chākrawān,—literally the Chākrawān which conducts to prosperity.

#### SUFFERING IN THE HIGHEST OF THE EIGHT CHIEF HELLS.

P'āya Yomārāt is a kind of Judge stationed in the gate way to hell. As there are four gates, there are four of these officers. They examine all culprits that are driven to them by stern fate. They are said to be rather kind and clement, and are ready to do all they can to clear those who come before them. They will question them long and carefully, to see if they cannot bring up to their recollection some good actions or good thoughts, which they may have had while they sojourned on earth. If they can do so, they are acquitted. If they cannot honestly recollect any thing of the kind, they are then committed to the charge of officers called NaiNiribala, who shut them up in hell. There the executioners of justice cut and slash, and peel them, until there remains only bones, when they die. But they come quickly to life again; for inexorable justice will not let them rest in death. A certain wind which



exists as a punishment for their sins of fattening animals for slaughter and killing them, and such like offences, blows over their carcasses, and they come to life again with fullness of flesh, prepared for another beating and peeling, and then another, agonizing death. And thus they live and die and come to life interminably for 500 of the tip years of hell, each having 365 days, one day of which is equal to 9,000,000 of our days.

But it appears not to be a very common event, for an inhabitant of hell to remain there throughout the whole term, just as it not very common for persons born in this world to live to the full age of man. Those who are born in hell, abide there until their sins shall have been nearly purged away. And as there are innumerable degrees of sins, so there are innumerable degrees of punishment in hell. Some are made clean enough to be released, after having been there only a few moments, some an hour, some a day, some a year and some 10, 50, or a 100 years; and a few are obliged to pass through the whole term. There is a small number who, having suffered an entire age in hell, have still some remains of sin unexpiated. But the time having arrived for them to transmigrate, they depart into some one of the smaller purgatories attached to the hell in which they paid the most of their debt to justice, and there complete the expiation demanded of them for a return to earth,—to be born a pret, if there be a good deal of defilement remaining, a beast of burden if there be less of sin; and a man of poverty and wretchedness, if less still; and a man in easy and happy circumstances, if but a very little taint of sin remain.

It is a very rare event for a soul to go directly out of hell to any of the heavenly worlds, excepting when all the Lokanaröks or hells are to be dissolved by fire, at the times of the periodical dissolution of the Chakrawans. At such periods, there is a special dispensation of fate to all the prisoners of hell, to purify and prepare themselves for a universal exodus to the Promalöks situated above the influence of the dissolving element. Consequently they are all, with but few exceptions, found ready for the change at the proper time. The few excepted, are those souls who have sinned against the priesthood, or directly against Buddha himself. These sins can never be expiated. Hence in order to preserve such sinners in being to suffer, they must at the time of the dissolution of the Awichee hell to which they have been doomed, be transferred to another Awichee hell belonging to some Chakrawan, which is not to be involved in the ruin of that billion group.

#### SOME OF THE PARTICULAR SINS THAT SEND SOULS TO HELL.

The crime of animal killing, or stealing, or robbing, or assault and battery, or burglary sends the offender to the 1st hell.

The crime of binding men or mere animals with cords, or fetters unto death, sends the offender to the 2nd hell.

The crime of yoking cattle or buffaloes to a cart or a plough, or forcing them in any other way to perform hard service, will send the offender to the 3rd hell.

The crime of seizing human beings, or mere animals, and boiling their bodies while yet alive, or the crime of beating them as in a mortar with a pestle, or of confining them in burning sand, or in mire exposed to the blazing sun, sends the offender to the 4th hell.

The crime of beating man or beast to death, or of confining them to a burning bush, or to a burning stake or house, and thus causing their death, sends the offender to the 5th hell.

The crime of taking swine, goats, fowls, ducks, or any other living creatures, and spitting them for roasting while they are yet alive, and thus causing their death, and the crime of arson, sends the offender to the 6th hell.

High officers of government, who order men to be seized and roasted alive, or who cause them to be confined for punishment under a burning sun, will have to suffer for it in the 7th hell.

All who are habitually engaged in killing animals, or stealing, or committing adultery, or drinking ardent spirits, or frequently getting drunk, will sink to the 8th hell. But especially they, who are guilty of the following five crimes, viz—murder of father, murder of mother, murder of a priest of the highest order called Arāháng, wounding Buddha in the foot so that it bleed,—(a figure of speech thought to refer to the sin of renouncing the Buddhist religion, or speaking or acting with the view to dishonor it,) and the sin of persuading the priests to follow erroneous doctrines and practices, have to go down to the very bottom of the 8th hell without the hope of any end to their sufferings.

#### WHAT AN AGE IS IN THE SEVERAL TĒWALOKS.

In the 1st or lowest TĒwālök,—a full age is 500 t'ip'ā or t'ip years, one of which is equal to 18,000 of our years, and the whole term equal to nine millions.

In the 2nd,—a full age is 1,000, t'ip years, one of which is equal to 36,000 of our years, and the whole equal to 36,000,000.

In the 3rd,—an age is 2,000 t'ip years, one of which is equal to 72,000 of our years, and the whole term equal to 144,000,000.

In the 4th,—an age is 4,000 t'ip years, one of which is equal to 144,000 of our years, and the whole term equal to 576,000,000.

In the 5th,—an age is 8,000 t'ip years, one of which is equal to 288,000 of our years, and the whole term equal 2,304,000,000.

In the 6th,—an age is 16,000 t'ip years, one of which is equal to 576,000 of our years, and the whole term equal to 9,216,000,000.

## WHAT AN AGE IS IN THE SEVERAL P'ROM-LOKS.

|                                                                          |                                            |                                        |           |
|--------------------------------------------------------------------------|--------------------------------------------|----------------------------------------|-----------|
| In the 1st P'rom-lök, which is the 8th in order of the celestial worlds, |                                            |                                        |           |
|                                                                          | a full age is $\frac{1}{2}$ of a Mähä-Käp. | In the 9th a full age is 64 Mähä-käps. |           |
| In the 2nd " " " "                                                       | $\frac{1}{2}$ of a do                      | " " 10th " " " "                       | 500 do    |
| " " 3rd " " " "                                                          | 1 Mähäkäp.                                 | " " 11th " " " "                       | 500 do    |
| " " 4th " " " "                                                          | 2 do                                       | " " 12th " " " "                       | 1,000 do  |
| " " 5th " " " "                                                          | 4 do                                       | " " 13th " " " "                       | 2,000 do  |
| " " 6th " " " "                                                          | 8 do                                       | " " 14th " " " "                       | 3,000 do  |
| " " 7th " " " "                                                          | 16 do                                      | " " 15th " " " "                       | 4,000 do  |
| " " 8th " " " "                                                          | 32 do                                      | " " 16th " " " "                       | 16,000 do |
|                                                                          | In the 17th the Aroop'ap'rom               | 20,000 Mähäkäps                        |           |
|                                                                          | In the 18th " " "                          | 40,000 do                              |           |
|                                                                          | In the 19th " " "                          | 60,000 do                              |           |
|                                                                          | In the 20th " " "                          | 80,000 do                              |           |

## HOW THE WORLDS COME INTO BEING.

When the space of a billion group of worlds that have been dissolved, has been in a chaotic state sixty four äntärakäps, the period arrives, when by the united merit of all sentient beings in the universe meeting together, a new system must be made in that void. The first signal of the approach of that event, is a great cloud brooding over the mighty abyss. From it first descends a very fine mist, continuing a long time, when it becomes small drops of rain. As the rain continues, the drops enlarge continually, but very slowly, until they become as large as a palmyra tree, and from that to a fathom in diameter, and then 5, 10, 100, 1000 fathoms and upwards, until the vast void is filled with water up to the place of the third heavenly world inclusive.

After this a great wind arises upon this waste of waters, producing a circular motion of the whole mass, so that it is rolled up into a spherical form. The continuance of the wind, in process of ages, causes the water to diminish, and sink away until the 3rd T'ëwä-lök is seen as it were coming up out of the abyss; which it does by the concurrence of universal merit; then the 2nd, and then the 1st, after long and untold intervals between the times of their several appearances.

## THE SIGN OF THE COMING OF A BUDDHA.

At this time the whole space of the billion group is still enveloped in darkness. The Chiefs of the P'romälöks, aware of the progress of the new creation, come down to see whether a Buddhä is to be born in the new world or not. If there is to be one, the event is indicated by the presence of a lotus flower growing up at the place where all the former Buddhas sat under a banyan tree. That is always the place

where the dry land first appears at every new-creation of the worlds, and the last place to be destroyed by the final dissolving fire. Hence it is denominated the Head of the worlds. If but one Buddha is to come, there will be but one lotus flower. If two, there will be two flowers on one stalk—and so on. At the beginning of the present system of worlds, there were five lotus flowers upon one stalk, which the P'roms who saw them, regarded as an unmistakable sign, that five Buddhas would be born in it in the course of its existence. Four of them have already come and gone, and one more is expected, in the next ebb tide of human age. Gotāma-Buddha's claims to supreme adoration will continue 2595 years more. His successor Maitree Buddha, will be a luminary to the univers; 80,000 years.

#### THE P'ROMS WHO LOOK FOR THE LOTUS FLOWER.

The darkness of the primeval state before the sun or moon has come into being, is dispelled by the personal glory of the mighty P'roms and their attendant hosts. They look anxiously for the well known harbinger of a Buddha. If they see the spot without a lotus flower, they mourn greatly for the new creation, because there will be no one endued with omniscience who can teach mankind, and all other sentient beings, the way to holiness and Nip'an; and consequently they will have all to transmigrate to the hells, or to the world of prēts, or to the kingdom of the asóórākais, or to the mere animal dominions, all of which will be filled, and the heavenly worlds evacuated. But if they see the lotus flower, they rejoice greatly because all the sentient beings of the new universe will have a true and faithful guide to the heavenly worlds, and to Nip'an; and all the hells, and the kingdom of the prēts, animals etc. will, as a consequence, be nearly emptied.

#### NO NEW SOULS EVER MADE.

Such reflections arise in the minds of those P'roms, because they know that a cardinal doctrine of Buddhism is, that no new souls are ever made, but that the Universe is always fully stocked with all kinds of intelligent beings, and has been from all eternity,—that they are continually transmigrating from one state of being into another, higher or lower than the one in which they now are, because it is impossible in the nature of things, that holiness and sin should not have their periods of maximum and minimum, as do the tides and all the Chākrāwans, and that they are never stationary excepting in the persons of a few of a highly privileged class, who reach Nip'an. Hence when all the holiness acquired, or the sin contracted in the former states of existence shall have been nearly exhausted or expiated, the subjects must depart into another state, such as they happen to be prepared for, be it the state of a p'rom, or t'wāda, or yāk, or rahāt, or prēt, or devil, or beast, or reptile, or vermin. Such views lead Buddhists to think that the heavenly worlds may become

nearly evacuated for the want of a Buddha, and all the hells nearly emptied because of his incarnation and teachings, which are thought to be mighty to lead souls in the way of holiness to heaven and Nip'an, and without which, all the souls in the universe would drift on an irresistible ebbing tide to utter depravity and final misery in the myriad hells.

#### THE FIRST SOURCES OF LIGHT.

The P'roms who always come first to people a new world, descend because their personal merit, which by its flow tide had placed them in their former elevated stations, has now in its ebbing for millions of years brought them down again. They come by a kind of apparition birth, and have angelic and glorious bodies, which fully illuminate the world, and supercede the necessity of any other lights in the heavens. They seem not to need any material food for their sustenance. They continue thus to live for thousands of years in the new world, while it is as yet but half finished. The Chāmp'oo T'āwèèp, i. e. the earth, has been made, and probably all the other three T'āwèèps with their islands.

#### THE FIRST SIN, IN THE NEW WORLDS.

In process of ages one among their number, becoming discontented with his spiritual food, took a notion that a certain kind of fragrant earth would be very palatable. The moment he tasted of it, it so electrified his seven thousand nerves of taste, that he had an ungovernable appetite for it ever afterwards. Through the influence of his example all his compeers fell into the same love of it. This formed another era in the progress of their degeneracy. Their bodies ceased to be luminous as at the first. And the world, which had until then, been fully illuminated by the light which emanated from their persons, was now suddenly enshrouded in deep darkness. This terribly alarmed them, not being able to divine how they would ever again come into the enjoyment of light.

#### WHEN THE SUN AND MOON AND CHAKRAWAN MOUNTAINS CAME INTO BEING.

It was not long however before the Sun rose upon them for the first time. This banished their fears, and filled them all with great gladness. Hence they called the Sun Sóóriyā, and the day on which he first rose, the DAY OF THE SUN.

But sadness soon came over them again, when they saw the Sun set in the west, and darkness approaching. They most ardently wished that they might have another luminary to take the place of the Sun. No sooner was the wish expressed, than they saw the moon rising in the east. And because their desires were thus gratified, they called the Moon Chānt'ārā, or Chān, (as the Siamese pronounce it.) This was the occasion of their denominating the following day, the DAY OF THE MOON.

The planets and stars were all made at that time. The five succeeding days of the week were named for five of the planets,—the 3rd day being called Mars,—the 4th Mercury,—the 5th Jupiter,—the 6th Venus,—and the 7th Saturn.

The Ków Chākṛāwans, the Ków-P'rā-Mēns, and the seven other circular mountains attached to each Chākṛāwan sprang into being on the same day that the Sun did, as did also the trees and all other plants of the vegetable creation.

#### THE DEGENERACY OF THE PRIMEVAL INHABITANTS.

Those first settlers were nourished for many thousand years by a kind of edible, earth above mentioned. The consequence was, that great differences took place in their personal appearance. Some of them were much better looking than others, and thought themselves to be handsome. This was the occasion of the rise of pride, envy, and oppression among them; and these sins by natural consequence, led to the withdrawal of that more refined terrene aliment, and the substitution in its place, of another kind of earth of a coarser character. By this they were nourished untold thousands of years. Deterioration of both body and mind was accelerated by its use.

At length a kind of white fragrant wheat came into being, which had no chaff. It came up like a mushroom in a night, and was ripe in the morning. If reaped in the morning, it would forthwith sprout out anew, and be ready for another cutting in the evening; and patches cut in the evening would have a new crop standing on the old roots in the morning.

#### INTRODUCTION OF COOKING.

Simultaneously with this new phase of the new-creating process, there appeared fire places or cooking ranges, with kettles all arranged upon them, wherever they were needed. The people, it would seem by mere instinct, put the wheat into the pots, and a flame was instantly kindled under them of itself, and that too, without the use of any kind of fuel: consequently there was no smoke in the cooking. When they saw the grain thus cooked to their hand, they tasted of it, and loved it. They had nothing else to eat with this food, and they needed nothing else; for whatever kind of taste they wished their food to have, it instantly gave them that particular relish.

#### DIGESTIVE ORGANS COMPLETED.

Almost immediately upon their coming to feed upon wheat, a great change took place in their digestive organs. Some important parts of them were then first made. Formerly their more refined angelic food, nourished them as it were by its fragrance: or at all events, no excrementitious matter was ever formed by it. But now, the whole track of their alimentary canals is made complete, and every part is put into requisition. Dejections from the bowels and bladder, which Buddhists regard as among the most offensive consequences of sin, then began to appear.

## GENDER ESTABLISHED AMONG MEN.

There was still another result from the use of a farinaceous diet. When those first settlers descended from the P'röm-lòks, there was no distinction of sex. They were all of the neuter gender. But after they began to eat wheat, those of them, who had in their sojourn on earth before been males, took the masculine gender again; and those of them who had been females, relapsed back into the feminine gender.

And moreover, their new diet was the cause of the generation of the 80 kinds of worms, which have ever since infested the bodies of mankind, and have been the predisposing causes of nearly, if not quite, all the diseases which the race is heir to.

About the same time began that peculiar regard, which the two sexes of mankind have for each other. And then too, commenced the era of peopling the new worlds with souls from the celestial states, the hells, the prèts, and the animal kingdoms, by the present mode of propagating the human species,—all the primitive settlers of the new universe having come into the world, by what may be termed the apparition birth.

## THE FIRST CLOTHING.

Simultaneously with the occurrence of the above changes, men and women began to feel ashamed of their nakedness; for up to that time they had had no clothing for their persons, and felt no need of any. But now they looked about with much anxiety for something to cover their shame. By the power of some personal merit yet remaining, there then started into being many trees of the "genus Kämmäp'rük" which had then growing upon them, all sorts of apparel, and some of them were fully perpared, such as they needed, and just such as they had, in their former life on earth, been accustomed to wear.

But even such complete apparel for their persons, they soon found insufficient to conceal them from the gaze of their neighbours, in acts degrading to persons, who had once been P'roms, and which they were ashamed to have seen. This necessity was the mother of inventing houses to live in.

## WHY GARDENS AND FIELDS CAME INTO USE.

In process of time, a P'rom, (whether one of the original settlers or not, does not appear,) seeing the vast and splendid fields of ripe grain, was tempted by sheer selfishness to cut it, and store it up for his own future use, which he did in large quantities. This was mean, and sinful, and highly improper. That P'rom seemed to stand as the federal representative of all mankind: they appear to have sinned in him. And the consequence was, that the grain grown from that time onward was much of it blasted, and was enveloped in a hard husk, and had to be thrashed out, and cleared of chaff before it could be cooked. And from that time also, it ceased to grow spontaneously: and had to be cultivated with much labor.

It was this state of affairs which first suggested to those aborigines, the necessity of having distinct and separate gardens and fields, with fixed boundaries attached to them.

Not long after this, a great council of the people was convened to take into consideration what it would be best to do, since now they had sunk so far below their pristine glory,—being stripped of all their angelic power, and obliged to cultivate the land for a livelihood. The unanimous voice of that republican convention was, that the whole land should be divided between each of the tribes of the race, and made over to each as their own property. That vote was carried into effect. And this was the beginning of villages, towns, and larger districts.

In process of time, a man was found guilty of stealing a quantity of grain. The community reprov'd him severely for it, and then let him go, hoping that that would be sufficient to cure him of stealing. But these hopes were disappointed. Not long after, he committed the same crime again. He was caught and reasoned with, and scolded, and threatened, and liberated as before. But he heeded it not. He stole wheat the third time. This was too much for even those puritan Buddhists to bear. They rose en masse and killed the offender by a kind of mob law.

This was the circumstance in those pristine days, which led the first settlers of our world to think of having some one man appointed by the voice of the whole people, for a judge and ruler among them: and to have the power of life and death thus committed to his hands. A great council was called to consider the matter. The result was, that one of their own number was elected king, and the people took an oath of allegiance, that they would gladly submit to his rule, and would contribute each his part of wheat to support him in his government.

Now a most interesting fact to all Buddhists is, that that first king in the new-world was no other than Gotāmā-Buddha himself, in one of his previous states of existence, distant in the past from his last advent, thousands of transmigrations. He then proved himself to be the most worthy possible of the confidence reposed in him; for he was endued with wonderful acuteness of mind, and accuracy of judgment, and was most righteous in all his acts, and powerful in suppressing evil, and sustaining right. He bore the significant name, P'rā-Chòw-Māhā-Sāmōōti-Wōng, because he was the choice, and beloved of all the people.

Not long after this, there arose a class of men, who becoming disgusted with their own sins, and with the pollutions of the world, determined to retire into the wilderness, and nourish themselves by what they might happen to find there, hoping that they might, by such an ascetic life, separate their sins from their persons, and "set them adrift". They bore the name Pāramānā, which means to float away per-



sonal sin. This was the beginning of the present monastic order of the Buddhists.

#### HOW THE UNIVERSE IS DESTROYED BY FIRE.

A long time before a billion group of Chākṛāwans is to be destroyed by fire, a mighty P'rom descends and announces it. This wakens all the sentient beings within that group, living below the 4th P'rom-loks, (not excepting the smallest insects) to heed the warning, and prepare themselves for transmigration to the upper P'romlōks. By the powerful concurrence of all the remaining merit of those beings, they become suddenly endowed with a spirit of kindness towards all their neighbors. The natures of all the animals wild and tame, become wonderfully changed, so that the passage in Isaiah 11; 6—9, might be said to be fulfilled by them. T'ēwas, and men, and devils, and prēts, and other evil spirits, thence onward perform works of merit to an extraordinary degree, and lay up vast stores of self-righteousness.

After the lapse of ages of this preparatory work, a dark cloud arises and broods over all that billion group of worlds. Rain falls pleasantly and propitiously, as it would seem to all observers, producing high hopes of good crops. The young grain in the fields shoots up just tall enough to be nipped by cattle, when the rain ceases entirely and universally, and a great drought ensues. A terrible sound is heard every where throughout the universe, "like the braying of asses in universal concert." One hundred years pass by, and ten thousand more, and then one hundred thousand more, and not a drop of rain falls. All the human race, and the prēts and asōrākais, and all the tribes of the animal kingdom in the mean time die, and are born in the P'rom-lōks. All the t'ēwādas living in the six lower heavenly worlds, together with all the p'roms living in the three inferior P'rom-worlds, depart to higher states of existence. All the occupants of the greater and lesser hells, having by the extraordinary concurrence and power of the remains of their personal merit, earned in former states of existence, paid off their debt to eternal Justice, transmigrate to worlds quite above the reach of the approaching dissolution.

After unnumbered ages of drought, a second Sun appears rising just at the time the first is setting, and hence there is no more night. This Sun comes not to bless, but to destroy the worlds. There is no cloud, nor even mist to break the conjoined desolating power of these two luminaries; and this state of the worlds continues for untold ages.

After this, a third Sun appears, which greatly intensifies the heat and desolation. After another equally long interval of progressive ruin, a fourth Sun is added to the number of those destroyers, which dries up the oceans that had been 84,000 miles deep, and of course all other smaller bodies of water. Then after another march of

ages towards dissolution, a sixth Sun appears among the former five, when all the rocks begin to burn, filling the universe with a dense smoke. And finally, after all these terrible agents have conspired together for another long period to burn up the worlds, they are re-inforced by a seventh Sun. The consequence is, that the whole billion group of worlds are kindled into one universal blaze. All the K'ów P'rá Mëns, and all the concentric mountains, and all the K'ów Chäkräwans are melted down like wax, and burn up, leaving not a particle of residuum. And the six T'ëwälòks, and the three lower P'rom-lòks of every one of the billion Chäkräwans, are involved in the ruin. The whole space once occupied by the billion group, becomes one continuous and utter void, and will remain so for 64 äntärakāps.

#### HOW THE WORLDS ARE DESTROYED BY WATER.

When the worlds are to be destroyed by water, (which occurs only every 8th time) the catastrophe is announced three years before hand, by a t'ëwāda. At the time specified by the prophet, a cloud arises, and spreads over the whole universe. Rain falls from it at first, in very small drops. It possesses certain acid properties which makes the water a universal solvent. The drops increase in size slowly until they become united in one unbroken sheet, and thus pour down floods, until all the Chäkräwans of the billion group are filled. The K'ów-P'rá-Mëns, and circular mountains, and Chäkräwan mountains of glass, are by it dissolved as small particles of salt that are put into a lake of fresh water. The deluge increases, until it submerges and dissolves in its acid waters all the T'ëwälòks together with six of the P'romlòks. There is left not a particle of their original matter. One unbroken and utter void is the result, and will continue so 64 äntärakāps.

#### HOW THE WORLDS ARE DESTROYED BY WIND.

When the universe is to be destroyed by wind, (which occurs only once in 65 times,) a dark cloud, the common harbinger of dissolution and new-creation, covers all the heavens, and pours down at first only rain. At length a peculiar wind issues from it, having powerful solvent qualities. This wind at first is only strong enough to take up and brush away all the fine and loose particles of matter it finds. As it goes on increasing in power, it sweeps away all the gravel and cobble stones, and such like bodies, and annihilates them in the open space above. Then it pulls up all the trees of the forest, and whirls them up in the heavens, and dashes them one against another, until not a particle of them is left to return. In the mean time all the rocks of the largest dimensions are thrown up as easily as dust in the air, and entirely annihilated by the solvent power of the wind. At length the wind, getting under the pillars of the mountains, turns them all upside down, and then whirls them through space, dashing and crashing against each other, until they are reduced to an impalpable

powder, and then annihilates that powder. All the T'ewälöks, and nine of the P'romlöks are handled and destroyed with the same terrible power. And the destruction does not stop there. It descends to that immense substratum of water under all the billion Chäkräwans, and then to that body of wind, underlying the stratum of water, and which buoys up all the worlds. These are all swept away into entire nonentity.

Every billion group of Chäkräwans is bound to endure 64 äntäräkäps, every one of which, to be written in numerals, would require 168 cyphers placed at the right hand of a unit.

These 64 äntäräkäps embraced in the existence of a billion group of worlds, are denominated Sängwät'ä-asóngk'ei,

The period from the destruction of any group of worlds to the harbinger cloud for the creation of another group in the space occupied by the group destroyed, is also 64 äntäräkäps called Sängwät'ä-t'äyee-äsóngk'ei.

The period from that to the time when the creating water has filled all that void, and the Sun and Moon make their first appearance, is another cycle of 64 äntäräkäps called Weewät'a-asóngk'ei.

From the time of the first appearance of the Sun and Moon, to the rising of the harbinger cloud for the dissolution of those worlds, is another cycle of 64 äntäräkäps called Weewät-t'äyee-äsóngk'ei.

Each of these four cardinal cycles, as before said, (page 75), is commonly denominated a Käp, four of which make one Mahäkäp. Hence it follows that one Mahäkäp is equal to 256 äntäräkäps. Now let it be remembered, that every äntäräkäp can only be expressed by a unit and 168 cyphers.

It would appear that the present billion group of worlds, of which our world forms a little part, has been in existence, according to the Buddhist system, a period immensely long. For when the system began to be peopled from the P'romlöks, the age of man was a full äsóngk'ei, or one äntäräkäp: and as it has been diminishing just one year in every hundred years of this world's existence till the present average is 33 years, it makes the present age of the world to be nearly one hundred äntäräkäps which would be expressed by one unit with 170 cyphers. This however makes one part of their theory contradict another, because each system is inhabited only 64 äntäräkäps.

Allowing that the average age of mankind is reduced one year in every hundred of the world's history, it will require 2300 years to bring the stature of man down to that of mere pigmies—18 inches high,—with extreme old age upon them at 10 years. And then from that time onward, our world must continue to exist, until it shall have completed 64 äntäräkäps, when its final end will come by fire as above described.

The following Buddhist ideas of parts of the Universe, have been abridged from the "Manual of Buddhism" by Rev. R. Spence Hardy, to which reference was made at the beginning of this Chapter. The Siamese have them all in their own books:— and the writer takes them now from the source he does, rather than from Siamese books, because—first, it is much easier, and second, it will show that the knowledge of the Buddhists in Siam and Ceylon, concerning the system of the universe, has a common source.

#### THE STRUCTURE, AND MOTIONS OF THE SUN AND MOON.

The Sun is 500 miles in diameter. Its internal composition is coral, with an outer stratum of pure gold, and consequently it is extremely hot.

The Moon's disk is 400 miles in diameter, being composed mainly of crystal, having an outer encasement of silver, and is therefore a very cold body.

The Sun and Moon, attended by all the stars which are in the same division of the sky, move always in three paths extending from the summit of K'ów-yōō-kōōn-t'awn to K'ów Chākrawān, through the space (called a world) between it and the t'ēwāda world next above. Those paths are severally called—1st the Aja, or Goat path; 2d the Naga, or Serpent path; and 3rd the Go, or Bull path. When in the 1st path, there is no rain; when in the 2nd, there is much rain; and when in the 3rd, there is very little.

The Sun travels in one day 27,000,000 miles. Its rays extend 9,000,000 miles, giving light to all the four T'āwēps and their islands. Its orbit is elliptical, being nearest K'ów-P'rāmēn in July, and nearest K'ów-Chākrawān in January.

The orbit in which the Moon moves, is about 100 miles below that of the Sun. It travels in 24 hours 26,100,000 miles. The circumference of its orbit is 22,500,000 miles. It is always attended by the tēwas (or angels) of rain, dew, mist, and dust.

Night is caused by the Sun's going round on the opposite side of K'ów yōō.kōō t'awn. The Sun and Moon are seized at regular intervals by the Asúrs (āsoorākais) the Rahoos and Kētoos, which is the cause of their being eclipsed.

There are twelve signs of the Zodiac viz—1. A red ram;—2. a white bull; 3. a woman and man holding an iron rod and a lute;—4. a red crab;—5. a red lion;—6. a colored virgin in a ship, holding a hand full of rice and a lamp;—7. a white man holding a pair of balances;—8. a black elk;—9. a golden figure half man and half horse, holding a bow;—10. a marine monster;—11. a man holding a water jar; and 12. two fishes looking opposite ways. [The Siamese have essentially the same signs in their diagrams of the Zodiac, but they have also accompanying them, pictures to represent the names of each of the years of their cycle of twelve.]

ORDERS AND RANKS OF SENTIENT BEINGS.

The various distinctions that appear among sentient beings are only of temporary duration, excepting those who have gone to Nip'an, or have entered one of the four paths which lead there. "He who is now the most degraded of the demons, may one day rule the highest of the heavens; he who is at present seated upon the most honorable of the celestial thrones, may one day writhe amidst the agonies of a place of torment, and the worm that we crush under our feet, may, in the course of ages, become a Supreme Buddha."

1. Buddhas are the highest intelligences. There have been innumerable millions of them in the eternity past. Even since Gotāmā-Buddha first resolved, in one of his past states of existence, hundreds of ages since, that he would exert all his powers during all his future transmigrations to attain to the omniscience of a Buddha, there have appeared more than 500,000 new Buddhas. Some of them were 40 cubits tall, others 30, and others 20. Some of them lived 40,000 years, some 30,000 some 20,000, and their bodies were usually luminous, casting their rays hundreds of miles. Those persons who form the resolution to become a Buddha, and whose resolution has been ratified by the prophecies of the most mighty P'roms, are denominated Bodhisats. Hence, in speaking of Gotāmā before he became omniscient, he is called Gotāmā-Bodhisat. It is said that he struggled through more than 25,600,000 āsong-k'eis to obtain his Omniscience. The following are a few of the births through which he passed. He was born an ascetic 83 times; a monarch 58 times; a t'ēwa of a tree 43 times; a religious teacher 26; a courtier 34; a prohitā brahman 24; a prince 24; a nobleman 23; a learned man 22; the t'ēwa Sekra 20; an ape 18, a merchant 13; a man of wealth 12; a deer 10; a lion 10; the bird hansa 8; a snipe 6; an elephant 6; a fowl 5; a slave 5; a golden eagle 5; a horse 4; a bull 4; the brahma Maha Brahma 4; a peacock 4; a potter 4; an outcast 3, a guana 3; twice each a fish, an elephant driver, a rat, a jackal, a crow, a woodpecker, a thief, and a pig; and once each a dog, a curer of snake bites, a gambler, a mason, a smith, a devil dancer, a scholar, a silversmith, a carpenter, a water-fowl, a frog, a hare, a cock, a kite, a jungle fowl, and a kindura. It is evident that this list is very far from being complete. As his age in his last state of existence was only 80 years, his body was not probably larger than what is ordinary for man now. Meitree-Buddhā his successor, is to come in the next ebb tide of human life, when the age of man is about 100,000 years: but he himself will enter Nip'an when only 80,000 years old, having attained to the stature of 18 cubits.

2- The Pase Buddhas are intelligences of wondrous power both physical and mental, but far inferior to a supreme Buddha. The latter can teach the way to Ni.

p'an, but the former can only obtain it for themselves—having no power to explain the way to others, even as a man born dumb, cannot tell his dreams to others.

3. The Rahats are ascetics who have attained to the fourth path leading to Nip'an. They are not liable to fall into any error in religious doctrines, and have the power of performing stupendous miracles; as that of overturning the earth, or arresting the Sun. They can see far back among the innumerable births that have taken place in past ages, and can distinctly see what births will be received by any being in the future. The Rahatship is usually attained by laborious discipline of the mind through a period of many transmigrations. Females have sometimes attained to it. The Rahāts all enter Nip'an at death.

4. The T'ēwas, or T'ēwādas, are the proper residents of the T'ēwālōks: but having the power of traversing space, they come down into our world, and dwell for a time in the tops of trees, and upon rocks and mountains, and at the chief gates of cities, and king's palaces, and upon the wings of the wind, and in thunder and storm. They all have material bodies, many being twelve miles in height. Their happiness is thought to be great, but not pure, partaking as it does largely of sensuous pleasures. Ambition, envy, and jealousy are not uncommon among them. Their number is incalculable by any mathematical power of men on earth.

5. The P'roms are of two general classes viz—those who have material bodies denominated Rōōpā-p'rom' and those who have no bodies, denominated ārōōpā p'roms. The former class have higher and purer pleasures than the t'ēwas, but are not free from sensuality. In some of the higher Rōōpā-lōks, they are self-resplendent, and magnificently rich in all the goods and glory of those high spheres, and live many thousand Māhākāp. The bodies of some of the most elevated of them are extremely ethereal, and move with much splendor through the heavens. In three of the lower ārōōpā-lōks their pleasures are purely intellectual. In the one next to the highest, the P'roms are very nearly unconscious of any thing that transpires: and in the highest world, they have attained to the repose of utter unconsciousness.

6. The Gandharwas reside in the world called Chāturmāhā-rajika. Their bodies are 160 miles high, and their chief vocation is that of choristers and musicians, being always ready to go when invited to any world for musical performances.

7. The Garundas have bodies shaped like birds, but immensely large, and are usually spoken of as being the enemies of the Nagas or Nāks.

8. The Nāks are demi-gods who reside in vast caverns, (sometimes denominated worlds,) under the rocks which support K'ōw P'rā Mēn, and in the waters of this world. Their form is like the hooded serpent, but of immense size and power. When

their wrath is kindled towards man, it is terrible to endure. They are said to have many enjoyments, and to be always favorable to the Buddhas.

9. The Yakas or Yāks seem to occupy in the scale of being, a place mid-way between devils and t'ēwādas. They wander about on the earth, and in the waters, and form a part of the guard around the palace of the Sekra, the chief of the second heavenly world. They marry, and delight in dances, songs, and other amusements. Their strength is great, and some of them are represented as possessing splendor and dignity. They sometimes enter the paths which lead to Nīp'an. Gotāmā was once a Yāk after he became a candidate for the Buddha-ship.

10. The K'ambandas are intelligent beings of immense size, and disgusting forms, employed in guarding the palace of Sekra on the South.

11. The Asurs or Asórákais live under K'ów P'rā Mēn. They are represented as having been once at war with the t'ēwas of Sekra's dominions, and were brought into subjection to him. But as they have great power, and undying resentment, he is obliged to employ the four guardian deities of that world, to keep up a constant guard against them. In their wrath they frequently seize the Sun and Moon, and cause them to be eclipsed. Rahoo is 76,000 miles high, 19,000 miles broad across the shoulders; and his head is 14,000 miles round; From his elbow to the tip of his finger, is 19,200 miles; and with one finger he can cover the sun or moon, so as to obscure their light.

12. The Rashes resemble the Yāks, but have no power to change their forms, as the latter have. Their home is in the forest of the Himalaya Mountains. But they wander to other places, and subsist on the carcasses of beasts and men.

13. The Prēts have their proper homes in the Lokāntārā narōks; but they rove about on earth, haunting the places where they once lived as men. They are wont to be where four ways meet, and in the suburbs of cities, so extremely attenuated that they cannot be seen. Their bodies are twelve miles long. They never remain in one place longer than the snap of a finger. They never eat nor drink, and weep unceasingly. There is another class of them which have heads 144 miles in circumference, and tongues 80 miles long. They have such intense internal heat, that were they to attempt to pour all the four great rivers into their mouths, they would be dried up before they would begin to taste one drop of them. All beings, except Bodhisats, receive this birth sometime in the course of their existence.

14. The inhabitants of the Nārākas or hells, all have bodies which endure intense misery. Gotāmā Buddha once, in illustrating the sufferings of the damned in hell said, "As this handful of stones is inadequate to show forth the extent of the great Himalaya mountains, so is the piercing of 300 spears, (every one of them producing intense pain,) inadequate to show forth the misery of the Nārākas."

BANGKOK TIDE TABLE.

| JAN. | A. M. |        | P. M. |       | FEB. |        | A. M. |       | P. M.  |        | MAR. |       | A. M. |       | P. M. |        | APR. |        | A. M. |        | P. M. |        | MAY. |        | A. M. |      | P. M.  |      |
|------|-------|--------|-------|-------|------|--------|-------|-------|--------|--------|------|-------|-------|-------|-------|--------|------|--------|-------|--------|-------|--------|------|--------|-------|------|--------|------|
|      | Low   | High   | Low   | High  | Low  | High   | Low   | High  | Low    | High   | Low  | High  | Low   | High  | Low   | High   | Low  | High   | Low   | High   | Low   | High   | Low  | High   | Low   | High | Low    | High |
| 1    | 2 1/2 | 9 1/2  | 3     | 7 1/2 | 1    | 7      | 1     | 7 1/2 | 1      | 1 1/2  | 1    | 7 1/2 | 1     | 7 1/2 | 1     | 5 1/2  | 1    | 5 1/2  | 1     | 1 1/2  | 1     | 8 1/2  | 1    | 8 1/2  | 1     | 3    | 8 1/2  |      |
| 2    | 3 1/2 | 9 1/2  | 3 1/2 | 7 1/2 | 2    | 7 1/2  | 2     | 7 1/2 | 1 1/2  | 2 1/2  | 2    | 7 1/2 | 2     | 7 1/2 | 2     | 6 1/2  | 2    | 6 1/2  | 2     | 2 1/2  | 2     | 9 1/2  | 2    | 9 1/2  | 2     | 4    | 9 1/2  |      |
| 3    | 3 1/2 | 9 1/2  | 3 1/2 | 7 1/2 | 3    | 8 1/2  | 3     | 7 1/2 | 2 1/2  | 3 1/2  | 3    | 7 1/2 | 3     | 7 1/2 | 3     | 8 1/2  | 3    | 8 1/2  | 3     | 2 1/2  | 3     | 10 1/2 | 3    | 10 1/2 | 3     | 5    | 10 1/2 |      |
| 4    | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 4    | 9      | 4     | 7 1/2 | 3 1/2  | 4 1/2  | 4    | 7 1/2 | 4     | 7 1/2 | 4     | 9      | 4    | 9      | 4     | 3 1/2  | 4     | 11 1/2 | 4    | 11 1/2 | 4     | 6    | 11 1/2 |      |
| 5    | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 5    | 10     | 5     | 7 1/2 | 4 1/2  | 5 1/2  | 5    | 7 1/2 | 5     | 7 1/2 | 5     | 10     | 5    | 10     | 5     | 4 1/2  | 5     | 12 1/2 | 5    | 12 1/2 | 5     | 7    | 12 1/2 |      |
| 6    | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 6    | 11 1/2 | 6     | 7 1/2 | 5 1/2  | 6 1/2  | 6    | 7 1/2 | 6     | 7 1/2 | 6     | 11 1/2 | 6    | 11 1/2 | 6     | 5 1/2  | 6     | 12 1/2 | 6    | 12 1/2 | 6     | 8    | 12 1/2 |      |
| 7    | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 7    | 11 1/2 | 7     | 7 1/2 | 6 1/2  | 7 1/2  | 7    | 7 1/2 | 7     | 7 1/2 | 7     | 11 1/2 | 7    | 11 1/2 | 7     | 6 1/2  | 7     | 12 1/2 | 7    | 12 1/2 | 7     | 9    | 12 1/2 |      |
| 8    | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 8    | 11 1/2 | 8     | 7 1/2 | 7 1/2  | 8 1/2  | 8    | 7 1/2 | 8     | 7 1/2 | 8     | 11 1/2 | 8    | 11 1/2 | 8     | 7 1/2  | 8     | 12 1/2 | 8    | 12 1/2 | 8     | 10   | 12 1/2 |      |
| 9    | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 9    | 11 1/2 | 9     | 7 1/2 | 8 1/2  | 9 1/2  | 9    | 7 1/2 | 9     | 7 1/2 | 9     | 11 1/2 | 9    | 11 1/2 | 9     | 8 1/2  | 9     | 12 1/2 | 9    | 12 1/2 | 9     | 11   | 12 1/2 |      |
| 10   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 10   | 11 1/2 | 10    | 7 1/2 | 9 1/2  | 10 1/2 | 10   | 7 1/2 | 10    | 7 1/2 | 10    | 11 1/2 | 10   | 11 1/2 | 10    | 9 1/2  | 10    | 12 1/2 | 10   | 12 1/2 | 10    | 12   | 12 1/2 |      |
| 11   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 11   | 11 1/2 | 11    | 7 1/2 | 10 1/2 | 11 1/2 | 11   | 7 1/2 | 11    | 7 1/2 | 11    | 11 1/2 | 11   | 11 1/2 | 11    | 10 1/2 | 11    | 12 1/2 | 11   | 12 1/2 | 11    | 13   | 12 1/2 |      |
| 12   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 12   | 11 1/2 | 12    | 7 1/2 | 11 1/2 | 12 1/2 | 12   | 7 1/2 | 12    | 7 1/2 | 12    | 11 1/2 | 12   | 11 1/2 | 12    | 11 1/2 | 12    | 12 1/2 | 12   | 12 1/2 | 12    | 14   | 12 1/2 |      |
| 13   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 13   | 11 1/2 | 13    | 7 1/2 | 12 1/2 | 13 1/2 | 13   | 7 1/2 | 13    | 7 1/2 | 13    | 11 1/2 | 13   | 11 1/2 | 13    | 12 1/2 | 13    | 12 1/2 | 13   | 12 1/2 | 13    | 15   | 12 1/2 |      |
| 14   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 14   | 11 1/2 | 14    | 7 1/2 | 13 1/2 | 14 1/2 | 14   | 7 1/2 | 14    | 7 1/2 | 14    | 11 1/2 | 14   | 11 1/2 | 14    | 13 1/2 | 14    | 12 1/2 | 14   | 12 1/2 | 14    | 16   | 12 1/2 |      |
| 15   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 15   | 11 1/2 | 15    | 7 1/2 | 14 1/2 | 15 1/2 | 15   | 7 1/2 | 15    | 7 1/2 | 15    | 11 1/2 | 15   | 11 1/2 | 15    | 14 1/2 | 15    | 12 1/2 | 15   | 12 1/2 | 15    | 17   | 12 1/2 |      |
| 16   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 16   | 11 1/2 | 16    | 7 1/2 | 15 1/2 | 16 1/2 | 16   | 7 1/2 | 16    | 7 1/2 | 16    | 11 1/2 | 16   | 11 1/2 | 16    | 15 1/2 | 16    | 12 1/2 | 16   | 12 1/2 | 16    | 18   | 12 1/2 |      |
| 17   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 17   | 11 1/2 | 17    | 7 1/2 | 16 1/2 | 17 1/2 | 17   | 7 1/2 | 17    | 7 1/2 | 17    | 11 1/2 | 17   | 11 1/2 | 17    | 16 1/2 | 17    | 12 1/2 | 17   | 12 1/2 | 17    | 19   | 12 1/2 |      |
| 18   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 18   | 11 1/2 | 18    | 7 1/2 | 17 1/2 | 18 1/2 | 18   | 7 1/2 | 18    | 7 1/2 | 18    | 11 1/2 | 18   | 11 1/2 | 18    | 17 1/2 | 18    | 12 1/2 | 18   | 12 1/2 | 18    | 20   | 12 1/2 |      |
| 19   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 19   | 11 1/2 | 19    | 7 1/2 | 18 1/2 | 19 1/2 | 19   | 7 1/2 | 19    | 7 1/2 | 19    | 11 1/2 | 19   | 11 1/2 | 19    | 18 1/2 | 19    | 12 1/2 | 19   | 12 1/2 | 19    | 21   | 12 1/2 |      |
| 20   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 20   | 11 1/2 | 20    | 7 1/2 | 19 1/2 | 20 1/2 | 20   | 7 1/2 | 20    | 7 1/2 | 20    | 11 1/2 | 20   | 11 1/2 | 20    | 19 1/2 | 20    | 12 1/2 | 20   | 12 1/2 | 20    | 22   | 12 1/2 |      |
| 21   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 21   | 11 1/2 | 21    | 7 1/2 | 20 1/2 | 21 1/2 | 21   | 7 1/2 | 21    | 7 1/2 | 21    | 11 1/2 | 21   | 11 1/2 | 21    | 20 1/2 | 21    | 12 1/2 | 21   | 12 1/2 | 21    | 23   | 12 1/2 |      |
| 22   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 22   | 11 1/2 | 22    | 7 1/2 | 21 1/2 | 22 1/2 | 22   | 7 1/2 | 22    | 7 1/2 | 22    | 11 1/2 | 22   | 11 1/2 | 22    | 21 1/2 | 22    | 12 1/2 | 22   | 12 1/2 | 22    | 24   | 12 1/2 |      |
| 23   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 23   | 11 1/2 | 23    | 7 1/2 | 22 1/2 | 23 1/2 | 23   | 7 1/2 | 23    | 7 1/2 | 23    | 11 1/2 | 23   | 11 1/2 | 23    | 22 1/2 | 23    | 12 1/2 | 23   | 12 1/2 | 23    | 25   | 12 1/2 |      |
| 24   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 24   | 11 1/2 | 24    | 7 1/2 | 23 1/2 | 24 1/2 | 24   | 7 1/2 | 24    | 7 1/2 | 24    | 11 1/2 | 24   | 11 1/2 | 24    | 23 1/2 | 24    | 12 1/2 | 24   | 12 1/2 | 24    | 26   | 12 1/2 |      |
| 25   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 25   | 11 1/2 | 25    | 7 1/2 | 24 1/2 | 25 1/2 | 25   | 7 1/2 | 25    | 7 1/2 | 25    | 11 1/2 | 25   | 11 1/2 | 25    | 24 1/2 | 25    | 12 1/2 | 25   | 12 1/2 | 25    | 27   | 12 1/2 |      |
| 26   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 26   | 11 1/2 | 26    | 7 1/2 | 25 1/2 | 26 1/2 | 26   | 7 1/2 | 26    | 7 1/2 | 26    | 11 1/2 | 26   | 11 1/2 | 26    | 25 1/2 | 26    | 12 1/2 | 26   | 12 1/2 | 26    | 28   | 12 1/2 |      |
| 27   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 27   | 11 1/2 | 27    | 7 1/2 | 26 1/2 | 27 1/2 | 27   | 7 1/2 | 27    | 7 1/2 | 27    | 11 1/2 | 27   | 11 1/2 | 27    | 26 1/2 | 27    | 12 1/2 | 27   | 12 1/2 | 27    | 29   | 12 1/2 |      |
| 28   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 28   | 11 1/2 | 28    | 7 1/2 | 27 1/2 | 28 1/2 | 28   | 7 1/2 | 28    | 7 1/2 | 28    | 11 1/2 | 28   | 11 1/2 | 28    | 27 1/2 | 28    | 12 1/2 | 28   | 12 1/2 | 28    | 30   | 12 1/2 |      |
| 29   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 29   | 11 1/2 | 29    | 7 1/2 | 28 1/2 | 29 1/2 | 29   | 7 1/2 | 29    | 7 1/2 | 29    | 11 1/2 | 29   | 11 1/2 | 29    | 28 1/2 | 29    | 12 1/2 | 29   | 12 1/2 | 29    | 31   | 12 1/2 |      |
| 30   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 30   | 11 1/2 | 30    | 7 1/2 | 29 1/2 | 30 1/2 | 30   | 7 1/2 | 30    | 7 1/2 | 30    | 11 1/2 | 30   | 11 1/2 | 30    | 29 1/2 | 30    | 12 1/2 | 30   | 12 1/2 | 30    | 31   | 12 1/2 |      |
| 31   | 4 1/2 | 10 1/2 | 4 1/2 | 7 1/2 | 31   | 11 1/2 | 31    | 7 1/2 | 30 1/2 | 31 1/2 | 31   | 7 1/2 | 31    | 7 1/2 | 31    | 11 1/2 | 31   | 11 1/2 | 31    | 30 1/2 | 31    | 12 1/2 | 31   | 12 1/2 | 31    | 31   | 12 1/2 |      |



BANGKOK TIDE TABLE.

| JUNE | A. M.  |        | P. M.  |        | AUG. | A. M.  |        | P. M.  |        | SEPT. | A. M.  |            | P. M.  |        | OCT.   | A. M.  |        | P. M.  |        |
|------|--------|--------|--------|--------|------|--------|--------|--------|--------|-------|--------|------------|--------|--------|--------|--------|--------|--------|--------|
|      | Low    | High   | Low    | High   |      | Low    | High   | Low    | High   |       | Low    | High       | Low    | High   |        | Low    | High   | Low    | High   |
| 1    | 4 1/2  | 6 1/2  | 4 1/2  | 7 1/2  | 1    | 5 1/2  | 9 1/2  | 5 1/2  | 9 1/2  | 1     | 6 1/2  | 12 1/2     | 5 1/2  | 9 1/2  | 1      | 7 1/2  | 10 1/2 | 7 1/2  | 10 1/2 |
| 2    | 5 1/2  | 8 1/2  | 5 1/2  | 8 1/2  | 2    | 6 1/2  | 10 1/2 | 6 1/2  | 10 1/2 | 2     | 7 1/2  | 1 1/2 P.M. | 6 1/2  | 10 1/2 | 2      | 7 1/2  | 11 1/2 | 8 1/2  | 11 1/2 |
| 3    | 6 1/2  | 9 1/2  | 6 1/2  | 9 1/2  | 3    | 7 1/2  | 11 1/2 | 7 1/2  | 11 1/2 | 3     | 8 1/2  | 2 1/2      | 7 1/2  | 11 1/2 | 3      | 8 1/2  | 12 1/2 | 9 1/2  | 12 1/2 |
| 4    | 7 1/2  | 10 1/2 | 7 1/2  | 10 1/2 | 4    | 8 1/2  | 12 1/2 | 8 1/2  | 12 1/2 | 4     | 9 1/2  | 3 1/2      | 8 1/2  | 12 1/2 | 4      | 9 1/2  | 1 1/2  | 10 1/2 | 1 1/2  |
| 5    | 8 1/2  | 11 1/2 | 8 1/2  | 11 1/2 | 5    | 9 1/2  | 1 1/2  | 9 1/2  | 1 1/2  | 5     | 10 1/2 | 4 1/2      | 9 1/2  | 1 1/2  | 5      | 10 1/2 | 2 1/2  | 11 1/2 | 2 1/2  |
| 6    | 9 1/2  | 12 1/2 | 9 1/2  | 12 1/2 | 6    | 10 1/2 | 2 1/2  | 10 1/2 | 2 1/2  | 6     | 11 1/2 | 5 1/2      | 10 1/2 | 2 1/2  | 6      | 11 1/2 | 3 1/2  | 12 1/2 | 3 1/2  |
| 7    | 10 1/2 | 1 1/2  | 10 1/2 | 1 1/2  | 7    | 11 1/2 | 3 1/2  | 11 1/2 | 3 1/2  | 7     | 12 1/2 | 6 1/2      | 11 1/2 | 3 1/2  | 7      | 12 1/2 | 4 1/2  | 1 1/2  | 4 1/2  |
| 8    | 11 1/2 | 2 1/2  | 11 1/2 | 2 1/2  | 8    | 12 1/2 | 4 1/2  | 12 1/2 | 4 1/2  | 8     | 1 1/2  | 7 1/2      | 12 1/2 | 4 1/2  | 8      | 1 1/2  | 5 1/2  | 2 1/2  | 5 1/2  |
| 9    | 12 1/2 | 3 1/2  | 12 1/2 | 3 1/2  | 9    | 1 1/2  | 8 1/2  | 1 1/2  | 8 1/2  | 9     | 2 1/2  | 8 1/2      | 1 1/2  | 9      | 2 1/2  | 9 1/2  | 3 1/2  | 3 1/2  | 6 1/2  |
| 10   | 1 1/2  | 4 1/2  | 1 1/2  | 4 1/2  | 10   | 2 1/2  | 9 1/2  | 2 1/2  | 9 1/2  | 10    | 3 1/2  | 9 1/2      | 2 1/2  | 10     | 3 1/2  | 10 1/2 | 4 1/2  | 4 1/2  | 7 1/2  |
| 11   | 2 1/2  | 5 1/2  | 2 1/2  | 5 1/2  | 11   | 3 1/2  | 10 1/2 | 3 1/2  | 10 1/2 | 11    | 4 1/2  | 10 1/2     | 3 1/2  | 11     | 4 1/2  | 11 1/2 | 5 1/2  | 5 1/2  | 8 1/2  |
| 12   | 3 1/2  | 6 1/2  | 3 1/2  | 6 1/2  | 12   | 4 1/2  | 11 1/2 | 4 1/2  | 11 1/2 | 12    | 5 1/2  | 11 1/2     | 4 1/2  | 12     | 5 1/2  | 12 1/2 | 6 1/2  | 6 1/2  | 9 1/2  |
| 13   | 4 1/2  | 7 1/2  | 4 1/2  | 7 1/2  | 13   | 5 1/2  | 12 1/2 | 5 1/2  | 12 1/2 | 13    | 6 1/2  | 12 1/2     | 5 1/2  | 13     | 6 1/2  | 1 1/2  | 7 1/2  | 7 1/2  | 10 1/2 |
| 14   | 5 1/2  | 8 1/2  | 5 1/2  | 8 1/2  | 14   | 6 1/2  | 1 1/2  | 6 1/2  | 1 1/2  | 14    | 7 1/2  | 2 1/2      | 6 1/2  | 14     | 7 1/2  | 3 1/2  | 8 1/2  | 8 1/2  | 11 1/2 |
| 15   | 6 1/2  | 9 1/2  | 6 1/2  | 9 1/2  | 15   | 7 1/2  | 3 1/2  | 7 1/2  | 3 1/2  | 15    | 8 1/2  | 4 1/2      | 7 1/2  | 15     | 8 1/2  | 5 1/2  | 9 1/2  | 9 1/2  | 12 1/2 |
| 16   | 7 1/2  | 10 1/2 | 7 1/2  | 10 1/2 | 16   | 8 1/2  | 4 1/2  | 8 1/2  | 4 1/2  | 16    | 9 1/2  | 5 1/2      | 8 1/2  | 16     | 9 1/2  | 6 1/2  | 10 1/2 | 10 1/2 | 1 1/2  |
| 17   | 8 1/2  | 11 1/2 | 8 1/2  | 11 1/2 | 17   | 9 1/2  | 5 1/2  | 9 1/2  | 5 1/2  | 17    | 10 1/2 | 6 1/2      | 9 1/2  | 17     | 10 1/2 | 7 1/2  | 11 1/2 | 11 1/2 | 3 1/2  |
| 18   | 9 1/2  | 12 1/2 | 9 1/2  | 12 1/2 | 18   | 10 1/2 | 6 1/2  | 10 1/2 | 6 1/2  | 18    | 11 1/2 | 7 1/2      | 10 1/2 | 18     | 11 1/2 | 8 1/2  | 12 1/2 | 12 1/2 | 4 1/2  |
| 19   | 10 1/2 | 1 1/2  | 10 1/2 | 1 1/2  | 19   | 11 1/2 | 7 1/2  | 11 1/2 | 7 1/2  | 19    | 12 1/2 | 8 1/2      | 11 1/2 | 19     | 12 1/2 | 9 1/2  | 1 1/2  | 1 1/2  | 5 1/2  |
| 20   | 11 1/2 | 2 1/2  | 11 1/2 | 2 1/2  | 20   | 12 1/2 | 8 1/2  | 12 1/2 | 8 1/2  | 20    | 1 1/2  | 9 1/2      | 12 1/2 | 20     | 1 1/2  | 10 1/2 | 2 1/2  | 2 1/2  | 6 1/2  |
| 21   | 12 1/2 | 3 1/2  | 12 1/2 | 3 1/2  | 21   | 1 1/2  | 9 1/2  | 1 1/2  | 9 1/2  | 21    | 2 1/2  | 10 1/2     | 1 1/2  | 21     | 2 1/2  | 11 1/2 | 3 1/2  | 3 1/2  | 7 1/2  |
| 22   | 1 1/2  | 4 1/2  | 1 1/2  | 4 1/2  | 22   | 2 1/2  | 10 1/2 | 2 1/2  | 10 1/2 | 22    | 3 1/2  | 11 1/2     | 2 1/2  | 22     | 3 1/2  | 12 1/2 | 4 1/2  | 4 1/2  | 8 1/2  |
| 23   | 2 1/2  | 5 1/2  | 2 1/2  | 5 1/2  | 23   | 3 1/2  | 11 1/2 | 3 1/2  | 11 1/2 | 23    | 4 1/2  | 12 1/2     | 3 1/2  | 23     | 4 1/2  | 1 1/2  | 5 1/2  | 5 1/2  | 9 1/2  |
| 24   | 3 1/2  | 6 1/2  | 3 1/2  | 6 1/2  | 24   | 4 1/2  | 12 1/2 | 4 1/2  | 12 1/2 | 24    | 5 1/2  | 1 1/2      | 4 1/2  | 24     | 5 1/2  | 2 1/2  | 6 1/2  | 6 1/2  | 10 1/2 |
| 25   | 4 1/2  | 7 1/2  | 4 1/2  | 7 1/2  | 25   | 5 1/2  | 2 1/2  | 5 1/2  | 2 1/2  | 25    | 6 1/2  | 3 1/2      | 5 1/2  | 25     | 6 1/2  | 3 1/2  | 7 1/2  | 7 1/2  | 11 1/2 |
| 26   | 5 1/2  | 8 1/2  | 5 1/2  | 8 1/2  | 26   | 6 1/2  | 3 1/2  | 6 1/2  | 3 1/2  | 26    | 7 1/2  | 4 1/2      | 6 1/2  | 26     | 7 1/2  | 4 1/2  | 8 1/2  | 8 1/2  | 12 1/2 |
| 27   | 6 1/2  | 9 1/2  | 6 1/2  | 9 1/2  | 27   | 7 1/2  | 4 1/2  | 7 1/2  | 4 1/2  | 27    | 8 1/2  | 5 1/2      | 7 1/2  | 27     | 8 1/2  | 5 1/2  | 9 1/2  | 9 1/2  | 1 1/2  |
| 28   | 7 1/2  | 10 1/2 | 7 1/2  | 10 1/2 | 28   | 8 1/2  | 5 1/2  | 8 1/2  | 5 1/2  | 28    | 9 1/2  | 6 1/2      | 8 1/2  | 28     | 9 1/2  | 6 1/2  | 10 1/2 | 10 1/2 | 3 1/2  |
| 29   | 8 1/2  | 11 1/2 | 8 1/2  | 11 1/2 | 29   | 9 1/2  | 6 1/2  | 9 1/2  | 6 1/2  | 29    | 10 1/2 | 7 1/2      | 9 1/2  | 29     | 10 1/2 | 7 1/2  | 11 1/2 | 11 1/2 | 4 1/2  |
| 30   | 9 1/2  | 12 1/2 | 9 1/2  | 12 1/2 | 30   | 10 1/2 | 7 1/2  | 10 1/2 | 7 1/2  | 30    | 11 1/2 | 8 1/2      | 10 1/2 | 30     | 11 1/2 | 8 1/2  | 12 1/2 | 12 1/2 | 5 1/2  |
| 31   | 10 1/2 | 1 1/2  | 10 1/2 | 1 1/2  | 31   | 11 1/2 | 8 1/2  | 11 1/2 | 8 1/2  | 31    | 12 1/2 | 9 1/2      | 11 1/2 | 31     | 12 1/2 | 9 1/2  | 1 1/2  | 1 1/2  | 6 1/2  |

**BANGKOK TIDE TABLE.**

| NOV. | A. M.            |                  | P. M.           |                  | DEC. | A. M.           |                  | P. M.            |                  |
|------|------------------|------------------|-----------------|------------------|------|-----------------|------------------|------------------|------------------|
|      | Low              | High             | Low             | High             |      | Low             | High             | Low              | High             |
| 1    | 6                | 12 $\frac{1}{2}$ | 2 $\frac{1}{2}$ | 11               | 1    | 6 $\frac{1}{2}$ | 12 $\frac{1}{2}$ | 9                | 12 $\frac{1}{2}$ |
| 2    | 7                | 12 $\frac{1}{2}$ | 3 $\frac{1}{2}$ | 11               | 2    | 5 $\frac{1}{2}$ | 12 $\frac{1}{2}$ | 10 $\frac{1}{2}$ | 12 $\frac{1}{2}$ |
| 3    | 8                | 12               | 3 $\frac{1}{2}$ | 11               | 3    | 4 $\frac{1}{2}$ | 8 $\frac{1}{2}$  | 0                | 11 $\frac{1}{2}$ |
| 4    | 9                | 10               | 3 $\frac{1}{2}$ | 11               | 4    | 3 $\frac{1}{2}$ | 6 $\frac{1}{2}$  | 0                | 10 $\frac{1}{2}$ |
| 5    | 6 $\frac{1}{2}$  | 11               | 4               | 4 $\frac{1}{2}$  | 5    | 2 $\frac{1}{2}$ | 7                | 0 $\frac{1}{2}$  | 9 $\frac{1}{2}$  |
| 6    | 11               | 6 $\frac{1}{2}$  | 5               | 4 $\frac{1}{2}$  | 6    | 1 $\frac{1}{2}$ | 6 $\frac{1}{2}$  | 1                | 8 $\frac{1}{2}$  |
| 7    | 11               | 7 $\frac{1}{2}$  | 7               | 5 $\frac{1}{2}$  | 7    | 1 $\frac{1}{2}$ | 7 $\frac{1}{2}$  | 1 $\frac{1}{2}$  | 7 $\frac{1}{2}$  |
| 8    | 2 $\frac{1}{2}$  | 8 $\frac{1}{2}$  | 8               | 5 $\frac{1}{2}$  | 8    | 2 $\frac{1}{2}$ | 8                | 2 $\frac{1}{2}$  | 6 $\frac{1}{2}$  |
| 9    | 3                | 9 $\frac{1}{2}$  | 9               | 6                | 9    | 3 $\frac{1}{2}$ | 8 $\frac{1}{2}$  | 3 $\frac{1}{2}$  | 5 $\frac{1}{2}$  |
| 10   | 3 $\frac{1}{2}$  | 9 $\frac{1}{2}$  | 10              | 6 $\frac{1}{2}$  | 10   | 4 $\frac{1}{2}$ | 9 $\frac{1}{2}$  | 4                | 4 $\frac{1}{2}$  |
| 11   | 4                | 10 $\frac{1}{2}$ | 11              | 6 $\frac{1}{2}$  | 11   | 4 $\frac{1}{2}$ | 10               | 4 $\frac{1}{2}$  | 4 $\frac{1}{2}$  |
| 12   | 4 $\frac{1}{2}$  | 11               | 12              | 7 $\frac{1}{2}$  | 12   | 4 $\frac{1}{2}$ | 10 $\frac{1}{2}$ | 5 $\frac{1}{2}$  | 5 $\frac{1}{2}$  |
| 13   | 5 $\frac{1}{2}$  | 11 $\frac{1}{2}$ | 13              | 7 $\frac{1}{2}$  | 13   | 4 $\frac{1}{2}$ | 10 $\frac{1}{2}$ | 6 $\frac{1}{2}$  | 6 $\frac{1}{2}$  |
| 14   | 5 $\frac{1}{2}$  | 12 $\frac{1}{2}$ | 14              | 4 $\frac{1}{2}$  | 14   | 5               | 10               | 6 $\frac{1}{2}$  | 10 $\frac{1}{2}$ |
| 15   | 5 $\frac{1}{2}$  | 12 $\frac{1}{2}$ | 15              | 1                | 15   | 5               | 10               | 9                | 11 $\frac{1}{2}$ |
| 16   | 5 $\frac{1}{2}$  | 12 $\frac{1}{2}$ | 16              | 1                | 16   | 5               | 10               | 9                | 11 $\frac{1}{2}$ |
| 17   | 6                | 12 $\frac{1}{2}$ | 17              | 1 $\frac{1}{2}$  | 17   | 7               | 10               | 9 $\frac{1}{2}$  | 11 $\frac{1}{2}$ |
| 18   | 7                | 12 $\frac{1}{2}$ | 18              | 2 $\frac{1}{2}$  | 18   | 7               | 9                | 11 $\frac{1}{2}$ |                  |
| 19   | 7 $\frac{1}{2}$  | 12               | 19              | 3 $\frac{1}{2}$  | 19   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 20   | 8                | 11               | 20              | 4 $\frac{1}{2}$  | 20   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 21   | 8 $\frac{1}{2}$  | 10               | 21              | 5 $\frac{1}{2}$  | 21   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 22   | 9                | 9 $\frac{1}{2}$  | 22              | 6                | 22   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 23   | 9 $\frac{1}{2}$  | 9 $\frac{1}{2}$  | 23              | 6 $\frac{1}{2}$  | 23   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 24   | 10               | 8 $\frac{1}{2}$  | 24              | 7                | 24   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 25   | 10 $\frac{1}{2}$ | 8 $\frac{1}{2}$  | 25              | 7 $\frac{1}{2}$  | 25   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 26   | 11               | 8                | 26              | 8                | 26   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 27   | 11 $\frac{1}{2}$ | 7 $\frac{1}{2}$  | 27              | 8 $\frac{1}{2}$  | 27   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 28   | 12 $\frac{1}{2}$ | 7                | 28              | 9                | 28   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 29   | 12 $\frac{1}{2}$ | 6 $\frac{1}{2}$  | 29              | 10 $\frac{1}{2}$ | 29   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 30   | 12 $\frac{1}{2}$ | 6 $\frac{1}{2}$  | 30              | 11 $\frac{1}{2}$ | 30   | 8               | 8                | 11 $\frac{1}{2}$ |                  |
| 31   | 12 $\frac{1}{2}$ | 6 $\frac{1}{2}$  | 31              | 12               | 31   | 8               | 8                | 11 $\frac{1}{2}$ |                  |

**NOTE.**

The preceding and following Tables are from the pen of Dr. James Campbell, R.N., F.R.G.S.L.,—the results of whose patient and laborious research, have appeared in the Bangkok Calendars, since the year 1859. The residents of Bangkok are indebted to him for a full and complete Tide-table for the past year, which was the first attempt ever made to reduce the apparently inexplicable maze of the tides at Bangkok to a regular system, and with the accuracy of which, those who have taken the trouble to examine it thoroughly, have been surprised. The table for the present year, has been revised and corrected by the results of a year's careful observations. The meteorological Tables are no less valuable and interesting, though they may not seem to be so directly applicable to the wants of every day life.

In using the Tide-table it should be kept in mind that the times therein given, are the hours when the water *actually begins to rise or fall*, and not when it commences to *run* up or down, as the latter cannot be made a standard, for at some seasons the water does not run up at all in the river, and it is always subject to more or less irregularity.

# METEOROLOGICAL TABLES.

Prepared by Dr. James Campbell during the year 1861.

| MONTHS    | THERMOMETER.   |         |         |                  |         |        | BAROMETER.     |         |         |                  |         |        | ANEMOMETER.       |  | PLUVIOMETER.             |        |
|-----------|----------------|---------|---------|------------------|---------|--------|----------------|---------|---------|------------------|---------|--------|-------------------|--|--------------------------|--------|
|           | Mean height at |         |         | Extremes & Means |         |        | Mean height at |         |         | Extremes & Means |         |        | General Direction |  | Days on which rain fell. |        |
|           | 9½ A.M.        | 8¼ P.M. | 9¼ P.M. | MAXIMUM          | MINIMUM | MEDIUM | 9½ A.M.        | 3¼ P.M. | 9¼ P.M. | MAXIMUM          | MINIMUM | MEDIUM | General Direction |  | NO. AMOUNT               |        |
| January   | 77.4           | 84.5    | 79.1    | 87.5             | 68.5    | 78.50  | 29.884         | 29.765  | 29.839  | 29.99            | 29.61   | 29.824 | N. NNE. S.        |  | 2                        | 2710   |
| February  | 75.1           | 82.0    | 78.7    | 90.0             | 63.2    | 77.02  | 29.888         | 29.759  | 29.818  | 30.05            | 29.65   | 29.821 | N. NNE. S. SSE.   |  | 5                        | 7549   |
| March     | 81.4           | 88.0    | 83.0    | 90.5             | 74.0    | 82.56  | 29.857         | 29.722  | 29.799  | 29.95            | 29.67   | 29.789 | NE. S. SSE.       |  | 6                        | 23538  |
| April     | 80.2           | 85.4    | 81.2    | 91.0             | 73.0    | 81.28  | 29.781         | 29.642  | 29.741  | 29.88            | 29.58   | 29.712 | NNE. S. SSW.      |  | 21                       | 40454  |
| May       | 82.0           | 86.5    | 82.6    | 93.0             | 73.9    | 82.39  | 29.716         | 29.594  | 29.693  | 29.83            | 29.48   | 29.655 | N. SSE. SSW.      |  | 20                       | 106149 |
| June      | 81.6           | 85.0    | 81.7    | 89.0             | 76.0    | 81.85  | 29.735         | 29.629  | 29.720  | 29.80            | 29.55   | 29.682 | S. SSW. SW.       |  | 22                       | 98802  |
| July      | 81.3           | 84.9    | 80.6    | 90.0             | 74.3    | 81.28  | 29.727         | 29.632  | 29.712  | 29.80            | 29.53   | 29.679 | SSW. SW. WSW      |  | 16                       | 71734  |
| August    | 80.8           | 84.8    | 81.0    | 89.5             | 75.7    | 81.07  | 29.733         | 29.618  | 29.714  | 29.82            | 29.55   | 29.675 | ditto             |  | 22                       | 33675  |
| September | 80.4           | 83.6    | 80.1    | 88.5             | 74.8    | 80.75  | 29.730         | 29.618  | 29.718  | 29.87            | 29.58   | 29.674 | S. SSW. NW. N.    |  | 26                       | 88238  |
| October   | 79.7           | 83.0    | 79.9    | 87.5             | 71.6    | 79.64  | 29.790         | 29.672  | 29.741  | 29.89            | 29.52   | 29.731 | N. NNE. NNW. SSW  |  | 17                       | 66894  |
| November  | 79.8           | 82.7    | 79.1    | 87.0             | 68.9    | 79.64  | 29.877         | 20.760  | 29.821  | 29.99            | 29.66   | 29.815 | N. NNE. NE. NNW.  |  | 12                       | 72692  |
| December  | 75.4           | 80.6    | 75.6    | 85.5             | 62.8    | 75.44  | 29.967         | 29.827  | 29.921  | 30.02            | 29.79   | 29.897 | NNW. N. NNE.      |  | 4                        | 01741  |
| Annual    | 79.6           | 84.2    | 80.2    | 93.0             | 62.8    | 80.12  | 29.806         | 29.686  | 29.769  | 30.05            | 29.48   | 29.746 |                   |  | 173                      | 614126 |

## HYGROMETER.

Temperature of dew-point,

| At.                                                                 | Jan.  | Feb.  | Mar.  | April. | May.  | June. | July. | Aug.  | Sep.  | Oct.  | Nov.  | Dec.  | Mean. |
|---------------------------------------------------------------------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 9½ A. M.                                                            | 69.4  | 67.2  | 74.5  | 74.8   | 75.6  | 77.3  | 75.0  | 74.5  | 75.5  | 73.3  | 73.0  | 68.2  | 73.2  |
| 3½ P. M.                                                            | 69.0  | 69.0  | 73.5  | 75.7   | 76.0  | 78.6  | 77.0  | 73.6  | 76.0  | 74.3  | 72.4  | 69.3  | 73.7  |
| 9½ P. M.                                                            | 71.3  | 69.0  | 75.2  | 76.0   | 76.8  | 71.0  | 76.6  | 69.6  | 75.6  | 74.8  | 73.3  | 68.7  | 73.2  |
| <i>Weight of Vapor in a cubic foot of air.</i>                      |       |       |       |        |       |       |       |       |       |       |       |       |       |
| 9½ A. M.                                                            | 7.77  | 7.37  | 9.03  | 9.15   | 9.37  | 9.88  | 9.20  | 9.07  | 9.37  | 8.75  | 8.64  | 7.46  | 8.75  |
| 3½ P. M.                                                            | 7.44  | 7.55  | 8.64  | 9.34   | 9.40  | 10.23 | 9.71  | 8.72  | 9.45  | 8.96  | 8.45  | 7.64  | 8.88  |
| 9½ P. M.                                                            | 8.20  | 7.60  | 9.21  | 9.50   | 9.71  | 10.19 | 9.65  | 7.72  | 9.37  | 9.15  | 8.75  | 7.60  | 8.89  |
| <i>Weight of Vapor required for saturating a cubic foot of air.</i> |       |       |       |        |       |       |       |       |       |       |       |       |       |
| 9½ A. M.                                                            | 2.12  | 1.94  | 2.44  | 1.66   | 2.13  | 1.59  | 1.94  | 2.07  | 1.44  | 2.05  | 2.17  | 2.14  | 1.97  |
| 3½ P. M.                                                            | 4.90  | 3.93  | 5.04  | 3.38   | 3.70  | 2.30  | 2.82  | 3.81  | 2.54  | 2.86  | 3.37  | 3.33  | 3.50  |
| 9½ P. M.                                                            | 2.30  | 2.90  | 2.60  | 1.64   | 2.10  | 1.28  | 1.49  | 3.42  | 1.44  | 1.66  | 1.75  | 1.85  | 2.03  |
| <i>Degree of Humidity.</i>                                          |       |       |       |        |       |       |       |       |       |       |       |       |       |
| 9½ A. M.                                                            | 0.786 | 0.792 | 0.787 | 0.847  | 0.814 | 0.862 | 0.826 | 0.814 | 0.807 | 0.810 | 0.799 | 0.777 | 0.815 |
| 3½ P. M.                                                            | 0.611 | 0.659 | 0.631 | 0.735  | 0.718 | 0.817 | 0.775 | 0.696 | 0.787 | 0.758 | 0.715 | 0.696 | 0.716 |
| 9½ P. M.                                                            | 0.781 | 0.724 | 0.778 | 0.853  | 0.822 | 0.884 | 0.866 | 0.693 | 0.867 | 0.840 | 0.833 | 0.804 | 0.812 |

[TRANSLATION.]

## THE HISTORY OF CAMBODIA.

FOR THE LAST THREE HUNDRED YEARS OR MORE.

CAMBODIA was formerly a large, powerful, and independent nation, and its King was often at war with Siam. On some occasions the Cambodians were victorious, and succeeded in subjugating portions of Siamese territory; and at other times, the Siamese had the advantage, and obtained some of the Cambodian provinces.

During the reign of His Siamese Majesty P'rā Chòw Mähá Chäkráp'ät, who reigned in Ayuthia, in the Siamese civil era 900, or Christian era 1540, the Siamese were at war with the Peguans. The Cambodians attacked the Siamese in the opposite direction, and marched their forces as far as Bangnah and P'räkänóng, on the river Chòw P'aya, but they did not ascend the river to the Capital. After the Peguan invasion had been repelled, the Siamese King P'rā Chau Mähá Chäkráp'ät raised an army to avenge this attack on his dominions, and marched to the capital of Cambodia itself. The King of Cambodia acknowledged himself vanquished, and offered to become tributary to the King of Siam, who accepted the proposition, and requested two of his sons as hostages. One of the sons was made governor of Săwánkälòk—the other was retained at the Capital for many years. On the decease of the King of Cambodia, the King of Siam was about to send the son whom he had made governor of Săwánkälòk, to become King of Cambodia; but one of the princes, a relative of the late King, who was in charge of the Government, resisted, and begged the assistance of Cochin-China to oppose the Siamese authority. The King of Siam raised an army to send with the sons of the late King, to place them on the throne, but the army was defeated by the Cochin Chinese and Cambodians. Soon after, Siam was subjected by the Peguans, and Cambodia remained for a time under the authority of the Cochin Chinese. When however Siam asserted her independence, and was engaged in war with Pegu, the Cambodians made an attack on the east, as formerly. Afterwards the King of Siam collected his forces, marched into Cambodia, captured and put to death the King of Cambodia, and made one of the princes who was friendly to Siam, ruler of Cambodia, subject to Siam. The King of Siam has established the rulers of Cambodia from that time for more than 300 years, and she has been obliged to pay an annual tribute to Siam. At times disturbances have arisen in regard to the

change of rulers, and sometimes the people have rebelled, and the rulers have been compelled to flee for assistance to Siam, but at length they have always been obliged to acknowledge their allegiance to Siam.

To give the whole history of the country would be too tedious, and is unnecessary. It will be amply sufficient to speak only of comparatively recent events, from the Siamese civil era 1100, or Christian era 1750, down to the present time.—At that time, in the reign of Somdetch Phra Bārōmākōt, King of Siam, the seventh reign previous to the present, Cambodia was tributary to Siam, and the former ruler of Cambodia having died, Nāk Ong Ton his son, governed under the title of Somdetch P'rā Ut'eī Racha; but the other members of the family would not consent, and civil war was the consequence, Nāk Ong Ton slew a large number of the governing family. The princes were unable to overcome him, and many of them fled into Siam for protection. The chief enemy of Nāk Ong Ton was Nāk Ong Non, who had the title of Somdet P'rā Ram, and was a distant relative of Nāk Ong Ton.—Nāk Ong T'ong hesitated about governing Cambodia, for fear that the princes and nobles who had fled to Siam would obtain assistance, and return and seize the government. He therefore sent an embassy to seek the protection of Cochin China, and also another embassy to beg the King of Siam for a seal and appointment as Viceroy of Cambodia. The King of Siam and his nobles seeing that Nāk Ong Ton was the eldest son of the late Viceroy, and being in favor with many of the people, and being already in charge of the Government, sent him a commission as Viceroy under the title of Somdetch P'rā Narai Rama T'ibodi, and Cambodia was subject and paid tribute to Siam.

His Majesty Somdetch P'ra Boromanāt Rajadhirāj the King of Siam deceased, his son Chau Fa Ekat'āt succeeded to the throne. During his reign a war broke out with Burmah which resulted in the capture of the Siamese capital by the Burmese in the Siamese civil era 1129, or Christian era 1767. At that time some of the princes and nobles of Cambodia, who were in the Capital perished, some fled, and others concealed themselves; but Nāk Ong Non succeeded in escaping, and many of the princes and nobles fled to Nāk Ong Ton Viceroy of Cambodia. At that time there was a Siam-born Chinese named Tee Tak Sin formerly Governor of Muang Tak, and afterwards promoted to be Governor of Muang Kāmp'ang P'et. At the time of the overthrow of Ayuthia the Capital, he fled to Chantabun, and collected an army, and gained great power. At the same time, a Cambodian prince named Nāk P'ra Sotat, a relative of the Viceroy of Cambodia, residing at Kampot, raised an army and entered the Siamese province of Krat and carried away the inhabitants. P'ya Tak who had established himself in Chantabun, marched and attacked Nāk P'ra Sotat and put him to flight. Afterwards P'ya Tak came to Bangkok, and established his capital at T'on-buree, on the opposite side of the river from the present royal palace. He became

King of Siam in the year 1131 Siamese civil era, or Christian era 1769. At that time the Cambodian prince Nāk Ong Non who had concealed himself at the time of the overthrow of Ayuthia, brought in his followers and joined P'ya Tak, and then wrote a letter to the Viceroy of Cambodia, informing him that the kingdom of Siam had been reestablished, and directing him to pay the customary tribute. Nāk Ong Ton refused, saying that the King was not of the royal family of Siam. His Majesty the King of Siam was offended, and sent a land and sea force against Cambodia. The sea force took Kampot and Phu Tai Mat or Kangkaw. He then led his sea force to join the land army against the capital. Nāk Ong Ton the Viceroy of Cambodia took his family and fled to Cochin China, and begged the assistance of the Cochin Chinese to keep the capital. The land forces succeeded in taking possession of the country as far as P'ra Tabong and Nākon Siamrāp. The sea forces took Kampot and Kangkaw, and when the Siamese and Cochin Chinese armies had fought till the end of the season without either gaining the advantage, they led back their forces. The King of Siam placed Nāk Ong Non as governor of Kampot, and made a Chinaman governor of Kangkaw. The commander of the Siamese land forces remained at P'rā Tabong, and afterwards harassed the Cambodians. At the same time war broke out between Huè and Tongquin. The Viceroy of Cambodia thinking that the Cochin Chinese being at war would be unable to give him any assistance, and the Cambodians being unable to resist the Siamese, sent Nāk P'ra Ong Kéo, a near relative, to the General of the Siamese force at P'ra Tabong, offering to pay tribute as formerly. The General commanding the army sent the ambassador to the Capital. The King of Siam consented but desired the P'ra Ong Kéo should remain in Siam as an hostage. The Viceroy of Cambodia consented, and sent the family of Nāk P'ra Ong Kéo. But Nāk Ong Non the Governor of Kampot, refused to submit to the Viceroy of Cambodia, but reported directly to the Siamese. On this account the Viceroy of Cambodia, thinking that the two provinces being widely separated, and that there might arise differences between him and the Governor of Kampot, and that Nāk Ong Non being on terms of intimacy with the King of Siam, would have the advantage, and the King of Siam would listen only to him, consulted with the Cambodian nobles, and consented to deliver the government of Cambodia to Nāk Ong Non the governor of Kampot and to become himself second ruler. He presented the subject to the King of Siam, who was gratified, and made Nāk Ong Non Viceroy of Cambodia. In about three years Nāk Ong Ton who had descended to be second ruler died, and Nāk Ong Non became sole ruler of Cambodia under the authority of the King of Siam, and the only province of Cambodia that was directly subject to Siam was Kangkaw. Nāk Ong Non became an oppressive ruler, and the people suffered in various ways. At that time the Governor of Saigon begged a Cambodian army to assist in the war that was

raging in Cochin China, on account of the friendship that had existed with Cambodia during the rule of Nāk Ong Ton. Nāk Ong Non refused, saying that Cambodia was not tributary to Cochin China as formerly, thus giving cause of offense to the Cochin Chinese. At the same time the King of Siam became deranged, and did not properly attend to the Government. The officers and people of Cambodia who were opposed to Nāk Ong Non hearing of it, went and plotted with the Cochin Chinese Governor of Saigon, and came and fought with Nāk Ong Non the Viceroy of Cambodia, and took him captive, and killed him and his four sons. There were left in Cambodia of the ruling family but five princesses, two of whom were the younger sisters, and three the daughters of the former Viceroy P'ra Ong Ton, who had descended to be second ruler, and one prince Nāk Ong Eng, seven years old, the son of P'ra Ong Ton the former Viceroy of Cambodia. The Cambodian officers who had rebelled against Nāk Ong Non, made Nāk P'ra Ong Eng the ruler. When the King of Siam learned these facts he was displeased, and dispatched an army under the command of Chow Phya Maha Krasat Suk, to reduce Cambodia. The army proceeded as far as P'ra Tabong. His Majesty the King of Siam becoming more deranged, and oppressing the people in various ways, P'ya San with a number of adherents rose in rebellion, and surrounded the King, siezed him and a number of his nobles, and took possession of the palace. All the lesser nobles and the people refused to permit P'ya San to assume the government of the country, and sent an invitation to Chau P'ya Maha Krasat Suk, the General commanding the army, to return and assume the Government of the country. He returned and was crowned King of Siam in the Siamese civil era 1144, or Christian era 1782. This King was the first of the present dynasty, and is known by the title of P'ra Budh Yòt Fa Chulalòky. After his coronation he established his palace and capital on the eastern bank of the river, opposite T'onburee, which he named Krung Tép P'ra Maha Nak'on Ratana-kosinde Mahintara Yuthaya.

The Cambodian nobles who had made Nāk Phrā Ong Eng the ruler of Cambodia, fearing the power of the King of Siam, sent tribute, and requested to be taken under the protection of the King of Siam again. Phya Yomerat of Cambodia, named Tao Chu Běn, formerly a follower of Nāk Ong Non, and who was at the Capital when it was established at T'on Buri during the reign of P'ya Tāk was much trusted by His Majesty the King of Siam. His Majesty sent him to Cambodia to assist in the government of that country. P'ya Yomaràt had not been long in Cambodia until he quarreled with the higher Cambodian nobles, and put three of them to death, and directed the affairs of the government as he pleased.

The Malay inhabitants of Cambodia excited disturbances throughout the country, which P'ya Yomaràt and the other Cambodian nobles were unable to quell. The Viceroy Nāk P'ra Ong Eng with five Cambodian princesses fled to Siam for protection.



The Cochin Chinese of Saigon who were near, hearing that the Viceroy of Cambodia and his nobles had fled, raised an army and subdued the Malayan subjects, and held the country. The Siamese did not march an army against the Malays and retake the country from the Cochin Chinese, as they were engaged in war with Burmah. Not long after, Huè the capital of Cochin China was captured by the Tonquinese, and Chien Su, the son of the King of Cochin China, and the ancestor of the present King of that country, was obliged to flee and take protection under the King of Siam. The Cochin Chinese who had taken possession of Cambodia, retired of their own accord. The officers and people of Cambodia sent information to Siam, and requested that Nāk P'ra Ong Eng and P'ya Yomaràt should return and assume the government of Cambodia. His Majesty the King of Siam thinking that Nāk P'ra Ong Eng was still very young, and would be unable to protect himself, and also being the only remaining Cambodian prince, his life was precious; like a precious gem difficult to find, and another disturbance might arise as before, and he might meet with some misfortune, decided to send P'ya Yomaràtcha Bën to govern the country in the meantime, saying that when Nāk P'ra Ong Eng attained a suitable age, he would send him as Viceroy of Cambodia. P'ya Yomaràtcha Bën governed the country for twelve years, and during that time Nāk P'ra Ong Eng remained at the capital of Siam, and there were born to him four sons,—Nāk Ong Chăn, Nāk Ong Pim, Nāk Ong Sagunan, and Nāk Ong Im.

In the year 1156 of the Siamese era, or 1794 of the Christian era, Nāk P'ra Ong Eng having reached the age of 22, His Siamese Majesty P'ra B'ndh Yòt Fa Chulabky made him ruler or Viceroy of Cambodia with the title of His Highness Somdet P'ra Narai Rama T'ibodi Chow Krung Kampucha,—and entrusted the interests of Cambodia to Chow Fa Talahã: named Tao Chu Bok, who had been the guardian of Nāk P'ra Ong Eng from his infancy, placing full power in his hand, and charging him to maintain the interests of Nāk P'ra Ong Eng, who had been made Viceroy. Chow P'ya Yomaratcha Bën had ruled Cambodia for twelve years in a manner worthy of praise; but as he was of the party of Nāk P'ra Ong Non the former Viceroy, His Majesty the King of Siam feared he might not cordially agree with the new Viceroy and his Minister Chow Fa Talahã. His Majesty therefore begged the provinces of P'ratabong and its dependences, and the province of Nakon Siamràp, which are near the Siamese boundary, to be made provinces of Siam proper, in order to make P'ya Yomaratcha Bën governor directly under the Siamese authority, without being subject to the control of the Viceroy of Cambodia. This was done in order that Chow P'ya Yomaratcha Bën might not be displeased by his removal from the Government of Cambodia, in which he had committed no offense. His Highness Nāk P'ra Ong Eng the Viceroy, and his Minister Somdetch Chau Fa Talahã: gladly complied with

this request. From that time, those provinces have formed part of Siam properly, and have had no connection with Cambodia.

His Highness Somdetch P'ra Narai (Nāk P'ra Ong Eng) governed Cambodia for three years, until the Siamese civil era 1188, or Christian era 1796, and had one son more, Nāk Ong Duang. At the end of that year His Highness deceased. All his five sons were still young, the eldest—Nāk Ong Chan—being only six years old. His Majesty the King of Siam ordered that the minister of His late Highness, Chau Fa Talahā: should govern Cambodia, and take the guardianship of the five sons of His late Highness the Viceroy, and that afterwards should either of these sons attain a suitable age, and show sufficient abilities, he would select one to be Viceroy of Cambodia. Somdet Chow Fa Talahā: governed Cambodia for ten years—during that time one of the sons of the late Viceroy died, and there were still four sons remaining. In the year 1168 of the Siamese civil era, or 1806 of the Christian era, Somdet Chow Fa Talahā: seeing that he was growing old, and Nāk P'ra Ong Chan being 16 years of age, and Nāk P'ra Ong Sagnuan and Nāk P'ra Ong Im 13 years, and thinking that they had arrived at a suitable age, brought them to pay their respects to the King of Siam. Upon reaching the Capital, His Excellency Chow Fa Talahā: was taken sick and died. His Majesty the King of Siam attended the obsequies of His Excellency, and then appointed Nāk Ong Chan Viceroy of Cambodia, with the title of His Highness P'ra Ut'ei Racha T'irat, and appointed P'ya Chakri and P'ya Kralahōm as Ministers to assist him in the Government.

As to the affairs of Cochin China, the prince Chien Su, the son of the former King of Cochin China, who had fled to Siam for refuge, obtained information that his friends in Cochin China had gained sufficient power to think of attacking and retaking Cochin China from the King of Tonquin. He therefore took his leave of the King of Siam, and went to Saigon in the year 1149 of the Siamese civil era, or Christian era 1778. He fought with Tonquin to retake Cochin China. During this war, and while Chien Su was in Saigon, P'ya Racha Sēt'i the governor of Kangkaw deceased. Before the information of his death had reached the capital of Siam, the prince Chien Su who was near, hearing of his death, placed a Cochin Chinese Governor at Kangkaw and then sent information of his death to the Siamese Capital, and informed His Majesty that as many of the inhabitants were Cochin Chinese, and were without any protection, he had made a Cochin Chinese of suitable rank governor for the protection of the people, and the proper preservation of the country, believing that His Siamese Majesty would approve of the arrangement, as it would be for the benefit of the country—If in this matter he had done wrong, he begged His Majesty's pardon—that being near to Kangkaw he had only desired to do his Majesty a favor by promoting the welfare of that place. His Siamese Majesty P'ra Budh Yōt Fa Chulalōky learning

these facts, saw that Prince Chien Su desired to beg the province of Kangkaw. Should His Majesty not consent to bestow the province, it would be a source of difficulty, and should His Majesty dispute the matter by force, Prince Chien Su had but little power, and whether he would be able to retake the whole of Cochin China as he desired, was yet uncertain, and at that time he was accustomed to send tribute. His Majesty therefore had compassion on him and made no reply, and from that time Kangkaw has been a part of Cochin China.

Prince Chien Su carried on the war with Prince Kai Sune until he retook the whole of Cochin China, of which he became King, and established his capital at Hué, and then he sent an ambassador with presents to promote friendship with the King of Siam. Afterwards he manifested a disposition to intrude on the boundaries of Cambodia. At the time that His Highness Nāk Ong Chan became Viceroy of Cambodia, seeing that he was young, he sent men to enter within the boundaries of Cambodia to frighten and oppress the people of that country. These facts were known to the King of Siam, but he thought it was too small a matter to cause a breach with the King of Cochin China. His Highness the Viceroy of Cambodia being often solicited and seeing that Cambodia was nearer to Cochin China than to Siam, he decided to make submission to Cochin China in the same manner that his grand-father Nāk P'ra Ong Ton the former Viceroy of Cambodia had done. He therefore sent ambassadors with tribute to the King of Cochin China, offering to send tribute once every three years. The King of Cochin China received the tribute, and presented him a seal to use as the Government seal. This seal was made of Cochin Chinese letters or characters, and the seal which the King of Siam had given to the Viceroy of Cambodia was a Pagoda spire. This seal can be used by a Viceroy alone—when there is no Viceroy, the seal must be returned, and be kept at the capital of Siam.

In the Siamese civil era 1171, or Christian era 1809, His Majesty Somdetch P'ra Budh Yot Fa Chulaloky deceased. His royal eldest son, who was the Second King, ascended the throne, and is known by the title of P'ra Bard Somdetch P'ra Budh Lod Lah Nobhalay. When His Majesty commenced his reign, His Highness Ong Chan the Viceroy of Cambodia sent his younger brothers Nāk Ong Sagnnan and Nāk Ong Im to pay their respects to His Majesty as bearers of tribute, and to receive the 'water of allegiance', but did not himself come to pay his respects. His Majesty was pleased to appoint Nāk Ong Sangwan to the rank of Somdetch P'ra Cheichët Yēt'a Maha Upayorat, and Nāk Ong Im to the rank of P'ra Si Chayachët Maha Uparat, and then sent them back to Cambodia. Their elder brother the Viceroy was displeased that the King of Siam had elevated his two younger brothers to the rank of Maha Upayorat and Maha Uperat without consulting him, which he thought would be the occasion of his two younger brothers refusing to pay proper respect to him.

When many things of like nature had been said, and complaints had been made concerning this matter, suspicions and doubts arose between the brothers. His Highness the Viceroy consulted with his Cambodian nobles in regard to requesting the King of Siam to release him from the payment of the annual tribute, and that they might pay tribute only once every three years, as they were accustomed to do to Cochin China. But Somdetch P'ra Maha Upayorat, and Somdetch P'ra Maha Uparat, and Nāk Ong Duang, his three younger brothers, with P'ya Chakri, and P'ya Kralahóme, and many others high Cambodian nobles were opposed to this measure, saying that such a proposal at the commencement of the new reign in Siam would appear disrespectful, and was contrary to the custom which had prevailed from the time that Cambodia became tributary to Siam, whenever the country was in a quiet and orderly state, the tribute having been paid annually. These nobles opposed the project of His Highness the Viceroy with many and various arguments. Not long after, His Highness the Viceroy sent for P'ya Chakri and P'ya Kralahome to come to his garden to an entertainment, and then he seized and put them to death without bringing any charge against them. On this account P'ra Maha Upayorat perceiving the anger of his elder brother the Viceroy of Cambodia, became frightened and fled from Ban T'ei P'et in the night to the town of Bodhesatt, designing to come and seek the protection of the King of Siam. His Highness the Viceroy learning this, sent several of the Cambodian officers to induce him to return. When Maha Upayorat refused to return, the Viceroy became fearful, and fled with his family to Saigon. His younger brothers Somdetch P'ra Maha Uparat and Ong Duang endeavoured to persuade him to remain, but he refused. When the Viceroy fled from his country, his brothers consulted together and led their wives and children from Ban T'ei P'et to the town Bodhesatt. Somdetch P'ra Maha Upayorat who was at Bodhesatt sent his two younger brothers to represent these matters to the King of Siam. His Majesty ordered Chau P'ya Yomarát who afterwards was Chau P'ya Abhay Bhoot'on to raise an army and quiet the disturbances in Cambodia, and should Nāk Ong Chan return, to examine into the differences between him and his younger brothers, and ascertain who was in fault. But if His Highness had fled and would not return, to place Cambodia under the rule of P'ra Maha Upayorat.

When Chau P'ya Yomarát arrived in Cambodia, Cochin Chinese officers came to him saying that Nāk Ong Chan the Viceroy of Cambodia had not rebelled against the Siamese Sovereign but had only quarreled with his younger brothers who had fled to the capital of Siam. Fearing that they would lay charges against him and bring an army, His Highness had fled and sought protection from Cochin China. They therefore desired that P'ya Yomarát the commander in chief of the army should conduct the three brothers to the town of Ban T'ei P'et, and the Cochin Chinese officers would

conduct His Highness Nāk Ong Chan to the same place, where they would arrange matters, and reconcile the brothers, and then deliver Cambodia to His Highness. Chau P'ya Yomarāt forwarded these facts to the King of Siam, who replied that he could not trust the Cochin Chinese who made this representation. His Majesty therefore sent an embassy with a royal letter to the King of Cochin China, to inquire into the truth of the statements. The Cochin Chinese King acknowledged the truth of the statements of his officers, and promised to send back Nāk Ong Chan the Viceroy to Ban T'ei P'et, and to insure the annual tribute being forwarded to Siam as formerly, and that the boundaries between Cochin China and Cambodia should remain as before, and also that there should be no further encroachments upon the Siamese boundaries. After the receipt of this letter from the King of Cochin China, the King of Siam sent an order to P'ya Yomarāt the commander of the forces, to make diligent inquiry and ascertain whether the nobles and people of Cambodia still respected the authority of Nāk Ong Chan;—If so, he was to permit him to return and assume the government of Cambodia as before. When P'ya Yomarāt made inquiries, he found that a large portion of the Cambodians still respected the authority of Nāk Ong Chan. He therefore consented that the Cochin Chinese officers should conduct Nāk Ong Chan back, and that he should assume the government of Cambodia. The three younger brothers when Nāk Ong Chan had returned, were unwilling to remain in Cambodia and decided to reside in Siam. Chau P'ya Yomarāt therefore conducted Somdetch P'ra Maha Upayorāt, P'ra Ong Im Maha Uparat, and Nāk Ong Duan, together with their wives, families, and retainers, to the capital of Siam. Nāk Ong Chan Somdetch P'ra Ut'ei Rajadhiraj the Viceroy of Cambodia, when he returned to the country, forsook the capital Ban T'ei P'et, and established himself at the town of P'anompen, which was nearer to Cochin China. He sent Cambodian nobles with annual tribute until the close of the reign of His Majesty P'ra Bad Somdetch P'ra Budh Lod Lah Nobhalay the King of Siam, the second reign of the present dynasty.

In the Siamese civil era 1186, or Christian era 1824, His Majesty P'ra Bad Somdetch P'ra Budh Lod Lah Nobhalay deceased, and his eldest son, known by the title of P'ra Bad Somdetch P'ra Nang klau Chau Yu Hua, ascended the throne of Siam. During his reign the Viceroy of Cambodia continued to forward the annual tribute, and Nāk Ong Sagnuan who became Somdetch Maha Upayorāt served in government business in the capital of Siam under his His Majesty for four years, when he died. There still remained Nāk Ong Im who had the title of Somdetch P'ra Maha Uparat, and Nāk Ong Duang. Afterwards P'ya Up'ei P'ubēt P'etcharot, the son of P'ya Ut'e P'ubet Saban, governor of the province of Matabong died. His Majesty appointed Nāk Ong Im to the vacant place, and appointed Nāk Ong Duang as governor of Mongk'onlaburee. Nāk Ong Im sent various charges against his young

brother Nāk Ong Duang, and His Majesty the King of Siam ordered his return to the capital. There still remained in Matabong, Nāk Ong Im, his mother, wife and children. His Highness Nāk Ong Chan Somdetch P'ra Ut'eī Rajadhiraj the Viceroy of Cambodia after governing the country for for 28 years, died in 1196 of the Siamese civil era, or 1834 of the Christian era. At that time the Cochin Chinese noble who returned and remained with Nāk Ong Chan, assumed the government and controlled the country according to his pleasure. The late Viceroy had no sons, leaving only daughters. The eldest daughter, Nāk Ong Ban, had relatives in the province of Matabong, with whom she kept up a correspondence. Ong T'ieng Khun the Cochin Chinese officer having detected the correspondence, arrested and put her to death and made Nāk Ong Mi her younger half-sister, ruler of Cambodia. This Cochin Chinese officer controlled the entire government business, and refused to send the customary tribute to Siam, and held the country tributary to Cochin China only. The Cambodian nobles and the people desired to have Nāk Ong Im and Nāk Ong Duang return and govern Cambodia. When they wished to send communications to inform the King of Siam, they feared the Cochin Chinese. They therefore sent persons to induce Nāk Ong Im the governor of Matabong to return to Cambodia himself. Nāk Ong Im being of a hasty disposition, and desirous of meeting with the Cambodian nobles, immediately departed for Cambodia. The Cochin Chinese being suspicious that Nāk Ong Im and the Cambodian nobles would plot together to the mischief of the Cochin Chinese, sent Nāk Ong Im, his family, and all the relatives of the family to Saigon. They afterwards sent Nāk Ong Im to the capital Huè, then they brought him back to Saigon, and finally took him to the town of Chodok where he died. Ong T'ieng Khun the Cochin Chinese officer in charge of Cambodia, governed according to the laws of Cochin China, and ordered all the Cambodians to change their customs and dress according to the Cochinese. The Cambodians being much oppressed, and not wishing to be under the rule of Cochin China, sent communications to the capital of Siam, requesting that Nāk Ong Duang might be sent to govern them. His Majesty the King of Siam ordered Chau P'ya Bodin to take command of the army, and conduct Nāk Ong Duang to Cambodia. He fought the Cochin Chinese at a place called Bodhisatt, and also at T'a-kap'ong-luang many times. The Cochin Chinese were defeated and retreated with their army. Chau P'ya Bodin reduced the country to order. Nāk Ong P'im, Nāk Ong Sangwan and Nāk Ong Im being dead, His Majesty the King of Siam made Nāk Ong Duang the younger brother of Nāk Ong Chan, the Viceroy of Cambodia with the title of Somdetch P'ra Harirak Maha Itsara T'ibodi. He established his capital at the town of P'ranom Pen. When the Siamese army had returned, the Cochin Chinese again marched to P'ranom Pen. His Highness Somdetch P'ra Harirak fled to Udong Wichai, and sent a letter to the King of Siam, who

ordered Chau P'ya Bodin to lead an army against the Cochin Chinese. The Cochin Chinese were unable to resist them, and retreated. Chau P'ya Bodin erected a wall round the town of Udong Wichei, which has been the capital of Cambodia until the present time. When Chau P'ya Bodin was about to return with his army, fearing the Cochin Chinese would return to make war with Cambodia, he ordered His Highness Somdetch P'ra Harirak to send a letter to the King of Cochin China, offering to pay him tribute once every three years, as was the custom during the time of his elder brother Nāk Ong Chan, in order that the Cochin Chinese might not bring an army against Cambodia. The Cochin Chinese consented, and delivered up the Cambodian princesses, nobles, and people that they had taken prisoners and carried away to Cochin China. From that time Cambodia and Cochin China had friendly intercourse and mutual trade. Afterwards the Cochin Chinese often came and oppressed the Cambodians, and carried them away into Cochin China. Somdetch P'ra Harirak sent his eldest son Rachabodi to the capital of Siam to serve his Majesty the King.

In the year 1213 of the Siamese civil era, or 1851 of the Christian era, His Majesty P'ra Bad Somdetch P'ra Nang Klau Chau Yu Hua deceased, and His present Majesty P'ra Bad Somdetch P'ra Chom Klan Chau Yu Hua ascended the throne.— During the reign of His present Majesty, Somdetch P'ra Harirak sent his sons Si-sawat and Wat'a to serve His Majesty the King of Siam. In the year 1218 of the Siamese civil era, or 1855 of the Christian era, at the request of His Highness, His Majesty appointed Rachabodi as Ong P'ra Narodom P'rom Borirak Maha Uparat, and Si-sawat as P'ra Harirak Danai Krei Keo Fa, and sent them to assist their father in the Government of Cambodia. Ong Wat'a still remained in Siam. In the year 1222 of the Siamese civil era, or Christian era 1860, His Highness Somdetch P'ra Harirak died. Ong Wat'a took leave of His Majesty the King of Siam to pay respect to the remains of his father the Viceroy of Cambodia. Ong Wat'a and Narodom quarrelled. Ong Wat'a was not able to resist his brother, and fled to the province of Nak'on Siamrap, and sent Sanongso to the town of Banp'anom to bring over his family. Sanongso went and raised disturbances, and collecting a force marched against the capital Udong Wichei. P'ra Narodom becoming fearful, conducted his family to the town of Mat-abong, awaiting the arrival of the Siamese forces. His Majesty directed P'ya Muk Montri to raise an army and go to arrange affairs in Cambodia, which are not yet settled.

## SOME OF THE NOTICEABLE EVENTS IN BANGKOK

IN THE YEAR 1861.

Jan. 9th, and 13th inclusive, was observed by the Protestant missionaries in Siam in harmony with Protestant Christians throughout the world, as a concert of fasting, prayer, and thanksgiving. There were several hopeful conversions.

Jan. 12th George A. Dunn Esqr, of the firm of G. A. Dunn & Co. died of chronic dysentery on board the Str. Chow Phya on her passage from Singapore to Bangkok, leaving a widow and two fatherless children to mourn his loss.

Jan. 21st. Mrs. E. S. Mc Donald gave birth to a daughter.

Jan. 22nd.—Several cases of Cholera among the natives in the city, but not at all epidemic; a few of them fatal.

Jan. 24th. An Am. Sailor died in port of the Cholera.

Jan. 27th. A European Sailor died of Cholera.

Jan. 31st. The U. S. Sloop of War John Adams, Capt. Barrien arrived off the Bar.

Feb. 15th. A letter of the King of Siam to the President of the U. S. Am. was taken to the John Adams with due honors.

Feb. 17th. The Senior king of Siam went in much state to worship Buddh at Prabat.

Feb. 18th. The U. S. sloop John Adams sailed.

Feb. 27th. A great fire near Wat Hong in Klawng Bangloorang.

March 1st. Another white elephant, an object of many fond hopes, died whilst she was on her way to high honors in the king's palace.

March 12th. The king of Siam on this Siamese New year's day, issued a Calendar in the Siamese language, the design of which was to correct many errors into which his people have fallen in the observance of their sacred days, at the new, and full, and quarters of the moon; and to state the times of the Eclipses, and Transit of Mercury. He also corrected a statement made in the Bangkok Calendar for 1861 concerning the anniversary day of Buddha's birth, inspiration, and death. His Majesty says that the compiler of the B. Calendar made a mistake by advertising the day to fall that year on the 24th April. He says that the proper time to be observed as that anniversary, falls always at the full moon in May; and that if there happen to be two full moons in that month, the last one is to be taken. This is doubtless correct; and the editor of the Calendar has written nothing contrary to it. He only stated a fact of universal notoriety in Siam, i. e. that the Siamese, in their loose way of reckoning, do always observe the full moon of their 8th month as that anniversary, without any regard to the question whether that day falls in May or April.

March. 23rd. The Siamese Embassy to the Court of France embarked on board H. I. M. Str. Gironde.

March 29th. William Adamson Esq. and family embarked for Singapore with the view to reside there.

April 13th. A public meeting of Europeans and Americans at the British Consulate to prepare a memorial to the king requesting a royal donation of a plot of ground for the erection of a Protestant Chapel.

The first annual meeting of the Bangkok Siamese and Chinese missionary Society.

May 1st. Prince Katiwong, one of the suit of the 2nd. king of the Laos from Cheangmai, as-

sisted in writing the first christian tract in the Laos character entitled "Law and gospel", with the view of having it printed on the lithographic press.

The discovery was then made, that the Laos of that dialect, (who are very numerous) employ very nearly the same words that the Siamese do; and hence that Siamese tracts can very readily be written in the Laos character, and that when written they are perfectly intelligible to Laos readers. The reason why the language seems so strange to the ears of Siamese missionaries, is mainly because the Laos pay no attention to the system of intonations regarded so essential by the Siamese, and which is very difficult of acquisition.

May 9th. Began to distribute the tract on the Law and gospel to the Laos, who were amazed to see, that the missionaries had multiplied it so rapidly in their own tongue.

May 9th. The king informed the European community that he had complied with their request for the grant of a plot of ground for a Protestant Chapel.

May 13th. William S. Kimball an American, died of pulmonary consumption.

May 14th. Captain Berry another American was drowned in the Menam.

May 16th. An American named Redman, made a desperate attempt to assassinate J. H. Chandler Esq. U. S. Consul. & Mr. T. Miller

May 17th. Edward Howes of the same clan of Redman, was drowned in the Menam in a fit of intoxication.

June 2nd. An American sailor of the "Sea Nymph" died of Cholera having been sick only 6 hours.

June 5th. Rev. Daniel Mc Gilvary, and Rev. S. G. Mc Farland of the Presbr. mission, with their families, left Bangkok to commence a new mission station at Petchabooree.

June 15th. The first copy right of a Siamese native work purchased and printed, was issued. It was a Journal of the tour of the Siamese embassy to England, by Prince Mom Rajoday, K. Tai, which is very popular.

June — Krom Looang Sanp'asin-prec-ch'a, His Majesty's half brother, and chief physician, deceased.

July 4th. The new comet first seen at Bangkok.

July 9th. A cheering discovery at Petchaburee\* July 10th. Prince Kroma-Loong Mahitsawarin deceased.

July 17th. His Excellency Chow P'aya Sri Soorivong, the prime Minister of Siam, took his departure for a pleasure trip to Singapore. An escort of seven Steamers, all native built, accompanied his Excellency down the river. The "Volant" especially must do his Excellency great credit. This event will constitute a new era for Siam, as never before had any one so high in the Siamese government left the country to travel in foreign lands.

Aug. 18th. Mrs. Lucina B. Telford gave birth to her second son.

Aug. 17th. H. R. Highness Krom Hluang Wongsa T'irat-sanit, had an attack of paralysis of the left side.

Aug. 25th. Paul Lessler Esqr. of the firm of A Markwald & Co. returned from a trip to Singapore, bringing with him his young bride.



Aug. 19th. The Prime Minister returned from his tour to Singapore Malacca and Pinang.

Aug. 20th. His Majesty the king very graciously complied with the memorial of the foreign community, requesting him to construct a good road after European style, in the rear of their Mercantile and Consulate establishments, on the east side of the river.

Sept. 9th. The Queen consort of His Majesty Pradatsomdet Pra Chawm Clow the first King of Siam, departed this life. Her disease was pulmonary consumption. The flags at all the Consulates and on the shipping in Port were lowered to half mast.

Oct. 3rd. The Presbytery of Siam held its fifth session at the lower mission.

Oct. 9th. H. I. Majesty's Steamer Marne arrived.

Oct. 18th. His Majesty the senior king celebrated the 57th anniversary of his birth by giving a dinner to Europeans and Americans at his palace.

Oct. 29th. Prince Chow Fah Isarapong deceased.

Nov. 5th. The highest spring tides that had been in Bangkok for more than 20 years.

Nov. 6th. Chawm-Manda Paa wife of His Majesty the 1st. king, second in rank and honor to the late Queen consort, departed this life in child bed, with uterine hemorrhage.

The Journal of the Siamese Embassy to London, converted into a poem in the Siamese language by Mom Rajoday K. Tai, was issued from the press of the A. M. A. and is very interesting.

Nov. 12th. The transit of Mercury was seen at Bangkok in a brief interval between flying clouds. His Majesty the king took great pleasure in viewing it from his mountain-palace at P'etchabooree.

Nov. 16th. Mrs. S. B. Mc Gilvary gave birth to a daughter.

Nov. 21st. The Prussian Frigate "Thetis" arrived.

Dec. 10th. H. I. M's. Steamer "European" arrived, bringing home the Siamese Embassy from France.

Dec. 8th. A vaccine scab from Brooklyn N. Y. overland, being simply encased in a little bees-wax, and 5 1/2 months old, gave the vaccine to 7 persons out of 12 vaccinated.

Dec. 11th. The Prussian Frigate Elbe arrived.

Dec. 13th. The Prussian Corvet Arcona arrived bringing Count Eulenburg as His Prussian Majesty's ambassador to the court of Siam.

Dec. 14th. Thomas George Knox, Interpreter to the British Consulate, returned from a tour to Europe.

Dec. 15th. His I. Majesty's letter to the senior king was received with the customary salute of 21 guns.

Dec. 14th. Her B. Majesty's letter to the king, was received with the same honors.

Dec. 27th. Count Eulenburg had his first public audience with the king.

Dec. 21st. His Majesty the senior king, placed \$1,000 from his own private purse, in the hand of Rev. S. Macdon, to be transmitted as a royal donation to Mrs. Ann H. Caswell in the U. S. residue of the late Rev. J. Caswell deceased, of the American Missionary Association in Bangkok. The above munificent and truly royal donation, was accompanied by a letter to Mrs. Caswell, asking her to accept this donation as an expression of His Majesty's indebtedness to Mr. Caswell for his knowledge of the English language, and also as an expression of sympathy for his widow and children. This is one of the most pleasing incidents in His Majesty's reign, and reflects the greatest honor on his person, and will receive the approbation of all men, showing that while His Majesty is so well qualified to govern a kingdom, he has a heart full of gratitude to a benefactor, manifesting it in this unostentatious and timely gift to his family, long after his death.

As a still further illustration of his esteem for his former teacher, and of his generous gratitude, he has ordered a monument, with a suitable inscription to be placed over his grave in the Bangkok cemetery.

Dec. 30th. E. Alexander, assistant in the House of A Markwald & Co. was drowned in the Menam. He was sick nigh unto death with the dysentery; and being delirious, stole out of his room without an attendant, before break of day, with the view probably to bathe at the landing, and fell from the steps into the river.

Dec. 31st. Sir. Robert H. Schomburgk, H. B. M. Consul gave an entertainment at the British Consulate, to a party of Europeans and Americans, at which there were about 80 guests, it being the largest convivial party of the kind that has ever been known here. The occasion was graced by the presence of His Prussian Majesty's Envoy Plenipotentiary, Count Eulenburg; Commodore Sunderland, of H. P. M's Corvet Arcona; Captain Fachmann of H. P. M's Frigate Thetis; C. Pieschel Secretary of Legation; Count Eulenburg jun., Von Bunsen; and Von Brandt. Attaches; Dr. Lucius, Physician to the Embassy; Dr. Von Martens, and Dr. Von Richthofen, Naturalist's; Dr. Maron, Agriculturist; Mr. Gustave Speiss, Saxon Commissioner; Mr. Berg Ariet;—Dr. Stephan and Dr. Fohewich Physicians to the squadron;—and several other officers of the Prussian Navy.

A band of 18 musicians were in attendance, and performed admirably. The eastern world, probably, Siam certainly, has never heard the like of its power to charm.

\* The missionaries there, were on that day, first visited by a very interesting Siamese man, who had received religious books and portions of the Scriptures years before, and had studied them till he could repeat the most of them verbatim. Though he had never had any personal instruction from any one, scarcely having seen a missionary, having had no teacher but the word and Spirit of God, he had renounced Buddhism, and his conduct proves him to be a sincere christian. His knowledge and understanding of the spiritual import of the Scriptures are extraordinary. Who can tell that there may not be many such cases in Siam, who have been enlightened by the books distributed by missionaries, whose effects like leaven, are powerful, though often imperceptible to human observation.

## SHIPPING LIST FOR 1861.

|                     | ARRIVALS | 84.  | Tonnage | 40,551.  | DEPARTURES, | 79.  | Tonnage | 36,422. |
|---------------------|----------|------|---------|----------|-------------|------|---------|---------|
| British             | do       | 55.  | do      | 36,736.  | do          | 44.  | do      | 28,372. |
| American            | do       | 18.  | do      | 5,802.   | do          | 17.  | do      | 5,501.  |
| Hamburg             | do       | 17.  | do      | 9,739.   | do          | 15.  | do      | 7,612.  |
| Dutch               | do       | 16.  | do      | 6,668.   | do          | 12.  | do      | 4,539.  |
| Danish              | do       | 6.   | do      | 2,170.   | do          | 6.   | do      | 2,313.  |
| Hanover             | do       | 6.   | do      | 1,746.   | do          | 6.   | do      | 1,616.  |
| Bremen              | do       | 4.   | do      | 1,728.   | do          | 8.   | do      | 3,247.  |
| French              | do       | 2.   | do      | 1,150.   | do          | 2.   | do      | 1,150.  |
| Peruvian            | do       | 2.   | do      | 1,376.   | do          | 2.   | do      | 1,468.  |
| Prussian            | do       | 2.   | do      | 898.     | do          | 2.   | do      | 898.    |
| Chilian             | do       | 1.   | do      | 300.     |             |      |         |         |
| New Grenada         | do       | 1.   | do      | 250.     | do          | 1.   | do      | 250.    |
| Belgian             | do       | 1.   | do      | 680.     | do          | 1.   | do      | 680.    |
| Italian             | do       | 1.   | do      | 182.     | do          |      |         |         |
| Sweden              | do       | 1.   | do      | 250.     | do          | 1.   | do      | 250.    |
| Norwegian           | do       | 1.   | do      | 670.     | do          | 1.   | do      | 670.    |
| Portuguese          | do       | 1.   | do      | 233.     | do          | 1.   | do      | 233.    |
| Spanish             | do       | 67.  | do      | 25,052.  | do          | 76.  |         | 30,827. |
| Siamese             | do       |      |         |          |             |      |         |         |
| FOREIGN STEAMERS    |          |      |         |          |             |      |         |         |
| English             | do       | 7.   | do      | 2,202.   | do          | 6.   |         | 2,080   |
| French              | do       | 2.   | do      | 3,350.   | do          | 2    | do      | 3,350   |
| Total Foreign       | do       | 228. | do      | 116,037. | - -         | 206. |         | 97,258  |
|                     |          |      |         |          |             |      | do      |         |
| SIAMESE STEAMERS    | 19.      | do   | 7,27.6  | do       | 16.         |      | do      | 6,342.  |
| Total Siam. vessels | 86.      | do   | 32,331. | - -      | 92.         |      |         | 36,669. |
| MEN OF WAR          |          |      |         |          |             |      |         |         |
| Prussian            | do       | 3.   | do      | 1148.    |             |      |         |         |
| French              | do       | 2.   | do      | 1,470.   |             |      |         |         |
| American            | do       | 1.   | do      | 700.     |             |      |         |         |
| Dutch               | do       | 1.   | do      | 800.     |             |      |         |         |
|                     |          | 7.   | do      | 2,818.   |             |      |         |         |

Total Arrivals 311, Tonnage 151,186. Total departures 296, Tonnage 133,927.

## A RETROSPECT OF SHIPPING 19 YEARS.

| ARRIVALS                |      | AND     |     | DEPARTURES      |      |    |
|-------------------------|------|---------|-----|-----------------|------|----|
|                         |      | Tonnage |     |                 |      |    |
| Foreign Vessels in 1860 | 191  | 74,718  | - - | Foreign Vessels | 179  |    |
| Siamese do do           | 95   | 34,237  | - - | Siamese do      | 91   |    |
| Foreign do 1859         | 208  | 89,156  | - - | Foreign do      | 130  |    |
| Siamese do do           | 64   | 23,681  | - - | Siamese do      | 70   |    |
| Foreign do 1858         | 229  | - - -   | - - | Foreign do      | 195  |    |
| Siamese do do           | 40   | - - -   | - - | Siamese do      | 32   |    |
| Foreign Vessels         | 1848 | 9       |     | Siamese Vessels | 1844 | 9  |
| Siamese do do           |      | 23      |     | Foreign do      | 1843 | 14 |
| Foreign do 1846         |      | 9       |     | Siamese do do   |      | 4  |
| Siamese do do           |      | 15      |     | Foreign do      | 1842 | 12 |
| Foreign do 1845         |      | 9       |     | Siamese do do   |      | 1  |
| Siamese do do           |      | 9       |     | Foreign do      | 1841 | 12 |
| Foreign do 1844         |      | 9       |     | Siamese do do   |      | 4  |

**J. C. CAMPBELL**  
INSPECTOR OF IMPORTS & EXPORTS,

ANTONIO INTERPRETER.

1st. ASSISTANT.

do  
do

PRINCIPAL EXPORTS FROM BANGKOK SIAM.

|                                | Rice           | Sipan Wood    | Sugar         | Pepper      | Hides       | Horns      | Cardamums  | Bastid ditto | Teel Seed   | Tin        | Stick-lac   | Silk       | Paddy  |
|--------------------------------|----------------|---------------|---------------|-------------|-------------|------------|------------|--------------|-------------|------------|-------------|------------|--------|
| In 1867 in Foreign vessels     | Piculs 1047650 | Piculs 100412 | Piculs 149783 | Piculs 9840 | Piculs 5176 | Piculs 916 | Piculs 561 | Piculs 376   | Piculs 6618 | Piculs 674 | Piculs 1084 | Piculs 678 | Piculs |
| " 1868 " do and Native vessels | 1175385        | 199838        | 153596        | 20892       | 8432        | 2332       | 559        | 1697         | 19007       | 774        | 3900        | 704        | 19518  |
| " 1869 " do " do               | 839751         | 208597        | 208596        | 13504       | 26586       | 4983       | 1007       | 1586         | 6249        | 739        | 2984        | 1079       | 6230   |
| " 1760 " do " do               | 1602215        | 67846         | 143504        | 14850       | 6724        | 2139       | 298        |              | 5623        | 74         | 2177        | 400        | 4778   |
| " 1861 " do " do               | 2155040        | 71318         | 118103        | 24208       | 5878        | 1387       | 321        |              | 3769        |            | 4251        |            | 16246  |

There was also exported in 1867, large quantities of Teak, —Redwood, Salt and Salt fish—Also in considerable quantities, Ivory, Gambouge, Mangrove-bark, Peas, & Beans.

## EUROPEAN RESIDENTS.

## AT BANGKOK.

- ALABASTER, HENRY, 1st Asst. Brit. Consul.  
 ANCHANT, ROBERT.  
 BARROS, S. D., Clerk.  
 BUCHANAN, HERBERT, Clerk.  
 BUSH, JOHN, & family Harbor Master.  
 CAMPBELL, JAMES, Surgeon to Brit. Con.  
 CARTER, J. Boarding house keeper.  
 CASTELNAU COUNT, French Consul, absent  
 CASTELNAU, VISCOUNT, 1st assist. to above  
 CASTRO JOSE CORREA DA.  
 CASWELL, J. S. G., Clerk.  
 CLARKE, C. J., Student interp. Brit. Consul.  
 CLEMENCIAU REV. Provicar, Interpreter  
 to French Consul.  
 COOK, JAMES, Pilot.  
 CORDEIRO, ZEFERINO.  
 CORDEIRO, M. C., Clerk.  
 CORDEIRO, MIGUEL ANTONIO.  
 CORDES, J. F., Clerk.  
 COSTA, JOSE MARIA F. DA.  
 COSTA, POLICARPO ANTONIO DA.  
 DANIEL, REV., Rom. Cath. Missionary.  
 DEBAU.—  
 DANIS, A. Master Mariner.  
 DOW, J. 1st Constable British Consulate.  
 DUCAT, REV. Rom. Catholic Missionary.  
 DUPOND, REV. ditto  
 EAMES, WILLIAM, Master Mariner.  
 FINCK, GEORGE A., Clerk.  
 FONCECA, NAZARIO, ANTONIO, DA.  
 FRANC M., 2nd assistant French Consul.  
 GEORGEL, REV., Rom. Cath. Missionary.  
 GIBRATA REV. ditto ditto  
 GIMBERTEAU, Master Mariner.  
 GREIG, ALEXANDER, Master Mariner.  
 GRENON, JOHN WILLIAM, Clerk.  
 GUNN, JOHN, Merchant.  
 HAGGERTY, JOHN, Master Mariner.  
 HAMILTON J. Clerk.  
 HANSON, H. H., Clerk.  
 HENDRICKS, R. Clerk.  
 HICKS, F. G. Pilot.  
 HODSON A. Master Mariner.  
 HUNTER, ROBERT, Clerk.  
 ISTRIA, D', Chancellor French Consulate.  
 JACKSON, JOHN, Pilot.  
 JESUS, FILOMENO MANUEL DE, Clerk.  
 JESUS, P. DE, Clerk.  
 JULIEN, ST. CYRUS, Merchant.
- KNOX, THOMAS GEORGE, Interpreter to  
 British Consulate.  
 LARNAUDIE, REV. Rom Cath. Missionary.  
 LAWSON, LAWRENCE, Master Mariner.  
 LAMACHE, E.  
 LEON NEO LUCE.  
 LEONARD, WILLIAM, Mail agent.  
 LESSLER, PAUL, & family, Merchant.  
 LUCCIN, LOUIS, Boarding house keeper.  
 MACLEAN, DANIEL, Ship-builder.  
 MALHERBE, L., Merchant. Absent.  
 MARKWALD ADOLPHE, Merchant.  
 MARTIN, REV. JOHN, Rom. Cath. Miss.  
 MASON D. K. Merchant.  
 MORELLE.—  
 MOOR, A. F., Portuguese Consul.  
 MOOR, E. M., Clerk.  
 MORRIS, J.  
 NAIL, GEORGE, VISCENT, Master Mar.  
 NUBRONNER, CONTRAD, Clerk.  
 NEWMAN, W. H. Student Interpreter.  
 British Consulate.  
 ODMAN, A. M. Merchant.  
 ORTON G. Master Mariner.  
 PALLEGOIX, PASTOR, REV. R. C. Bish.  
 PEDRO, A. Master Mariner.  
 PETERSON, F. Master Mariner  
 PICKESPACK, PAUL, Merchant—Neth.  
 Vice Consul.  
 PROWSE, E. B. Master Mariner.  
 QUINTON, JOSEPH S. Master Mariner.  
 RAIMUNDA, ANTONIO, Clerk.  
 ROSARIO, PASCOAL ANTONIO DA, Mast. M.  
 RANFANG REV. Roman Catholic Miss.  
 PONARD REV. SEVERIN, Rom. Cath. Miss.  
 SANTOS F. F. DOS, Master Mariner.  
 SCHILL, PAUL, Merchant.  
 SCHOMBUGK, SIR ROBERT H. Brit. Consul  
 SHANNON, WILLIAM, & family, Mast. M.  
 SCHRODER, WILLIAM, Clerk.  
 SILVA, GABRIEL, DA, Master Mariner.  
 SILVA, G. J. DA Master Mariner.  
 SILVA, JOAQUIM, MAXIMIANO, DE, Chancel-  
 lor to Portuguese Consulate  
 SILVA, PETER, ANDREW.  
 SCOTT, ROBERT, S. Merchant  
 SOUZA, JOAO BAPTIST DE,  
 SURIN, C. C. Clerk.

EUROPEAN RESIDENTS. AT BANGKOK—*Continued.*

THOMPSON, Master Mariner.  
 WETTERN, G. Clerk.  
 SMITH, REV. S. J. & family Missionary.  
 THIES, THEODOR, and family Merchant  
 Hanseatic Consul. Neth. Act. V. Con.  
 THOMSEN, C. Clerk.

WHITE, JAMES, Boarding house keeper.  
 WILLIAM, —Master Mariner.  
 XAVIER, JOAQUIM, MARIA. Clerk.  
 XAVIER, L. M. Clerk.

## AMERICAN RESIDENTS.

ALLEN, CHARLES G. Stem Tug Proprietor.  
 BRADLEY, REV. D. B.,—M. D. & family  
 Missionary.  
 BURR, W. A. Master Mariner.  
 CAMPBELL, J. C. Inspt. of Import & Exports  
 CHANDLER, J. H. & family U. S. Consul.  
 CHANDLER, E. V.—U. S. Marshal.  
 CHRISTIAN, WILLIAM T. Master Mariner.  
 CUMMINGS, J. C. Master Mariner.  
 DAVIES, JAMES, Master Mariner.  
 DYER, ATKINS, Pilot.  
 GOODALE, S. P. Merchant.  
 GOVER, F. J. Master Mariner.  
 GURVEY, MICHAEL, & family, Partner of  
 Am. Steam Rice Mill  
 HALL, GEORGE, B. Engineer.  
 HAZARD, PETER, Master Mariner.  
 HIGGINS, WM JOHN, Master Mariner.  
 HOUSE, REV. SAMUEL R., M. D. & family  
 Missionary.  
 HOWARD, GEORGE, Hotel keeper.  
 JACKSON, OSCAR, Engineer.  
 JENKINS, JAMES, L. Engineer.

MAJOR, J. W. Partner of Virgin & Co.  
 MATTOON REV. S. & family Missionary.  
 MC. CORMICK, JAMES.  
 MC DONALD, REV. N. A. & family, Miss.  
 MC FARLAND, REV. S. G. & family, Miss.  
 MC GILVARY, REV. DANIEL, & family, Miss.  
 MILLER, THOMAS, Agent of Steam Tug. Co.  
 MURRAY, WILLIAM Master Mariner.  
 MOORE, ALONZO, Employee Am. Rice Mill.  
 MOORE, JAMES A. do do do do  
 ODELL, JOHN F do do do do  
 PARKER, J. S. Merchant.  
 RADCLIFF, WILLIAM, Pilot  
 REYNOLDS, HENRY, Master Mariner.  
 RYAN, J. O. Master Mariner.  
 SMITH, JOHN, Pilot.  
 TELFORD, REV. ROBERT, & family. Miss.  
 THOMAS, CHALES H. Mariner Hotel.  
 VIRGIN, GEORGE W. Merchant.  
 WALLACE, WILLIAM.  
 WEST, WILLIAM Master Mariner.  
 WILLIAM, HUGH, Master Mariner.  
 WILSON, REV. JONATHAN, Missionary.  
 WRIGHT, SAMUEL, Employee Am. Rice Mill.

## PRINCIPAL HOLIDAYS.

*OBSERVED BY THE SIAMESE AND OTHERS.*

**Season for visting Pra:bat.**—Is the first half of the Siamese third month corresponding with February 1st to the 15th.

**Chinese New year.**—Krōōt Cheen—Falls on the 29th 30th and 31st of Jan.

**Siamese New year.**—Krōōt T'ei—Falls on March 30th and 31st. & April 1st.

**First Semiannual renewal of the Oath of allegiance.**—Will be taken on the 2nd of April.

**Songkran**—Will occur about April 12th.

**Anniversary of the Birth, Inspiration, and Death of Buddh,** Falls on the 12th 13th and 14th of May.

**Beginning of seed time**—Raackna—Will occur on the 4th of May.

**Buddhist Lent,**—Commences on the 11th July. And continues until 8th October. The beginning and ending of this season are observed as Festival occasions. The first is called K'ōw-wasá—the second Awk-wasá.

**2nd Semiannual Oath of Allegiance**—Will be taken on 21st September.

**Sat**—Falls on September 22nd 23rd and 24th.

**1st Royal Fire works,**—On the River will occur Oct. 5th 6th and 9th

**2nd Royal Fire works.**—On the River will occur Nov. 5th 6th & 7th

THE

# Printing Office.

OF THE

## AMERICAN MISSIONARY ASSOCIATION.

*Is situated just behind the Upper Port, near the Palace of*

**HIS R. H. PRINCE KROM LOOANG WONGSA TERAT.**

*at the mouth of the large canal Klawng Bang Looang.*



All orders for Book, Job, and Ornamental Printing in the European, and Siamese Languages, will there be promptly and neatly executed, and at moderate prices.

A Book-Bindery is connected with the Office, where Job work in this department will be quickly and carefully performed.

There are kept on hand a supply of Boat Notes, Manifests, Blank Books, Copy Books, Letter Books Elementary Books, in English and Siamese, Etc.

The subscriber respectfully solicits the the public patronage, designing by it to support his Family, the Mission, and the Office in printing the Bible, Christian tracts, books on the Arts and Sciences, and a Siamo-English, Anglo-Siamese, and Siamese Dictionary, (being 3 distinct works) independent of pecuniary aid from abroad, of which he now has none, and is hence-forward to be entirely dependent under God, for pecuniary support, on what he can realize from the income of the Office.

The Natives give him but little Job-work to do; and hence his main dependence must be upon his European and American friends. He feels confident that they will stand by him with liberal hearts, and strong hands, to aid him in his great work. The entire avails of the Office are appropriated to the objects above named; no part of them being kept in store for the future.

*January 1st 1862.*

D. B. BRADLEY.

# A PLAN FOR ROMANIZING SIAMESE WORDS.

## TABLE OF ALL THE SIAMESE VOWEL AND DIPHTHONG SOUNDS.

Kaw ka, ki kee, kŭ kŭ; kōō koō, kē kaa, kei kei, ko kow,  
kām kã:

Kōn kån kan, kın keen, kŭn kŭn, kōōn koon, kēn kuan kon kawn,  
kooån keeån, kŭån kōn.

Kōi kei kai kao, kiw keew kŭi kŭi, kōōi kooi, kēo kuo kawi, kooi  
keeo kŭi, keeå keeå; kŭå kŭå; kō kō; kooå kōōå; kē: kaa; kō: kaw;  
kōōm kām, kaw kŭ.

### *Explanation of the diacritical marks &c.*

#### VOWELS AND DIPHTHONGS.

a—is sounded as *a* in *father*.

aa " " " *a* in *care*.

ã " " " *a* final in *America*.

aw " " " *aw* in *saw*.

ee " " " *ee* in *meet*.

ei " " " *ei* in *height*.

ë " " " *e* in *met*.

è " " " *e* in *prey*.

ï " " " *i* in *hit*.

o " " " *o* in *hope*.

ō " " " same, but shorter.

ö " " " *oo* in *foot*,

oo " " " *oo* in *stool*.

ō—is sounded as *o* in *world*.

ow " " " *ow* in *cow*.

ŭ sounded much as *u* in the French word  
*dupe*, but shorter,—a short grunt-like  
sound, with the lips slightly open, and  
the tongue held midway between the  
floor and roof of the mouth.

ŭ as in the French word *voiture*; essen-  
tially like the preceding, but a longer  
sound, with lips and tongue in the  
same position.

#### CONSONANTS.

ng—as the initial of a syllable, is sounded much as the final syllable of the word  
*singing* is often pronounced; that is with a slight nasal and guttural twang of the  
letter *g* preceeding it: as if spelt *sing-ning*. The remaining consonants are pronounced  
as is common in English, taking particular care *not* to aspirate any which have no  
a spirate mark like this ['] attached.

#### DIACRITICAL MARKS,

( ' ) This apostrophe, denotes that the letter preceeding it is to be aspirated,  
having a slight breathing of *h*,—*eg*, k'ōn (man) pronounced as if it were spelled *khon*.

( : ) This denotes that the syllable preceeding it is sounded very short and abrupt.

( ^ ) This over a vowel denotes, that the syllable has a *rising* tone, such as is given  
to the word *well* in the question 'Are you well?'

( . ) This dot under a vowel denotes, that the syllable has a *circumflex* tone such  
as would be given to the word *you* in the sentence 'You are the scoundrel yourself.'

( ~ ) This mark over a vowel denotes, that the syllable has a *period* tone.

( ~ ) This over a vowel denotes, that the syllable must hav a tone much like that  
given to the word *town*, in the following sentence, 'When he comes to *town*, I shall  
see him'. The tone given to *town*, is as if waiting for something else to complete  
the idea: hence it may be denominated an *expectant* tone.

# STATEMENT OF SALES

FOR THE YEAR 1954

The following table shows the sales of the Company for the year 1954, broken down by product and by geographical area. The sales are shown in thousands of dollars.

Product Sales by Geographical Area

Product Sales by Geographical Area

| Product   | North America | Europe | Asia | Africa | Latin America |
|-----------|---------------|--------|------|--------|---------------|
| Product A | 100           | 200    | 150  | 50     | 100           |
| Product B | 200           | 150    | 100  | 20     | 50            |
| Product C | 150           | 100    | 50   | 10     | 20            |
| Product D | 50            | 20     | 10   | 5      | 10            |
| Product E | 10            | 5      | 2    | 1      | 2             |
| Product F | 5             | 2      | 1    | 0      | 1             |
| Product G | 2             | 1      | 0    | 0      | 0             |
| Product H | 1             | 0      | 0    | 0      | 0             |
| Product I | 0             | 0      | 0    | 0      | 0             |
| Product J | 0             | 0      | 0    | 0      | 0             |

Total Sales

The total sales for the year 1954 were \$1,000,000. The sales were distributed as follows: North America, \$400,000; Europe, \$500,000; Asia, \$300,000; Africa, \$100,000; Latin America, \$200,000.

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