

THE
UNIVERSITY

OF MINNESOTA

ALMANAC *FOR* 1873.

COMPUTED SPECIALLY

FOR THE

STATE OF MINNESOTA.

FOR THE UNIVERSITY:

Tribune Printing Company.

MINNEAPOLIS.

ASTRONOMICAL CALCULATIONS

For this Almanac for the year of Our Lord 1873, and until July 4th, the 97th year of American Independence.
This is the only Almanac strictly adapted to Minnesota.

CHRONOLOGICAL CYCLES, &c.

Dominical Letter.....	E	Year of the World (Usher).....	5877
Golden Number.....	12	Year of the World (Jews).....	5633
Epact (Moon's age, January 1st)....	1	Year of the World (Septuagint) ...	7381
Solar Cycle.....	6	Year A. U. C. (Building of Rome)...	2626
Roman Indiction.....	1	Year of the Olympiads.....	2649
Julian Period.....	6586	Year of the Era of Nabonassar.....	2620

ECLIPSES FOR 1873.

- There will be four Eclipses this year, as follows:
- I. A Total Eclipse of the Moon May 12, in the morning, which will be partial and visible from Boston west to Chicago, and west of Chicago the Eclipse will be total. The Moon sets with the Eclipse upon it, except at San Francisco. This Eclipse will begin at Saint Paul at 3:18 morning, and be total at 4:23.
 - II. A Partial Eclipse of the Sun May 26; the Sun rising partly eclipsed in Maine, New Hampshire, and part of Vermont and Eastern Massachusetts.
 - III. A Total Eclipse of the Moon November 4, which will be visible as a *partial* Eclipse in California and Oregon.
 - IV. A Partial Eclipse of the Sun November 19; visible in the Southern Ocean.

CUSTOMARY NOTES.

THE FOUR SEASONS.

	D.	H.	M.	D.	H.	M.
Winter begins, 1873, December 21,	5	34	mor.	and lasts, ...89	0	59
Spring " 1873, March 20,	6	33	mor.	"	92	20 33
Summer " 1873, June 21,	3	6	mor.	"	93	14 10
Autumn " 1873, September 22,	5	16	eve.	"	89	17 57
Winter " 1873, December 21,	11	18	mor.	Trop. year 365	5	38

MORNING STARS.

Venus after May 5.
Mars until January 17.
Jupiter after September 4.
Saturn from January 13 to April 22.

EVENING STARS.

Venus until May 5.
Mars after January 17.
Jupiter until September 4.
Saturn until January 13, and after April 22.

PLANETS BRIGHTEST.

Mercury, January 8, May 6, and September 2, rising then before the Sun; also, March 15, July 13, and November 7, setting then after the Sun. Venus, March 29, and June 10. Mars, April 27. Jupiter, February 14. Saturn, July 21.

NOTE.—The calculations of this Almanac have been made exclusively for it. The Sun's rising and setting are adapted to *mean time*, as are also the other tables.

The Sun's declination is made to the nearest second of arc for the longitude of Washington at apparent noon. To ascertain the declination at St. Paul to within (say) one-half minute of arc, apply to the declination of the given date one twenty-second part of the difference between the declination of that date and the day after. If the declination is increasing, add this correction; if decreasing, subtract it.

The equation of time is also given for apparent noon on the meridian of Washington.

BUSINESS CALENDAR.

		1873.							1873.						
		Sunday.	Monday.	Tuesday.	Wednes.	Thursday.	Friday.	Saturday.	Sunday.	Monday.	Tuesday.	Wednes.	Thursday.	Friday.	Saturday.
Apr.	6	7	8	9	10	11	12	13	10	11	12	13	14	15	16
	13	14	15	16	17	18	19	20	17	18	19	20	21	22	23
Mar.	23	24	25	26	27	28	29	30	24	25	26	27	28	29	30
	30	31	..	..	..	..	..	..	31	..	..	..	..	..	..
Feb.	16	17	18	19	20	21	22	23	13	14	15	16	17	18	19
	23	24	25	26	27	28	29	30	20	21	22	23	24	25	26
Jan.	19	20	21	22	23	24	25	26	16	17	18	19	20	21	22
	26	27	28	29	30	31	..	..	23	24	25	26	27	28	29
1873.	5	6	7	8	9	10	11	12	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	12	13	14	15	16	17	18
1873.	19	20	21	22	23	24	25	26	19	20	21	22	23	24	25
	26	27	28	29	30	31	..	..	26	27	28	29	30	31	..
1873.	4	5	6	7	8	9	10	11	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	11	12	13	14	15	16	17
1873.	18	19	20	21	22	23	24	25	18	19	20	21	22	23	24
	25	26	27	28	29	30	31	..	25	26	27	28	29	30	31
1873.	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
	8	9	10	11	12	13	14	15	8	9	10	11	12	13	14
1873.	15	16	17	18	19	20	21	22	15	16	17	18	19	20	21
	22	23	24	25	26	27	28	29	22	23	24	25	26	27	28
1873.	29	30	..	..	..	..	..	..	29	30	..	..	..	..	..

1873.	6	7	8	9	10	11	12	13	6	7	8	9	10	11	12
	13	14	15	16	17	18	19	20	13	14	15	16	17	18	19
1873.	20	21	22	23	24	25	26	27	20	21	22	23	24	25	26
	27	28	29	30	31	..	..	..	27	28	29	30	31	..	..
1873.	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9
	10	11	12	13	14	15	16	17	10	11	12	13	14	15	16
1873.	17	18	19	20	21	22	23	24	17	18	19	20	21	22	23
	24	25	26	27	28	29	30	31	24	25	26	27	28	29	30
1873.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	31	..	..	..	..	..	..	..	31	..	..	..	..	..	..
1873.	7	8	9	10	11	12	13	14	7	8	9	10	11	12	13
	14	15	16	17	18	19	20	21	14	15	16	17	18	19	20
1873.	21	22	23	24	25	26	27	28	21	22	23	24	25	26	27
	28	29	30	31	..	..	..	..	28	29	30	31	..	..	..

UNIVERSITY DAYS.

- 1872 { 10 Sept.—Tuesday.....FIRST TERM begins.
 10 Sept.—Tuesday } ...ENTRANCE EXAMINATIONS.
 11 Sept.—Wednesday }
 9 Dec.—Thursday.....ANNUAL MEETING, Board of Regents.
 19 Dec.—Thursday.....FIRST TERM ends.

WINTER RECESS.

- 1873 { 7 Jan.—Tuesday.....SECOND TERM begins.
 13 Feb.—Monday.....INCORPORATION DAY.
 17 Apr.—Thursday.....SECOND TERM ends.

SPRING RECESS.

- 1873 { 20 Apr.—Tuesday.....THIRD TERM begins.
 18 June—Wednesday.....THIRD TERM ends.
 19 June—Thursday.....COMMENCEMENT.

THE VACATION.

- 1873 { 9 Sept.—Tuesday.....FIRST TERM begins.
 9 Sept.—Tuesday } ...ENTRANCE EXAMINATIONS.
 10 Sept.—Wednesday }
 18 Dec.—Thursday.....FIRST TERM ends.

1st Month.

JANUARY, 1873.

31 Days.

MOON'S PHASES.

	D. H. M.		D. H. M.
First Quarter,	5 3 15 Eve.	New Moon,	28 11 15 Mor.
Full Moon.	13 10 11 Mor.	Moon Apogee.	15 7.7 Eve.
Last Quarter,	21 2 19 Eve.	Moon Perigee.	28 7.3 Eve.

Day of Month.	Day of Week.	Chronology, &c.	Sun.	Sun	Sun's	Sun at	Moon	Moon
			rises	sets	Dec. S.	Neon	Sets.	South.
			H. M.	H. M.	Deg Min Sec.	H. M. S.	H. M.	H. M.
1	W.	NEW YEAR'S DAY.	7 41 4	28 22	57 12	12 4 5	7 27	2 41
2	Th		41 28	52 22		4 33	8 54	3 38
3	F.		40 29	46 26		5 1	10 12	4 31
4	S.		40 30	40 3		5 28	11 27	5 20
5	M.		40 31	33 13		5 55	Morn	6 7
6	W.		40 32	25 56		6 21	38	6 53
7	T.	<i>Second Term Begins.</i>	40 34	18 13		6 47	1 40	7 39
8	W.		39 36	10 4		7 13	2 58	8 27
9	Th		39 37	1 28		7 37	4 5	9 17
10	F.		39 38	21 52 27		8 1	5 8	10 7
11	S.		38 39	43 0		8 25	6 13	10 59
12	T.		38 41	33 8		9 48	Rises	11 51
13	M.		37 42	22 51		9 10	4 39	Morn
14	T.		37 44	12 9		9 32	5 39	41
15	W.		36 45	1 3		10 53	6 43	1 29
16	Th		35 46	20 49 33		10 13	7 45	2 15
17	F.		34 47	37 39		10 33	8 45	2 53
18	S.		34 48	25 22		10 52	9 47	3 39
19	T.		33 49	12 42		11 10	10 50	4 20
20	M.	Peace declared 1753.	33 50	19 59 39		11 27	11 53	5 0
21	T.		31 52	46 13		11 44	Morn	5 42
22	W.		32 53	32 26		12 0	1 02	6 27
23	Th		30 54	18 17		12 15	2 12	7 15
24	F.		29 55	3 46		12 30	3 27	8 9
25	S.		28 56	18 48 54		12 43	4 31	9 7
26	T.		27 58	33 42		12 56	5 54	10 11
27	M.		26 59	18 9		13 8	6 57	11 16
28	T.	Land grant for Ag'l Col-	25 5 0	2 17		13 19	Sets	ev 21
29	W.	leges accepted 1863.	24 1 17	46 5		13 30	6 25	1 22
30	Th		23 3	29 34		13 39	7 48	2 18
31	F.		22 5	12 45		13 48	9 7	3 11

The first day of January, 1873, is the 2,405,160th day since the commencement of the Julian Period.

The mean obliquity of the Ecliptic, 1873.0, is 23 deg. 27 min. 20.31 sec. of arc. Precession of the equinoxes, 1873.5, 50.2577 seconds. Sun's mean Horizontal Parallax, 8.848 seconds.

THE UNIVERSITY AT HOME.

[*Letter of Pliny the Younger to Tacitus, in the Reign of the Emperor Trajan, A. D. 79, 117.*]

"Being lately at Comum" (the Como of the present), "the place of my nativity, a young lad, son to one of my neighbors, made me a visit. I asked him whether he studied rhetoric, and where? He told me he did, and at Mediolanum (Milan). 'And why not here?' 'Because,' said his father, who came with him, 'we have no professors.' 'No,' said I; 'surely it nearly concerns you who are fathers (and very opportunely several of the company were fathers), that your sons should receive their education here, rather than anywhere else. For where can they be placed more agreeably than in their own country, or instructed with more safety and less expense than at home and under the eye of their parents? Upon what very easy terms might you, by a general contribution, procure proper masters, if you would only apply toward the raising a salary for them the extraordinary expense you sustain for your sons' journeys, lodgings, and for whatever else you pay, in consequence of their being educated at a distance from home; as pay you must for every article of every kind. Though I have no children myself, yet I shall willingly contribute to a design so beneficial to my native country, which I consider as my child or my parent: and therefore I will advance a third part of any sum you may think proper to raise for this purpose. I would take upon myself the whole expense, were I not apprehensive that my benefaction might hereafter be abused and perverted to private ends, which I have observed to be the case in several places where public foundations of this nature have been established. For though they may be negligent in disposing of another's bounty, they will certainly be cautious how they apply their own, and will see that none but those who deserve it shall receive my money, when they must at the same time receive theirs too.

"Let my example, then, encourage you to unite heartily in this useful design; and be assured the greater the sum my proportion shall amount to, the more agreeable it will be to me. You can undertake nothing that will be more advantageous to your children, nor more acceptable to your country. Your sons will, by these means, receive their education where they received their birth, and be accustomed from their infancy to inhabit and affect their native soil. May you be able to procure professors of such distinguished abilities that the neighboring towns shall be glad to draw their learning from hence: and, as you now send your children to foreigners for education, may foreigners, in their turn, flock hither for their instruction. * * * * * Farewell."

MOON'S PHASES.

	D. H. M.		D. H. M.
First Quarter,	4 3 54 Mor.	New Moon,	26 9 10 Eve.
Full Moon,	12 3 21 Mor.	Moon Apogee,	11 9.5 Eve.
Last Quarter,	20 5 11 Mor.	Moon Perigee,	26 7.9 Mor.

Day of Month.	Day of Week.	Chronology, &c.		Sun	Sun	Sun's	Sun at	Moon	Moon
				rises	sets	Dec. S.	Noon	Sets.	South.
				H.M.	H.M.	Deg. Min. Sec.	H. M. S.	H. M.	H. M.
1	S.			7 21	5 7	16 55 38	12 13 56	10 20	4 0
2	S.			20	8	38 12	14 3	11 35	4 48
3	M.			19	9	20 30	14 9	Morn	5 36
4	T.			18	10	2 31	14 15	45	6 24
5	W.			17	11	15 44 15	14 19	1 56	7 13
6	Th			15	13	25 43	14 23	3 3	8 4
7	F.			14	14	6 55	14 26	4 7	8 55
8	S.			12	16	14 47 53	14 28	5 6	9 47
9	S.			10	18	28 35	14 29	5 56	10 37
10	M.			9	19	9 4	14 30	6 37	11 26
11	T.			8	21	13 49 18	14 29	Rises	Morn
12	W.			6	22	29 19	14 28	5 37	12
13	Th	Territorial University in- corporated 1851.		4	24	9 6	14 27	6 38	56
14	F.			2	26	12 48 41	14 24	7 40	1 38
15	S.			1	27	28 3	14 21	8 42	2 19
16	S.			0	28	7 14	14 17	9 47	2 59
17	M.			6 59	29	11 46 13	14 12	10 50	3 40
18	T.	University reorganized 1868.		57	31	25 0	14 7	11 59	4 23
19	W.			55	32	3 37	14 1	Morn	5 9
20	Th			54	34	10 42 4	13 54	1 10	5 59
21	F.			53	35	20 20	13 47	2 22	6 53
22	S.	WASHINGTON'S BIRTHDAY.		50	37	9 58 27	13 39	3 33	7 52
23	S.			49	38	36 25	13 31	4 39	8 55
24	M.			47	39	14 14	13 21	5 35	9 58
25	T.			45	41	8 51 54	13 12	6 20	11 0
26	W.	Land Grant 72 sec. for		43	43	29 27	13 2	Sets	11 59
27	Th	State University 1858.		41	44	6 52	12 51	6 38	ev 55
28	F.			40	46	7 44 10	12 39	7 57	1 47

SUNDAY—so-called because this day was anciently dedicated by our Teutonic ancestors to the *Sun*, or to its worship. Sunday is the name of the *day*. Sabbath, from Hebrew *Shabath*, to rest from labor, denotes the *institution*. The *Sabbath* of the Jews is upon *Saturday*; that of the Christians, on *Sunday*. The use of the words as synonymous is un-English.

THE UNIVERSITY AND THE HIGH SCHOOLS OF MICHIGAN.

[*Extract from the Annual Report of President Angell, for 1872.*]

It is with great pleasure that I refer to the first year's experience in forming a quasi organic connection between the University and the High Schools. It will be remembered that if the Faculty on the report of a Committee of Inspection, approve the work of a school, then the University receives without examination the graduates of that school, provided their certificates from their school board or superintendent, declare that they have successfully pursued all the studies required for admission to our Freshman class. This promise to receive the graduates of the schools binds the University only for the year in which the inspection is made. Last year we received 50 Freshmen on certificates, viz: 3 from the Detroit High School, 8 from Flint, 7 from Jackson, 3 from Kalamazoo, 1 from Adrian, and 28 from Ann Arbor. We see nothing in the result of the experiment to deter us from repeating it.

Those who predicted the filling up of the Freshman class with poor material, or the lowering of the standard of scholarship in consequence of this step, *have proved false prophets*. Of the Freshmen, who were "conditioned" or who "failed to pass" at the examination of the past year, a decidedly larger percentage is found in that portion of the class which entered on examination than in that portion which was received on certificate. This is only one test, it is true. But the indication which it furnishes that the students, who entered by certificate, were on the whole better prepared than those who entered after examination, is in accordance with the general impression, which the daily class-room work has made on the instructors of the class.

There is the very strongest evidence that the effect upon the schools which stand in this new relation to the University, has been most helpful. It has lent a new stimulus to the scholars, teachers and friends of the school. The visits of the Committee of Inspection have been received as gratifying proof of the interest of the University in the schools. The conferences with the teachers and superintendents, have been instructive both to them and to us. The schools become thoroughly identified with us in our work. When the High Schools generally in the State shall have so far advanced that the University can establish this relation with them, we shall have a completely graded system of substantially free public education stretching from the primary school through the University to the completion of a professional course

MOON'S PHASES.

	D.	H.	M.		D.	H.	M.
First Quarter,•	5	7	13	Eve.	New Moon,	28	6 42
Full Moon,	13	11	20	Eve.	Moon Apogee,	11	2.6
Last Quarter,	21	4	8	Eve.	Moon Perigee,	26	4.5

Day of Month.	Day of Week.	Chronology, &c.	Sun	Sun	Sun's	Sun at	Moon	Moon
			rises	sets.	Dec. S.	Noon	Sets.	South
			H.M.	H.M.	Deg.Min.Sec.	H. M. S.	H. M.	H. M.
1	S.		6 39	5 47	7 23	12 28	9 14	2 37
2	9	Ter. Minn. created in 1849.	37 48	6 58	7 27	12 15	10 29	3 27
3	M.		35 49	35 26		12 2	11 41	4 16
4	T.	Board of 3 Regents created	33 51	12 20		11 49	Morn	5 7
5	W.	1864.	32 53	5 49	9	11 35	53	5 58
6	Th		30 53	25 53		11 21	1 58	6 50
7	F.		28 54	2 33		11 6	3 1	7 43
8	S.		27 55	4 39	10	10 51	3 56	8 34
9	10		25 57	15 43		10 36	4 39	9 23
10	M.		23 58	3 52	13	10 20	5 16	10 10
11	T.		20 6	0 28	39	10 4	5 46	10 54
12	W.		19 1	5 5		9 47	6 11	11 37
13	Th		17 3	2 41	27	9 31	Rises	Morn
14	F.		15 4	17 49		9 14	6 35	18
15	S.		13 5	1 54	8	8 57	7 39	59
16	11		11 7	30 27		8 39	8 45	1 40
17	M.		9 8	6 46		8 21	9 51	2 22
18	T.		7 9	0 43	4	8 4	11 1	3 7
19	W.		5 10	19 22		7 46	Morn	3 55
20	Th		3 12	+ 4 20		7 28	12 4	4 47
21	F.		1 13	0 28	00	7 9	1 23	5 43
22	S.		0 14	51 40		6 51	2 31	6 43
23	12		5 58	1 15	18	6 33	3 27	7 44
24	M.		56 17	38 56		6 15	4 14	8 45
25	T.		54 18	2 2 29		5 56	4 52	9 43
26	W.		53 19	26 00		5 38	5 22	10 36
27	Th		51 20	49 30		5 19	Sets	11 31
28	F.		49 22	3 12	55	5 1	6 45	ev 22
29	S.		47 23	36 17		4 43	8 3	1 13
30	13		45 24	59 34		4 24	9 17	2 3
31	M.		43 25	4 22	47	4 6	10 33	2 55

MONDAY—i. e. the day sacred to the Moon in old German Mythology.
 TUESDAY—the day of *Tius*, or *Tivis*, the *Mars* of our ancestors.
 WEDNESDAY—*Wodens'* day. This deity, also named *Odin*, was the supreme god of the ancient heathen Germans and Scandinavians.

THE USES OF ASTRONOMY.

In the first place, then, we derive from the observations of the heavenly bodies, which are made at an observatory, our only adequate measure of time and our only means of comparing the time of one place with the time of another. Our artificial timekeepers—clocks, watches, and chronometers—however ingeniously contrived and admirably fabricated, are but a transcript, so to say, of the celestial motions, and would be of no value without the means of regulating them by observation. It is impossible for them under any circumstances to escape the imperfection of all machinery, the work of human hands; and the moment we remove with our timekeeper east or west, it fails us. It will keep home time alone, like the fond traveler who leaves his heart behind him. The artificial instrument is of incalculable utility, but must itself be regulated by the eternal clock-work of the skies.

This single consideration is sufficient to show how completely the daily business of life is affected and controlled by the heavenly bodies. It is they and not our main-springs, our expansion balances, and our compensation pendulums, which give us our time. To reverse the line of Pope—

'Tis with our watches as our judgments; none
Go just alike, but each believes his own.

But for all the kindreds and tribes and tongues of men—each upon his own meridian—from the Arctic pole to the equator, from the equator to the Antarctic pole, the eternal sun strikes twelve at noon, and the glorious constellations, far up in the everlasting belfries of the skies, chime twelve at midnight;—twelve for the pale student over his flickering lamp, twelve amid the flaming wonders of Orion's belt, if he crosses the meridian at that fated hour;—twelve by the weary couch of languishing humanity; twelve in the star-paved courts of the empyrean;—twelve for the heaving tides of the ocean; twelve for the weary arm of labor; twelve for the toiling brain; twelve for the watching, waking, broken heart; twelve for the meteor which blazes for a moment and expires; twelve for the comet whose period is measured by centuries; twelve for every substantial, for every imaginary thing, which exists in the sense, the intellect, or the fancy, and which the speech or thought of man, at the given meridian, refers to the lapse of time.
—*Everett.*

The periodic movements of the universe are the same, up and down, from age to age. And the universal intelligence puts itself in motion for every separate effect; and if this is so, be thou content with that which is the result of its activity; or else it put itself in motion once, and everything else comes by way of sequence in a manner. * * * *

* * * * In a word, if there is a God, all is well; and if chance rules, do not thou also be governed by it?—*Marcus (Aurelius) Antoninus.*

MOON'S PHASES.

	D. H. M.		D. H. M.
First Quarter,	4 0 24 Eve.	New Moon,	26 4 30 Eve.
Full Moon,	12 3 39 Eve.	Moon Apogee,	7 5.2 Eve.
Last Quarter,	19 11 36 Eve.	Moon Perigee,	23 1.5 Eve.

Day of Month. Day of Week.	Chronology, &c.	Sun.	Sun	Sun's	Sun at	Moon	Moon
		rises	sets	Dec. S.	noon	Sets.	South.
		H. M.	H. M.	Deg. Min. Sec.	H. M. S.	H. M.	H. M.
1 T.		5 40	6 28	4 45 56	12 3 48	11 45	3 48
2 W.		39	29	5 8 59	3 30	Morn	4 41
3 Th		37	30	31 56	3 12	50	5 35
4 F.		35	31	54 48	2 54	1 51	6 27
5 S.		33	32	6 17 33	2 37	2 36	7 18
6 14		31	33	40 12	2 19	3 17	8 6
7 M.	Minn. admitted 1858.	30	34	7 2 44	2 2	3 50	8 51
8 T.		29	35	25 9	1 45	4 16	9 34
9 W.		27	37	47 26	1 28	4 38	10 16
10 Th		24	39	8 9 35	1 12	4 59	10 57
11 F.		23	40	31 39	0 56	Rises	11 38
12 S.		21	41	53 28	0 40	6 34	Morn
13 15		19	42	9 15 11	0 24	7 41	20
14 M.		16	44	36 45	+ 0 9	8 51	1 4
15 T.		15	45	10 58 10	11 59 54	10 3	1 52
16 W.		14	46	19 25	59 39	11 15	2 43
17 Th	2D TERM ENDS.	12	47	40 30	59 25	Morn	3 38
18 F.		10	48	11 1 24	59 11	25	4 37
19 S.		8	50	22 8	58 58	1 25	5 37
20 16		7	51	42 41	58 45	2 12	6 36
21 M.		5	52	12 3 2	58 32	2 51	7 33
22 T.		3	53	23 11	58 20	3 24	8 29
23 W.		1	55	43 9	58 9	3 51	9 21
24 Th		0	56	13 2 54	57 58	4 14	10 11
25 F.		4 59	57	22 26	57 57	4 37	11 0
26 S.		57	59	41 45	57 37	Sets	11 50
27 17		55	7 0	14 0 51	57 28	8 8	ev 41
28 M.		53	1	19 43	57 19	9 22	1 34
29 T.	3D TERM BEGINS.	51	2	38 21	57 10	10 33	2 28
30 W.		50	3	56 44	57 2	11 38	3 23

THURSDAY—This day is named from its being anciently consecrated to *Thor*, the god of Thunder, son of *Odin*, or *Wodin*.

FRIDAY—The day dedicated in Teutonic Mythology to *Fria*, or *Freya*, the goddess of Marriage, wife of *Odin*.

SATURDAY—*Seater's day*—This Gothic Divinity has been erroneously confounded with the god Saturn of the Roman Mythology: hence the spelling.

THE PREPARATORY SCHOOLS OF GERMANY.

[By President McCosh of Princeton College.]

In turning now for a little to the German universities, we find that their success like that of the Scotch colleges, depends very much on their preparatory schools. The great middle schools of Germany are divided into two classes, the *Gymnasien* and the *Real Schulen*, in the first of which the chief attention is given to languages and literature, and in the second to science, always with literature. Some years ago, having received authority from the Education Bureau in Berlin to visit any school in Prussia, I inspected a sufficient number of these to enable me to judge of the system, which in respect of the thoroughness of the organization and the accuracy of the instruction conveyed, is worthy of all the commendation which has been bestowed upon it. Indeed it is *the one thing*, which, after somewhat modifying it, we should borrow from Germany, and carry out thoroughly in all the States of this country. I could not perceive that the elementary schools of Prussia were superior, or that they were even equal, to the schools of Ireland and New England. I am convinced that the German universities, with great excellences, have also great defects which we should take care not to transplant in this country. But the *Gymnasien* are vastly superior to the corresponding schools in the United States or in any other nation. It is *by means of these schools* that Prussia has been able to rear such a body of educated young men, who are destined to raise their country, both in the arts of war and of peace, above every other nation on the continent of Europe; and both Great Britain and America might find it for their good to study *this peculiarity of Prussia, this essential element of her present greatness*. The course of instruction in the *Gymnasien* and *Real Schulen* continues eight or nine years, and embraces not only the branches taught in our academies or high schools, but those taught in the *freshman and sophomore classes* of our university courses. These institutions are to be found in every considerable town and populous centre in Germany. I was astonished at the number of pupils in attendance, as well as at the minutely accurate character of the instruction imparted by a set of able and learned professors in each school. It is a most interesting circumstance that similar institutions, classical and scientific, are being planted all over the various States of Austria, and on visiting that country I found them in a state of great activity, and well supported. This is the peculiarity of German education which has raised the people to their present greatness, and which we would do well to study, and so far to copy.

The best way of avenging thyself is not to become like the wrong-doer.
—*Marcus Antoninus*.

MOON'S PHASES.

	D. H. M.		D. H. M.
First Quarter,	4 6 21 Mor.	New Moon,	26 3 8 Mor.
Full Moon,	12 5 6 Mor.	Moon Apogee,	5 11.4 Mor.
Last Quarter,	19 4 48 Mor.	Moon Perigee,	19 5.1 Eve.

Day of Month.	Day of Week.	Chronology, &c.	Sun	Sun	Sun's	Sun at	Moon	Moon
			rises	sets.	Dec. S.	Mark.	Sets.	South
			H.M.	H.M.	Deg Min. Sec	H. M. S.	H. M.	H. M.
1	Th		4 48	7 5	15 14 53	11 56 54	Morn	4 17
2	F.		47	6	32 46	56 47	31	5 9
3	S.		46	8	50 24	56 41	1 14	5 59
4	18		45	9	16 7 46	56 35	1 49	6 46
5	M.		43	10	24 52	56 30	2 18	7 30
6	T.		41	11	41 41	56 25	2 42	8 12
7	W.	Minnesota East annexed to Indiana 1800.	40	12	58 14	56 21	3 3	8 53
8	Th		38	13	17 14 30	56 17	3 24	9 33
9	F.		37	14	30 28	56 14	3 41	10 15
10	19	Steamer Virginia arrived Ft. Snelling 1823.	36	16	46 9	56 11	3 59	10 59
11	S.		34	17	1 32	56 9	4 20	11 46
12	M.		33	18	16 37	56 8	4 44	Morn
13	T.		32	19	31 24	56 7	Rises	36
14	W.		31	20	45 52	56 6	10 15	1 32
15	Th		30	21	0 1	56 7	11 21	2 30
16	F.		29	23	13 51	56 8	Morn	3 31
17	S.		28	24	27 21	56 9	11	4 31
18	20		27	25	40 32	56 11	55	5 30
19	M.		26	26	53 23	56 14	1 26	6 25
20	T.		24	27	20 5 54	56 17	1 53	7 16
21	W.		23	28	18 4	56 20	2 18	8 6
22	Th		22	29	29 53	56 25	2 40	8 54
23	F.		21	30	41 22	56 30	3 2	9 42
24	S.		21	32	52 30	56 35	3 26	10 31
25	21		20	33	21 3 15	56 41	Sets	11 22
26	M.		19	35	13 39	56 47	8 13	ev 15
27	T.		18	36	23 41	56 54	9 21	1 10
28	W.		18	36	33 21	57 1	10 21	2 5
29	Th		17	37	42 39	57 9	11 8	2 59
30	F.		16	38	51 34	57 17	11 48	3 51
31	S.		15	39	22 0 6	57 26	Morn	4 39

The principal Church days for the year 1873 are:—Epiphany, January 6th; Ash Wednesday, February 26th; Mid Lent Sunday, March 23d; Good Friday, April 11th; Easter Day, April 13th; Ascension Day, May 22d; Whitsun Day, June 1st; Trinity Sunday, June 8th; Advent Sunday, November 30th; Christmas, December 25th.

PRIZES FOR SUICIDE.

Some weeks ago, at the commencement anniversary of a college, not in Boston or New England, a long row of young men was called up to receive the prizes awarded to various forms of acquisition and scholarship. It was pleasant to see their shining faces, and to witness their triumph; but the pleasure was spoiled by the patent fact that their victories had been won at the expense of physical vitality. Physically, there was not a well developed man among them; and many of them were as thin as if they had just arisen from a bed of sickness.

There is one lesson which teachers, of all men living, are the slowest to learn, viz: that scholarship is not power, and that the ability to acquire is not the ability to do. The rewards of excellence in schools and colleges are, as a rule, meted out to those who have demonstrated their capacity for acquiring and cramming. The practical world has ceased to expect much of its valedictorians and its prize-medal bearers.

We can not but believe that prizes do more harm than good, and that it would be a blessing to the nation if they could be abolished in every school and college in the country. They are won invariably by those who need rather to be restrained than stimulated, and are rarely contended for by those whose sluggish natures alone require an extraordinary motive to exertion and industry. Their award is based upon the narrowest grounds. Their tendency is to convey a false idea of manly excellence, and to discourage the development of the stronger and healthier forms of physical and mental life.

The tendency in all these educational matters is to extremes. It is quite as much so in England as here. We have no sympathy with the aim which is fostered in some institutions of making athletes of the students. Base-ball matches, and rowing matches, and acrobatic feats, are well enough for those who have no brains to cultivate, or who are not engaged in educating and storing them; but they are not the things for studious young men. The awful strain that they inflict upon the body draws all the nervous energy to the support of the muscular system, and kills the ability to study. More than all, they wound the vitality of every man who engages in them. We once heard an English clergyman say that every noted athlete of his (the clergyman's) class in the university was either dead or worse. Moderate play every day in the open air, limited hours of study in the daytime, pleasant social intercourse, unlimited sleep, good food, the education of power by its use in writing, speaking and debating—these are what make men of symmetry, health and usefulness—*J. G. Holland, in Scribner's Monthly.*

MOON'S PHASES.

	D.	H.	M.		D.	H.	M.		
First Quarter,	3	0	7	Mor.	New Moon,	24	3	0	Eve.
Full Moon,	10	3	49	Eve.	Moon Apogee,	2	6.4		Mor.
Last Quarter,	17	9	20	Mor.	Moon Perigee,	14	8.4		Mor.

Day of Month. Day of Week.	Chronology, &c.	Sun	Sun	Sun's	Sun at	Moon	Moon
		rises	sets	Dec. S.	Noon	Sets.	South.
		H.M.	H.M.	Deg. Min. Sec.	H. M. S.	H. M.	H. M.
1 22	Ramsey Governor 1849.	4 15	7 40	22 8 15	11 57 35	19	5 24
2 M.		15	41	16 0	57 44	46	6 7
3 T.		14	42	23 23	57 54	1 8	6 48
4 W.		14	42	30 22	58 4	1 27	7 28
5 Th		14	42	36 57	58 14	1 45	8 9
6 F.		13	43	43 9	58 25	2 2	8 51
7 S.		13	44	48 56	58 36	2 21	9 37
8 23		13	45	54 20	58 47	2 45	10 26
9 M.		12	45	59 19	58 58	Rises	11 20
10 T.		12	46	23 3 55	59 10	7 58	Morn
11 W.		12	46	8 6	59 22	9 10	18
12 Th		11	47	11 52	59 34	10 6	1 20
13 F.		11	48	15 14	59 47	10 54	2 22
14 S.		11	49	18 12	59 59	11 30	3 23
15 24		11	49	20 45	12 0 12	11 59	4 20
16 M.		11	49	22 53	0 25	Morn	5 13
17 T.		12	50	24 37	0 38	24	6 4
18 W.	THIRD TERM ENDS.	12	50	25 50	0 50	45	6 51
19 Th	COMMENCEMENT.	12	50	26 50	1 3	1 7	7 40
20 F.		12	50	27 20	1 17	1 29	8 27
21 S.		12	50	*27 24	1 30	1 54	9 16
22 25		13	51	23 27 4	1 43	2 25	10 7
23 M.		13	51	26 19	1 56	3 2	11 2
24 T.		13	51	25 9	2 9	Sets	11 55
25 W.		13	51	23 34	2 21	9 4	ev 50
26 Th		14	51	21 35	2 34	9 44	1 42
27 F.		14	51	19 11	2 46	10 19	2 32
28 S.		14	51	16 22	2 59	10 47	3 19
29 26		15	51	13 9	3 11	11 10	4 2
30 M.		15	51	9 31	3 23	11 31	4 44

*The Sun's declination is his angular distance from the celestial equator. It is North (+) from September to March, and South (—) from March to September. It is at a *maximum* North in December, and South in June; at *zero* in March and September.

FARM AND COLLEGE.

A volume called "Practice with Science" contains some lectures which have been given at Cirencester* College. One is by the principal, upon Agricultural Education; and in this he combats the notion of the Royal Agricultural Society, that a well-educated farmer means a man who has learned Latin and Greek, and the notion of a member of the Central Farmers' Club, who argued that the college had placed the standard of qualification for its diploma too high, and that a two years' course of study was too long. "All that was necessary," said this objector, "was a sound knowledge of the principles of mathematics, chemistry, geology, botany, and veterinary surgery!" As if it did not cost a good part of a life to get a "sound knowledge" of any one of those little amusements. Still the notion that one may gather the fruits of study without climbing the tree is very common; and although the number of the Cirencester students who go steadily through the prescribed course and fairly earn the college diploma is increasing, it bears no proportion to the numbers that have come and gone every year, and to the pains taken to secure system and thoroughness in the machinery of education. The cost of this education is not more than has been found requisite to meet its unavoidable expenses. * * *

* * * * The English farmer cannot rise to the full height of the position made for him by the growth of science, until he receives a *sound school training*, valid in every part, and *follows it up with a thorough training for his business*. He should read and speak, not Greek and Latin, but two living languages besides his own, that he may be able to converse freely with farmers from abroad, and profit by their treaties and journals. But of the time taken from Latin and Greek the greater part should be spent in a particular cultivation of arithmetic and mathematics, and of the first principles of natural science. Then let him, at the age of sixteen, pass from school to the farm, and for the next year see and share in the work done upon it. So prepared let him go to the Cirencester College and work firmly through the two years' course. If he spend his time well he will learn enough for his purpose, although even after he has taken his diploma he will feel that the two years' curriculum was all too short. His age now will be nineteen. Armed with exact scientific knowledge, which he has been taught how to apply to every detail of agriculture, let him proceed to work and watch for himself, during the next two years, on any large well managed farm, taking a salary, perhaps, for the assistance he can give. At the end of that term he has reached the age of one and twenty. It is his own fault then if he be not in his own profession, what his cousin who goes every October to his London hospital will hardly be till a couple of years later in life, a duly qualified practitioner. Their day may be long coming, but of some such sort must be the English farmers of a day to come.—*Every Saturday*.

—*Pronounced, *Sis-e-ter*.

7th Month.

JULY, 1873.

31 Days.

MOON'S PHASES.

	D.	H.	M.		D.	H.	M.	
First Quarter,	2	4	58	Eve.	New Moon,	24	4 22	Mor.
Full Moon,	10	0	22	Mor.	Moon Perigee,	11	11.6	Eve.
Last Quarter,	16	2	46	Eve.	Moon Apogee,	27	3.1	Eve.

Day of Month.	Day of Week.	Chronology, &c.	Sun	Sun	Sun's	Sun at	Moon	Moon
			rises	Sets	Dec. N.	Mark.	Rises.	South.
			H.M.	H.M.	Deg. Min. Sec.	H. M. S.	H. M.	H. M.
1	T.		4 16	7 50	23 5 29	12 3 35	11 55	5 24
2	W.	Long's expedition 1823.	17 50		1 3	3 46	Morn	6 6
3	Th		17 50	22 56	13	3 57	8	6 45
4	F.	INDEPENDENCE 1776.	18 50	50 59		4 8	26	7 28
5	S.		18 49	45 20		4 18	46	8 14
6	27	Wis. enabling act 1846.	19 49	39 19		4 28	1 9	9 5
7	M.		20 49	32 53		4 38	1 41	10 2
8	T.		21 49	26 5		4 47	2 22	11 2
9	W.		21 48	18 53		4 56	Rises	Morn
10	Th		22 48	11 18		5 4	8 46	6
11	F.		23 47	3 20		5 12	9 28	1 9
12	S.		23 46	21 54	59	5 20	10 0	21 0
13	28		24 46	46 16		5 27	10 27	9 6
14	M.		26 46	37 11		5 34	10 51	3 59
15	T.		27 45	27 44		5 40	11 12	4 49
16	W.		28 44	17 54		5 46	11 35	5 37
17	Th		29 43	7 43		5 51	11 59	6 25
18	F.		29 43	20 57	10	5 55	Morn	7 13
19	S.		30 42	46 16		6 0	27	8 4
20	29		31 41	35 1		6 3	1 1	8 56
21	M.		32 39	23 25		6 6	1 40	9 49
22	T.		33 38	11 29		6 9	2 27	10 43
23	W.	Treaty Traverse de Sioux	34 37	19 59	12	6 11	3 29	11 36
24	Th	1851.	36 36	46 35		6 12	Sets	ev 27
25	F.		37 35	33 39		6 13	49	1 14
26	S.	Nicollet arrived 1836.	38 34	20 23		6 13	9 13	1 59
27	30		39 33	6 47		6 13	9 35	2 41
28	M.		40 32	18 52	53	6 12	9 54	3 21
29	T.		41 31	38 40		6 10	10 10	4 2
30	W.		42 30	24 9		6 8	10 29	4 42
31	Th		43 29	9 19		6 5	1 48	5 22

The Legal Holidays of Minnesota are—All Sundays, Thanksgiving Day, Good Friday, Christmas Day, New Year's Day, the 22d of February, and the 4th of July. Business paper due on these days is payable the business day next preceding.—*Chapter XLVI, Laws of 1871.*

THE EXAMINATIONS AT OXFORD.

A Word in Favor of Viva Voce Tests.

Both in the scholarships and in the honor-classes, nearly the whole weight is given to the work done on paper. The *viva voce* examination tells upon the final result in scarcely any perceptible degree. It is said in defence of this admitted preponderance of the paper-work, which has gradually and steadily increased in present memory, that it is the best test that can be applied as to a candidate's real acquirements; that when a young man comes to stand up face to face with three or four examiners, he gets nervous and distressed, fails to do himself justice, and, in fact, loses his head. Undoubtedly this is very true, and is likely to become more and more true every year, in proportion as *viva voce* examination becomes less frequent; but nervous awkwardness in a young Englishman is a defect rather to be corrected than indulged, and inasmuch as the work of his after-life will certainly not have to be done wholly upon paper, and as he will most probably be called upon to show his knowledge and his ability in some other way than in writing books, it is well that he should learn betimes not only to acquire and digest his knowledge, but to have it readily producible on demand; and that he should learn to face manfully positions which may be quite as trying to a nervous man as the candidate's side of an examination-table. The young student who cannot answer with tolerable grace and self-possession the questioning of a gentleman, who, after all, has not the least wish to puzzle or set him down, and whose only possible object is to get him to do his best, will be very apt to make failures in any line of moderately public life whatever may be his powers in the closet. The independent voter who catechises the county member, the dissenting cobbler who attacks the parson, are commonly as much their inferiors in good sense as in learning; but the training of the tap-room and the conventicle has given them a coolness and a power of fence which our high-class education neglects more and more to cultivate. The nervous diffidence which unsteadies the memory and fetters the tongue may be very interesting, but will be found highly inconvenient in practical life. The scholar is so much in danger, even under the most favorable circumstances, of becoming conversant with books rather than with men, that if he is to bring the power of his knowledge and his intellect to bear in any useful way upon society hereafter, we must not abate him of any help that we can give to make him not only the full man and the exact man, but also the ready man of the philosopher's axiom. The outward and visible glory of the arena has departed. The veriest hum-and-haw bungler, whose performance would not be tolerated in the first class of a national school, may have secured his Oxford first already—upon paper. He is a well-read and intelligent scholar, no doubt; but you do not wonder that if he emerges from his chrysalis under-graduateship into a country parson, his church is commonly empty; or if he has to make a speech hereafter as a county magistrate, his friends mercifully pull him down by his coat-tails.—*Blackwood.*

MOON'S PHASES.

First Quarter,	D. H. M.		New Moon,	D. H. M.
Full Moon,	1 8 17 Mor.		First, Quarter,	22 7 18 Eve.
Last Quarter,	8 7 40 Mor.		Moon Perigee,	30 9 36 Eve.
	14 10 29 Eve.		Moon Apogee,	9 4.7 Mor.
				23 10.0 Eve.

Day of Month.	Day of Week.	Chronology, &c.	Sun	Sun	Sun's	Sun at	Moon	Moon
			rises	sets.	Dec. S.	Noon	Sets.	South
			H.M.	H.M.	Deg Min. Sec.	H. M. S.	H. M.	H. M.
1	F.		4 44	7 28	17 54 12	12 6 2	11 10	6 6
2	S.		45	26	38 47	5 58	11 39	6 54
3	31		47	25	23 5	5 53	Morn	7 46
4	M.		48	24	7 7	5 47	12	8 44
5	T.	Treaty, Fond du lac, 1826.	48	23	16 50 51	5 42	56	9 46
6	W.		50	22	34 20	5 35	1 57	10 49
7	Th		51	20	17 32	5 28	Rises	11 52
8	F.		52	18	0 29	5 20	7 58	Morn
9	S.		54	16	15 43 11	5 12	8 28	52
10	32		55	15	25 37	5 3	8 52	1 48
11	M.		56	13	7 49	4 53	9 16	2 40
12	T.		57	12	49 46	4 43	9 38	3 31
13	W.	First Court in Minnesota	58	11	14 31 28	4 33	10 2	4 20
14	Th	at Stillwater 1849.	59	10	12 57	4 22	10 28	5 9
15	F.		5 00	8	13 54 12	4 10	11 1	6 0
16	S.		2	6	35 14	3 58	11 40	6 52
17	33		4	4	16 2	3 46	Morn	7 46
18	M.		5	3	12 56 38	3 32	23	8 39
19	T.		6	1	37 2	3 19	1 17	9 32
20	W.		7 6	59	17 13	3 5	2 18	10 23
21	Th		8	57	11 57 13	2 50	3 21	11 11
22	F.		9	56	37 1	2 36	Sets	11 57
23	S.	First University Faculty	10	54	16 38	2 20	7 40	ev 39
24	34	Elected 1869.	11	52	10 56 4	2 4	7 59	1 20
25	M.		13	51	35 20	1 48	8 17	2 0
26	T.		14	49	14 26	1 32	8 34	2 39
27	W.		15	47	9 53 22	1 15	8 53	3 20
28	Th		16	45	32 8	0 57	9 14	4 2
29	F.		18	44	10 46	0 39	9 37	4 47
30	S.		19	42	8 49 15	0 21	10 7	5 36
31	35		20	40	+ 27 35	0 3	10 47	6 30

THE CONSTELLATIONS.—The most ancient references to groups of stars are found in the book of Job, 9: 9; 26: 13; 28: 31, 32. According to Greek authorities, Egypt and Assyria produced the earliest astronomers. Greece received the knowledge of Astronomy through Phœnicia.

PUBLIC HYGIENE.—STATE BOARD OF HEALTH.

"While cure or palliation is the object of *medicine*, prevention is the object of *hygiene*; while the one studies the good of the unit, the other looks at the welfare of the mass; both make disease a study, and belong to the same class of sciences but in different ways. The Physician asks, what will *cure* an ague or mitigate a fever? the Health Officer, what will *prevent* them?"—*Guy*.

"It has to do with persons of every rank, of both sexes, of every age. It takes cognizance of the places and houses in which they live; of their occupation and modes of life; of the food they eat, the water they drink, the air they breathe; it follows the child to school, the laborer and artizan into the field and workshop; the sick man into the Hospital, the pauper into the Poor House; the lunatic to the Asylum; the thief to the Prison. To all these it makes application of a knowledge remarkable for its amount and the great variety of sources whence it is derived. To Physiology and Medicine it is indebted for what it knows of health and disease; it levies large contributions on chemistry, geology and meteorology; it co-operates with the architect and engineer; its work commends itself to the moralist and divine."—*Guy*.

"It transmutes these facts into scientific truth by the numerical method so often confounded with its leading application—Statistics. If this word meant what it once did—the science of States—then Hygiene would rank among its leading subdivisions as applying the great State policy of prevention to health and disease."—*Guy*.

"For a perfect system of hygiene we must combine the knowledge of the physician, the schoolmaster and the priest, and train the body, intellect and the moral soul in a perfect and balanced order."—*Parkes*.

Be it enacted by the Legislature of the State of Minnesota:

SECTION 1. The governor shall appoint seven physicians, one from the city of St. Paul and the other six from different sections of the State, who shall constitute the State Board of Health and Vital Statistics. The physicians so appointed shall hold their offices for four years, and until their successors are appointed, and all vacancies in the Board shall be filled by the Governor.

SEC. 2. The State Board of Health shall place themselves in communication with all the local boards of health, the hospitals, asylums, and public institutions throughout the State, and shall take cognizance of the interests of health and life among the citizens generally.

They shall make sanitary investigations and inquiries respecting the causes of disease, especially of epidemics, the source of mortality and the effects of localities, employments, conditions and circumstances on the public health; and they shall gather such information in respect to these matters as they may deem proper for diffusion among the people.

They shall devise some scheme whereby medical and vital statistics of sanitary value may be obtained, and act as an advisory Board to the State in all hygienic and medical matters, especially such as relate to the location, construction, sewerage and administration of prisons, hospitals, asylums and other public institutions.

The remaining sections relate to reports, quarantine, meetings, officers, expenses, &c. Approved March 4, 1872.

9th Month.

SEPTEMBER, 1873.

30 Days.

MOON'S PHASES.

	D. H. M.		D. H. M.
Full Moon,	6 2 57 Eve.	First Quarter,	29 8 44 Mor.
Last Quarter,	13 9 29 Mor.	Moon Perigee,	6 2.1 Eve.
New Moon,	21 11 39 Mor.	Moon Apogee,	20 1.6 Mor.

Day of Month.	Day of Week.	Chronology, &c.	Sun	Sun	Sun's	Sun at	Moon	Moon
			rises	sets	Dec. N.	Mark.	Sets.	South.
			H. M.	H. M.	Deg. Min. Sec.	H. M. S.	H. M.	H. M.
1	M.		5 22	6 37	8 5 48	11 59 44	11 39	7 29
2	T.		23	36	7 43 53	59 25	Morn	8 30
3	W.	First State Normal School organized 1860.	24	34	21 50	59 6	44	9 32
4	Th		25	33	6 59 41	58 46	2 3	10 33
5	F.		26	31	37 24	58 26	3 27	11 30
6	S.		27	29	14 61	58 6	Rises	Morn
7	36		28	27	5 52 32	57 46	7 17	25
8	M.		30	26	29 57	57 25	7 40	1 18
9	T.	FIRST TERM UNIVERSITY YEAR 1873-'74 BEGINS.	31	24	7 17	57 6	8 4	2 9
10	W.		32	21	4 44 31	56 44	8 29	3 0
11	Th		34	19	21 40	56 23	9 0	3 52
12	F.		35	18	3 58 44	56 2	9 37	4 45
13	S.		35	16	35 45	55 41	10 20	5 40
14	37		37	14	12 41	55 20	11 12	6 35
15	M.	Third State Normal or- ganized 1869.	38	12	2 49 33	54 59	Morn	7 28
16	T.		40	10	26 22	54 38	11	8 20
17	W.		41	8	3 8	54 16	1 14	9 9
18	Th		42	6	1 39 52	53 55	2 18	9 55
19	F.		43	4	16 33	53 34	3 21	10 39
20	S.		45	2	0 53 11	53 13	4 24	11 20
21	38	Pike reaches Kaposia, 1805.	46	0	29 49	52 52	Sets	12 0
22	M.		47	5	58 + 6 25	52 32	6 42	ev 39
23	T.		48	57	— 17 0	52 11	6 59	1 20
24	W.		49	55	40 25	51 50	7 18	2 1
25	Th		50	53	1 3 50	51 30	7 40	2 45
26	F.		52	51	27 16	51 10	8 8	3 32
27	S.		53	49	50 40	50 50	8 44	4 24
28	39		55	46	2 14 4	50 30	9 29	5 19
29	M.		56	45	37 26	50 10	10 28	6 18
30	T.		57	43	3 0 47	49 51	11 38	7 17

The Greek poets Homer and Hesiod refer to Arcturus, Sirius, the Pleiades, the Hyades, Orion, and the Bear. These poets lived between 750 and 850 years before Christ. Nearly 400 years before Christ all the leading constellations had received their names; for about that time Eudoxus, of Cnidus, wrote an account of them.

THE CHURCH IN EDUCATION.

But has the church no function in the matter of the education of the young? I believe she has a very great and responsible office, second only to that of parents, which is primary and equal to that of the State. Her function is to see that the education imparted be religious. Her direct office is confined to this. The commands are: "Feed My Sheep"—"Feed My Lambs." In the execution of the first of these, she does not seek to provide employment and food for her members. Her master did not require her to buy farms, to build factories, and open stores, for the benefit of her communicants. The business of the church is to proclaim and enforce the doctrines and the duties of the word of God on all who are under her influence, and thus make them, while not slothful in business, to be at the same time fervent in spirit, serving the Lord, whether in their farms, their factories or their stores. And just as little is it the direct office of a church to set up a college to teach such branches as mathematics and natural history and chemistry, or to plant schools for teaching penmanship and arithmetic. This is not one of the injunctions laid on the church in the word of God; this is not one of the powers which Christ has committed to her. Of this I am sure, that a church, a church court, a General Assembly, a Presbytery, is not the fittest body for conducting a factory or infirmary. The history of England, Scotland and Ireland corroborates this. The churches in those countries never were good managers of general educational institutions, and the people are now proceeding to take these out of the hands of the churches. I have not the least fear that religion will suffer in consequence. The truth is, that the colleges, such as Oxford, Cambridge, Dublin and Edinburgh, under the churches, did not promote the cause of religion to any extent, and for ages past the parochial schools of Scotland have not been in any special sense seminaries of religion. *

* * * I have been inquiring of late into the reason why the number of students attending our theological seminaries is so very inadequate to meet the wants of the church and the mission fields. I believe that one cause of this is to be found not in the want of colleges, but in *the want of good high schools and academies*, to set young men on the road, and prepare them for colleges.—*Dr. McCosh.*

QUERY.—Is it worth while or in good taste for Protestant Christianity, after having given up to the State the tutelage of the orphan, the relief and maintenance of the poor, the cure or permanent support of the idiot and the insane, the education of the deaf, the dumb, and the blind; in short, all grand and systematic charities—is it in order for the church to be strenuous in arrogating to herself any exclusive function in the ordinary education of the people or their leaders?

MOON'S PHASES.

	D. H. M.		D. H. M.
Full Moon,	5 11 19 Eve.	First Quarter,	28 5 58 Eve.
Last Quarter,	13 0 13 Mor.	Moon Perigee,	5 0.7 Mor.
New Moon,	21 4 43 Mor.	Moon Apogee,	17 10.1 Mor.

Day of Month.	Day of Week.	Chronology, &c.	Sun	Sun	Sun's	Sun at	Moon	Moon
			rises	Sets	Dec. S.	Noon	Rises	South.
			H.M.	H. M.	Deg. Min Sec.	H. M. S.	H. M.	H. M.
1	W.	Le Sueur on Blue Earth	5 58	5 41	3 24 6	11 49 32	Morn	8 17
2	Th	River, 1700.	59	40	47 22	49 13	58	9 14
3	F.	District School Elections.	6 0	38	4 10 36	48 54	2 18	10 9
4	S.		2	35	33 46	48 36	3 41	11 2
5	40	Second State Normal	4	33	56 53	48 18	Rises	11 53
6	M.		5	32	5 19 56	48 1	6 1	Morn
7	T.	School organized 1868.	6	30	42 56	47 44	6 27	45
8	W.	Reports of District Clerks	7	28	6 5 51	47 27	6 56	1 38
9	Th		9	26	28 41	47 11	7 31	2 32
10	F.	due.	10	25	51 26	46 55	8 11	3 28
11	S.	State Constitution adopted	11	23	7 14 5	46 40	9 3	4 25
12	41		12	21	36 39	46 25	9 59	5 21
13	M.	1857.	13	19	59 7	46 11	11 3	6 15
14	T.		14	18	8 21 28	45 57	Morn	7 5
15	W.		16	16	43 42	45 44	8	7 53
16	Th		18	14	9 5 49	45 32	1 12	8 37
17	F.		19	12	27 49	45 20	2 13	9 18
18	S.		20	10	49 40	45 9	3 17	9 59
19	42		22	9	10 11 22	44 58	4 18	10 38
20	M.		23	7	32 56	44 48	5 20	11 18
21	T.		24	5	54 20	44 39	Sets	11 59
22	W.		26	3	11 15 35	44 30	5 47	ev 43
23	Th		27	1	36 39	44 22	6 11	1 30
24	F.		28	0	57 33	44 15	6 43	2 20
25	S.		30	58	12 18 16	44 8	7 24	3 15
26	43		31	4	57 38 47	44 2	8 19	4 12
27	M.		32	56	59 7	43 57	9 26	5 10
28	T.		33	54	13 19 14	43 52	10 40	6 8
29	W.		35	53	39 8	43 49	11 58	7 4
30	Th		36	51	58 49	43 46	Morn	7 58
31	F.		38	49	14 18 17	43 44	1 18	8 40

TIMES FOR KILLING GAME IN MINNESOTA.—Woodcock, July 4 to Dec. 1. Prairie Hen, or Chicken, or White-Breasted, or White-Tailed Grouse, Aug. 1 to Dec. 1. Quail, Partridge, or Ruffed Grouse, Sept. 1 to Dec. 1. Penalty, \$5 and costs. Deer, Aug. 1 to Jan. 1. Penalty, \$10 and costs.

THE NATIONAL CENTENNIAL, 1876.

The Anniversary of the Independence of the United States in the year 1876, is to be celebrated by an exhibition of the products, arts, and industries of the country, and of the world. This is in accordance with an Act of Congress approved March 3d, 1871. By this act the task of preparing and superintending the exhibition was imposed upon the United States Centennial Commission, consisting of two members from each of the states and territories. The Commissioners have twice met in general session, a permanent organization has been effected, and the chief outlines of the plan for the exhibition have been agreed upon.

The exhibition is to be international and universal—international inasmuch as all nations will be invited to participate in it; and universal, because it will include a representation of all natural and artificial products, all arts, industries, and manufactures, and all the varied results of human skill, thought, and imagination.

The outlines of a simple yet comprehensive classification have been adopted. There will be ten departments, each subdivided into ten groups, and these again into classes. The details of this classification are now being elaborated and will be published in due season, together with such rules and regulations as may be found necessary for the proper conduct and management of the exhibition.

It is intended that ample space shall be assigned to each state, territory, and foreign country, for a just and proper display of their products. It is believed that not less than fifty square acres of floor space, under roof, will be required for this purpose. A site combining the advantages of a sufficient extent of level ground, with picturesque and cultivated surroundings, easy of access by rail, water, and ordinary roads, has been assigned for the buildings and grounds at Fairmount Park, in the City of Philadelphia. The exhibition will open in April, and close in October.

To make the Centennial Celebration such a success as the patriotism and the pride of every American demands, will require the co-operation of the people of the whole country. The United States Centennial Commission has received no Government aid, such as England extended to her World's Fair, and France to her Universal Exposition, yet the labor and responsibility imposed upon the Commission is as great as in either of these undertakings. It is estimated that \$10,000,000 will be required, and this sum Congress has provided shall be raised by stock subscription, and that the people shall have the opportunity of subscribing in proportion to the population of their respective States and Territories. The Commission looks to the unfailing patriotism of the people of every section to see that each contributes its share to the expenses, and receives its share of the of an enterprise in which all are so deeply interested.

MOON'S PHASES.

	D. H. M.		D. H. M.
Full Moon,	4 9 36 Mor.	First Quarter,	27 2 1 Mor.
Last Quarter,	11 6 36 Eve.	Moon Perigee,	2 7.2 Mor.
New Moon,	19 9 24 Eve.	Moon Apogee,	14 2.8 Mor.
		Moon Perigee,	29 8.9 Eve.

Day of Month.	Day of Week.	Chronology, &c.	Sun	Sun	Sun's	Sun at	Moon	Moon
			rises	sets	Dec. S.	Noon	Sets.	South.
			H.M.	H.M.	Deg. Min. Sec.	H. M. S.	H. M.	H. M.
1	S.	Chapel of St. Paul consecrated 1840.	6 39	4 48	14 37 31	11 43 42	2 36	9 40
2	44		41 46	56 30	43 42	3 55	10 30	
3	M.		42 45	15 15	43 42	5 13	11 22	
4	T.	ELECTION DAY.	44 43	15 33 45	43 43	6 32	Morn	
5	W.		45 42	52 0	43 45	Rises	16	
6	Th		46 41	16 9 8	43 47	6 3	1 12	
7	F.	48 40	27 41	43 51	6 49	2 9		
8	S.	49 39	45 7	43 55	7 46	3 7		
9	45	51 37	17 2 16	44 1	8 50	4 4		
10	M.	52 36	19 7	44 7	9 54	4 57		
11	T.	53 34	35 41	44 14	11 0	5 47		
12	W.	54 34	51 57	44 21	Morn	6 32		
13	Th	56 33	18 7 54	44 30	3	7 15		
14	F.	58 31	23 32	44 40	1 5	7 56		
15	S.	7 0	30 38 51	44 50	2 7	8 36		
16	46	1 29	53 51	45 3	3 7	9 15		
17	M.	Carver at St. Anthony's Falls 1776.	3 29	19 8 29	45 14	4 12	9 56	
18	T.		4 28	22 48	45 26	5 18	10 39	
19	W.		5 27	36 45	45 40	Sets	11 25	
20	Th	7 26	50 21	45 55	4 44	ev 15		
21	F.	8 25	20 3 35	46 10	5 22	1 9		
22	S.	9 25	16 28	46 27	6 13	2 6		
23	47	10 24	28 57	46 44	7 16	3 5		
24	M.	11 23	41 4	47 1	8 31	4 4		
25	T.	12 22	52 48	47 20	9 48	5 0		
26	W.	13 21	21 4 8	47 39	11 5	5 53		
27	Th	14 21	15 4	47 59	Morn	6 44		
28	F.	15 21	25 36	48 19	22	7 33		
29	S.	16 20	35 44	48 41	1 37	8 21		
30	48	18 20	45 26	49 3	2 52	9 11		

In 368 Colleges of the United States, reporting to the Commissioner of Education, there are 2,962 instructors, and 49,287 students; 155 instruct gentlemen only; 99 both ladies and gentlemen. 136 "Female Colleges" have 1,163 instructors, and 12,841 pupils.

THE NEW YORK ACADEMIES.

Fifty years ago, almost the only superior schools below the colleges to be found in the country, were those which were devoted to the preparation of boys for entering college; and in these very little was taught beyond the ancient languages. Now, the academies of the state of New York, and the schools of corresponding grade in most of the northern, middle and western states, give instructions in as large a range of subjects as the colleges themselves. They differ from the colleges in permitting to their pupils the largest freedom of choice in the selection of their studies, and in limiting attendance to no determinate period of years. Some of them, perhaps most of them, have established what they call "a graduating course of study," corresponding to the college curriculum; at the close of which they grant certificates of proficiency, or diplomas, to those who have completed the course; but these certificates confer no rights or privileges, and though often representing an amount of attainment equal to that of many college graduates, do not carry with them a prestige like that which accompanies a degree of Arts. Academies conducted on this plan have all the characteristics of the ordinary college, with the elective system added. Except as to this additional feature, and in being open to both sexes, they do not differ in any material respect from the average college of the country. There are unquestionably academies in the State of New York which, considered as educational instrumentalities, are immensely superior to many institutions elsewhere, which in virtue of a name and a charter are entitled by law to take rank above them. In the list of the subjects taught in these academies, there is not one wanting which is to be found in the curriculum of the average college of the United States.

The academies of the state of New York fulfil a double function. They are at once schools of elementary training, and schools of superior culture. In the advantages of elementary instruction which they offer, all their pupils more or less participate; the higher instruction benefits a more limited number. Were they restricted solely to this superior function, they would occupy the grade and perform substantially the work of the German gymnasium.

Now of the forty-five hundred students of the higher class in daily attendance in the academies, at least a fifth part may be assumed to be pursuing the advanced studies of the programme, such as correspond to the later years in college.—*President Barnard, of Columbia College.*

When any skeptic or bigot claims to be heard on the questions of intellect and morals, we ask if he is familiar with the books of Plato, where his pert objections have once for all been disposed of. If not, he has no right to our time. Let him go and find himself answered there.—*Emerson.*

12th Month.

DECEMBER, 1873.

31 Days.

MOON'S PHASES.

	D. H. M.			D. H. M.
Full Moon,	3 10 8	Eve.	First Quarter,	26 9 53
Last Quarter,	11 3 42	Eve.	Moon Perigee,	1 11.0
New Moon,	19 0 37	Eve.	Moon Apogee,	24 3.3
				Eve.

Day of Month.	Day of Week.	Chronology, &c.		Sun	Sun	Sun's	Sun at	Moon	Moon
				rises	Sets	Dec. S.	Noon	Rises	South.
				H. M.	H. M.	Deg. Min. Sec.	H. M. S.	H. M.	H. M.
1	M.			7 20	4 19	21 54 44	11 49 25	4 9	10 2
2	T.			21	18	22 3 37	49 48	5 25	10 56
3	W.			22	18	12 4	50 12	Rises	11 52
4	Th			24	18	20 5	50 37	4 37	Morn
5	F.			25	18	27 40	51 2	5 31	51
6	S.			25	18	34 49	51 27	6 34	1 49
7	49			25	18	41 31	51 53	7 38	2 45
8	M.			26	18	47 47	52 20	8 43	3 37
9	T.	ANNUAL MEETING of		27	17	53 36	52 46	9 48	4 25
10	W.	Board of Regents.		28	17	58 57	53 14	10 51	5 10
11	Th			30	17	23 3 52	53 42	11 41	5 51
12	F.			31	17	8 19	54 10	Morn	6 22
13	S.			32	17	12 19	54 38	55	7 11
14	50			32	17	15 51	55 7	1 57	7 50
15	M.			33	18	18 54	55 36	3 2	8 32
16	T.			33	18	21 30	56 6	4 9	9 17
17	W.			34	19	23 38	56 35	5 18	10 5
18	Th	FIRST TERM 1873-4 ENDS.		35	19	25 18	57 5	6 30	10 58
19	F.			36	19	26 29	57 35	Sets	11 55
20	S.			36	19	27 12	58 5	5 5	ev 55
21	51			37	20	27 27	58 35	6 17	1 56
22	M.			37	20	27 13	59 5	7 35	2 54
23	T.			38	21	26 31	59 35	8 54	3 50
24	W.			38	22	25 21	12 0 5	10 12	4 42
25	Th	CHRISTMAS.		38	23	23 42	0 35	11 28	5 31
26	F.			38	23	21 35	1 5	Morn	6 19
27	S.			39	24	19 0	1 34	42	7 7
28	52			39	25	15 57	2 4	56	7 56
29	M.			39	26	12 26	2 33	12	8 47
30	T.			39	27	8 27	3 2	25	9 41
31	W.			40	27	4 0	3 31	40	10 38

IN order to ascertain the dates of events in the "new style," we have to deduct from the "old style" ten days for the sixteenth century, ten for the seventeenth, eleven for the eighteenth, and twelve for the nineteenth. Some historians have fallen into blunders by neglecting this growing difference.

WOMEN IN COLLEGES.

"Four years ago I had never seen a lady in a recitation room. True, I had read science from the pen of Lady Herschel, and many other noble women, but how they had acquired their scientific information I had not stopped to inquire. During the last four years I have seen ladies and gentlemen in the class room on a perfect equality. I have seen the most intricate problems of Algebra, Analytical Geometry, the Calculus, and Astronomy thoroughly mastered by the ladies. I have seen ladies construe and scan the most difficult parts in the plays of Euripides and Sophocles, and dispose of Strophe and Antistrophe as readily as their masculine classmates. The same is true of every other department. And to-day, if I were asked to name the best classical or mathematical scholars I have met in the West, I would be compelled to name ladies. New England and the East generally fear the demoralization that, it is fancied must necessarily follow the admission of ladies. Were the West appealed to,—and I don't know any other part of the world whose opinion is entitled to so much respect, as it is founded on experience—it would declare it a much easier matter to govern an institution containing both ladies and gentlemen, than one which received either exclusively. The young gentlemen are more gentlemanly, and the ladies succeed more satisfactorily, than under the restraints of the old system. Sir, the problem is solved. The West will never go back. The East will come to us. Nor will it be long before the race will commence in the East for priority of action in this matter. Boys and girls can study together in the district schools. At what point in their education should they be separated?—*President Burns, of Simpson Centenary College.*

We hear much said about the learning to speak the German, French and other foreign languages, but little or nothing about learning to *hear* them, which is, indeed the more important thing, and the one first in order. In truth we ought in studying our own language to be more desirous of being able to understand what we hear, than of using it to advertise and obtrude our own conceits. When a person has got so far as to comprehend what is spoken in a foreign language the time is not distant when he can himself speak it, if he but exercise himself boldly thereto. Schools will never produce speakers in outlandish tongues, because they can afford but small opportunity for that education of the sense of hearing which must necessarily precede fluent speech. Philologers would do well to attend to this matter. The changes wrought upon words are due not more to the structure and operations of the vocal organs than to the auditory apparatus, for language existed many generations before letters were invented and still many more before they became the property of the whole world. In the formative stages of a language people speak and write just as they *hear* and hence arises the great variety of spellings, the which old books and parchments abound in.

METEOROLOGICAL STATISTICS FOR 1872.

The statistics given below are the result of personal observations taken daily at Minneapolis, at the hours of 7 A. M. and 2nd and 9 P. M., extending over a period of eight years, beginning with Nov. 1st, 1864. Minneapolis is in Lat. 45° N., Long. 93° 10' W., height above the sea 856 feet. The results for 1872 are given for only ten months, ending Oct. 31st. The winter of 1871-'72 was a little cooler, and the summer of 1872 was a little warmer than the average, both exactly the reverse of 1871.

YEARLY TEMPERATURES.

Mean temperature of the year 1865	41.82°
" " " " 1866	42.12°
" " " " 1867	40.56°
" " " " 1868	41.64°
" " " " 1869	41.53°
" " " " 1870	44.79°
" " " " 1871	42.30°
Average yearly temperature for the last 7 years	42.54°

SUMMER TEMPERATURES.

Mean temperature of summer 1870	69.77°
" " " " 1871	68.58°
" " " " 1872	69.92°
Average summer temperature for the last 8 years	69.37°
Maximum temperature 1870, June 29th	96°
" " " " 1871, July 12th	93°
" " " " 1872, June 25th and July 14th	94°

WINTER TEMPERATURES.

Mean temperature of winter 1869-'70	14.29°
" " " " 1870-'71	15.50°
" " " " 1871-'72	11.48°
Average winter temperature for the last 8 years	13.05°

MINIMUM TEMPERATURES.

Minimum temperature in 1865, December 21st	* - 33°
" " " " 1866, February 15th	- 31°
" " " " 1867, January 29th	- 32°
" " " " 1868, January 12th	- 40°
" " " " 1869, March 4th	- 23°
" " " " 1870, January 18th	- 30°
" " " " 1871, December 27th	- 29°
Average minimum temperature for the last 7 years	- 31°

WATER DEPOSIT.

Total amount of water from rain and snow in the year 1866	24	Inches.
" " " " " " " " 1867	33	"
" " " " " " " " 1868	33.253	"
" " " " " " " " 1869	37.515	"
" " " " " " " " 1870	30.320	"
" " " " " " " " 1871	30.904	"
" " " " " " " " in 10 months 1872	24.716	"
Average yearly deposit for the last 6 years	31.507	"
Average summer deposit for the last 7 years	12.932	"
Average winter deposit for the last 6 years	3.292	"

COMPARISONS WITH OTHER LOCALITIES.

Yearly mean temperature in Central Indiana	51.89°
" " " " in Marietta, Ohio	52.46°
" " " " in Rochester, New York	47.00°
" " " " in Minneapolis, Minnesota	42.54°
	INCHES.
Average water deposit, Pekin, Illinois	41.25
" " " " Richmond, Indiana	43.74
" " " " Marietta, Ohio	42.70
" " " " Rochester, New York	35.67
" " " " West Point, New York	47.65
" " " " Westfield, Massachusetts	48.15
" " " " Saco, Maine	45.11
" " " " Minneapolis, Minnesota	31.50

*—Before a figure indicates below zero.

W. C.

THE TECHNICAL EDUCATION FOR AMERICA.

But it is to be noticed that the chief American successes in invention are of one sort,—machinery and mechanical appliances. In other departments of invention, which require greater knowledge, we are obviously borrowers, rather than lenders. How many millions of dollars are sunk every few years in mining enterprises, through sheer ignorance! Freiberg and Swansea have to be called upon to smelt American ores. The best manager of American print-works receive patterns of the latest French designs by every steamer. The aniline colors are not American discoveries. There are hardly twenty miles of good road, in the European sense, in the whole United States. The various chemical industries are chiefly foreign. American ingenuity has been of more limited range than is commonly imagined. Not a few reputed American inventors are really of European origin. But, however this may be, we may zealously endeavor to strengthen the scientific professions in this country without being a whit less proud of the undisputed achievements of American ingenuity. It is not a question of promoting fertility of invention by improving technical education. Inventors are a law unto themselves. What the country needs is a steady supply of men well trained in recognized principles of science and art, and well informed about established practice. We need engineers who thoroughly understand what is already known at home and abroad about mining, road and bridge building, railways, canals, water-powers, and steam-machinery; architects who have thoroughly studied their art; builders who can at least construct buildings which will not fall down; chemists and metallurgists who know what the world has done and is doing in the chemical arts, and in the extraction and working of metals; manufacturers who appreciate what science and technical skill can do for the works which they superintend.

Americans must not sit down contented with their positions among the industrial nations. We have inherited civil liberty, social mobility, and immense native resources. The advantages we thus hold over the European nations are inestimable. The question is, not how much our freedom can do for us unaided, but how much we can help freedom by judicious education. We appreciate better than we did ten years ago that true progress in this country means progress for the world. In organizing the new education, we do not labor for ourselves alone. Freedom will be glorified in her works.—*President Eliot, of Harvard University.*

I believe that English is one of the great rising studies of the day and that more can be made out of it with less labor both for Linguistics and for general culture than out of any other branch of study. Anglo-Saxon studied six months would constitute such a basis for Philology, for Historical Grammar and for Literary Criticism as would be no despicable substitute for a good deal Greek, Latin or German.”—*A. S. W.*

THE GEOLOGICAL AND NATURAL HISTORY SURVEYS OF THE STATE.

Be it enacted by the Legislature of the State of Minnesota :

SECTION 1. It shall be the duty of the board of regents of the University of Minnesota to cause to be begun as soon as may be practicable, and to carry on a thorough geological and natural history survey of the state.

SEC. 2. The geological survey shall be carried on with a view to a complete account of the mineral kingdom as represented in the state, including the number, order, dip, and magnitude of the several geological strata, their richness in ores, coals, clays, peats salines and mineral waters, marls, cements, building stones and other useful materials, the value of said substances for economical purposes and their accessibility; also an accurate chemical analysis of the various rocks, soils, ores, clays, peats, marls and other mineral substances, of which complete and exact records shall be made.

SEC. 3. The natural history survey shall include, first, an examination of the vegetable productions of the state, embracing all trees, shrubs, herbs and grasses, native or naturalized in the state; second, a complete and scientific account of the animal kingdom as properly represented in the state, including all mammalia, fishes, reptiles, birds and insects.

SEC. 4. Said surveys and examinations shall be made in the manner and order following: First, the geological survey proper, together with the necessary and implied mineralogical investigations, all of which shall be undertaken as soon as may be practicable, and be carried forward with such expedition as may be consistent with economy and thoroughness; second, the botanical examinations; third, the zoological investigations; provided, however, that whenever the said board of regents may find it most economical to prosecute different portions of the surveys in conjunction, or that the public interest demands it, they may in their discretion, depart from the above prescribed order. And in the employment of assistants in the said surveys the board of regents shall at all times give the preference to the students and graduates of the University of Minnesota, provided the same be well qualified for the duties.

SEC. 5. The said board of regents shall also cause to be collected and tabulated such meteorological statistics as may be needed to account for the variety of climates in the various parts of the state; also to cause to be ascertained [by] barometrical observations or other appropriate means the relative elevations and depressions of the different parts of the state; and also on or before the completion of the said surveys, to cause to be compiled from such actual surveys and measurements as may be necessary, an accurate map of the state, which map when approved by the Governor shall be the official map of the state.

SEC. 6. It shall be the duty of the said board of regents to cause proper specimens, skillfully prepared, secured and labelled of all rocks, soils, ores, coals, fossils, cements, building stones, plants, woods, skins and skeletons of animals, birds, insects and fishes, and other mineral, vegetable and animal substances and organisms discovered or examined in the course of said surveys, to be preserved for public inspection free of cost, in the University of Minnesota, in rooms convenient of access and properly warmed, lighted, ventilated and furnished, and in charge of a proper scientific curator; and they shall also, whenever the same may be practicable, cause duplicates in reasonable numbers and quantities of the above named specimens, to be

collected and preserved for the purpose of exchanges with other state universities and scientific institutions, of which latter the Smithsonian Institution at Washington shall have the preference.

SEC. 7. The said board of regents shall cause a geological map of the state to be made, as soon as may be practicable, upon which, by colors and other appropriate means and devices, the various geological formations shall be represented.

SEC. 8. It shall be the duty of the said board of regents, through their president to make, on or before the second Tuesday in December of each and every year, a report showing the progress of the said surveys, accompanied by such maps, drawings and specifications as may be necessary and proper to exemplify the same, to the Governor, who shall lay the same before the legislature; and the said board of regents upon the completion of any separate portion of the said surveys, shall cause to be prepared a memoir or final report, which shall embody in a convenient manner all useful and important information accumulated in the course of the investigation of the particular department or portion, which report or memoir shall likewise be communicated through the Governor to the legislature.

SEC. 9. To carry out the provisions of this act the sum of one thousand dollars per annum is hereby appropriated, to be drawn and expended by the [said] board of regents of the University of Minnesota.

SEC. 10. This act shall take effect and be in force from and after its approval.

Approved March 1, 1872.

It is not too much to claim that geology lies at the foundation of society in more senses than one. For it has been ascertained that the rocks below, containing beds of silver, gold or iron, or strata of coal, have in every locality determined the occupation, furnished the wealth, and modified, if not created, the minds, manners and morals of the people who have occupied the surface. And the agricultural capabilities of the surface inhabited by man are as directly modified by geology as by any of the other circumstances that affect the wealth and happiness of humanity. You may say that the difference is in the topography of the country; but topography is but another phase of geology, because the geological structure of the country has determined its topography.—*Dr. F. S. Newberry.*

The most important facts of geology do not require, to discover them, any knowledge of mathematics or of chemical analysis; they may be studied in every bank, every grot, every quarry, every railway-cutting, by any one who has eyes and common-sense, and who chooses to copy the late illustrious Hugh Miller, who made himself a great geologist out of a poor stone-mason. Next, its most important theories are not, or need not be, wrapped up in obscure Latin and Greek terms. They may be expressed in the simplest English, because they are discovered by simple common-sense. And thus geology is (or ought to be), in popular parlance, the people's science—the science by studying which, the man ignorant of Latin, Greek, mathematics, scientific chemistry, can yet become—as far as his brain enables him—a truly scientific man.—*Rev. Charles Kingsley.*

CHRISTIAN HOMES FOR COLLEGE STUDENTS.

But many would go further than this. Many a parent, many a religious teacher, many a church desires and insists that youth at the critical period of college life shall be surrounded by positive, outspoken, and persuasive religious influences. They are afraid of a State University, and long for a denominational college. Hence come the many attempts to promote the higher education, when one united effort would hardly be adequate. But it seems to me that the end in view might be secured by better methods. Why may not any religious body or association, or private individual desirous of protecting the young men from temptation and encouraging them in the higher life, establish in connection with the University, a home, or hall, or college, which should be controlled according to the founder's views, should be a privileged residence, should be endowed perhaps with prizes and purses. I should hope they would not be barracks or dormitories—but homes, with rooms of common assembly and of private study. I should hope the bath room, and the dining hall would be included in the structure, and if any would go so far as to have a place of light amusement and recreation, I for one, should not object. Within such college halls, associations would be cherished like those of Oriel and Christ Church at Oxford, of South College and Farnam Hall in New Haven. Here, too, under right guidance, the best moral and religious influence might be promoted. What church, what associations, or what generous individual, will be the first to establish such a hall?—*President Gilman, of the University of California.*

 OF LIBRARIES.

Not only as giving the means of reference is such a library useful and practical. The very sight of an immense collection of books operates as a powerful excitement. Devoid, indeed, must that mind be, not only of classical but of all generous feeling, that can stand in such a presence without emotion. It is humbling, but not discouraging, we say. * *

* * * A large library is an indispensable requisite for a college. It should be the chief attraction for all its better class of students. But it should be a bibliotheca indeed, not a mere circulating library filled with the transient literature of the day. It should contain the most rare and most precious productions of past ages. It should represent the world in space and time. It should be a place for study and for writing, furnished with every accommodation for those purposes, with its regular hours of the day and evening, during which all should have free admission to its advantages for reading and consultation, but with no license for withdrawing books from their place of security.—*Taylor Lewis.*

THE UNIVERSITY OF MINNESOTA:

THE UNIVERSITY OF MINNESOTA was originally incorporated by an Act of the Territorial Legislature, dated February 13th, 1851, which authorized and directed the erection of suitable buildings on a proper site, to be selected at, or near the Falls of St. Anthony.—*See the Revised Statutes of the Territory of Minnesota, 1851, Chapter 28, Sections 1 and 13.*

The State Constitution, adopted October 13th, 1857, confirmed the above action, as follows:

“THE LOCATION OF THE UNIVERSITY OF MINNESOTA AS ESTABLISHED BY EXISTING LAWS, IS HEREBY CONFIRMED, AND SAID INSTITUTION IS HEREBY DECLARED TO BE THE UNIVERSITY OF THE STATE OF MINNESOTA. ALL THE RIGHTS, IMMUNITIES, FRANCHISES AND ENDOWMENTS HERETOFORE GRANTED OR CONFERRED, ARE HEREBY PERPETUATED UNTO THE SAID UNIVERSITY, AND ALL LANDS WHICH MAY BE GRANTED HEREAFTER BY CONGRESS, OR OTHER DONATIONS FOR SAID UNIVERSITY PURPOSES, SHALL VEST IN THE INSTITUTION REFERRED TO IN THIS SECTION.”—*Article VIII, Sec. 4, p. 37, of the General Statutes of Minnesota.*

The institution thus established derives its present organization from an act of the Legislature, approved February 18th, 1868, entitled “An act to Re-organize and Provide for the Government and Regulation of the University of Minnesota, and to Establish an Agricultural College therein.”

This important act not only prescribed in general terms the organization of the University, but confirmed to it the income to be derived from the sale of all the lands granted and to be granted to the State of Minnesota by virtue of the act of Congress approved July 2, A. D. 1862, “donating lands to the several States and Territories, which might provide Colleges for the benefit of Agriculture and the Mechanic Arts.”

This act was modified in some details by an amendatory act approved February 29, 1872.

The financial basis of the University consists of lands granted by the Congress of the United States, which are to be sold at such times as the Board of Regents may direct. These lands are sold and the proceeds invested not by the Board itself, but by the Auditor of State, upon the same terms and under the same conditions as the State School lands.—*See the General Laws of Minnesota, Chapter XXXVII, Title I, p. 317, and Title II, p. 325.*

The following is a statement of the amount, value and sales of the University lands as nearly as can be ascertained in advance of the official announcements:

Whole number of acres granted.....	202,083
Acres located at double minimum value.....	25,920
Estimated minimum value.....	\$920,000
Acres sold to pay old debts (about).....	14,000
Acres sold for permanent fund.....	22,393
Total purchase money.....	\$128,265.74
Paid for Experimental Farm.....	\$8,500.00
Permanent fund at interest.....	\$119,765.74

A considerable proportion of the lands are covered with pine timber, and are therefore already worth much more than their estimated minimum value. By judicious management in disposing of them, a fund may be created sufficient to provide for the support of the University for the present generation. Public assistance will be needed in the erection of buildings, their outfit and preservation. The Regents are prohibited by law from using the funds accruing from a large portion of the lands, for the erection of buildings, under any pretence whatever. They are, however, allowed to invest a sum not exceeding ten per cent. of the permanent fund in an Experimental Farm. The amount above mentioned is much less than that sum. It appears to have been the intention of Congress to provide a fund which should furnish instruction, leaving the States, who are the beneficiaries, to provide buildings.

THE OFFICERS OF THE UNIVERSITY.

THE BOARD OF REGENTS.

Hon. J. S. PILLSBURY, Minneapolis, E. D., President.

Hon. A. A. HARWOOD, Austin, Secretary.

Hon. JOHN NICOLS, St. Paul, Treasurer.

Hon. H. II. SIBLEY, St. Paul.

Hon. CHAS. S. BRYANT, St. Peter.

Hon. PARIS GIBSON, Minneapolis, W. D.

Hon. OLIVER DALRYMPLE, St. Paul.

And Ex-Officiis,

His Excellency, the Governor, Hon. HORACE AUSTIN.

The Superintendent of Public Instruction, Hon. H. B. WILSON.

The President of the University, WILLIAM W. FOLWELL,
St. Anthony's Falls.

THE UNIVERSITY FACULTY.

WILLIAM W. FOLWELL, M. A.,	PRESIDENT.
GABRIEL CAPMBELL, M. A., B. D.,	PROFESSOR of Mental and Moral Philosophy, and Instructor in German.
VERSAL J. WALKER, M. A.,	PROFESSOR of the Latin Lan- guage and Literature.
JABEZ BROOKS, M. A., D. D.,	PROFESSOR of the Greek Lan- guage and Literature.
ARIS B. DONALDSON, B. A.,	PROFESSOR of Rhetoric and English Literature.
EDWIN J. THOMPSON, M. A.,	PROFESSOR of Mathematics.
ELI L. HUGGINS, U. S. A.,	PROFESSOR of Military Science.
HELEN SUTHERLAND, M. A.,	ASSISTANT PROFESSOR of Latin and PRECEPTRESS.
—♦—	
NEWTON H. WINCHELL, M. A.,	Chief Geologist of Geological Survey.
MITCHELL D. RHAME, B. A.,	INSTRUCTOR in Civil Engineering and Physics.
DALSTON P. STRANGE, B. S.,	INSTRUCTOR in Agriculture and Chemistry.
HIRAM W. SLACK,	INSTRUCTOR in English and Nat- ural Sciences.
—>—	
WALTER E. FIELD,	SUPERINTENDENT of the Farm.

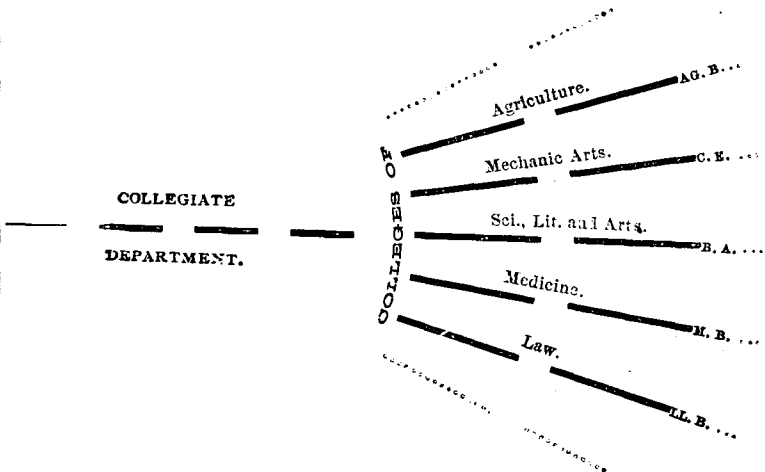
THE UNIVERSITY.

The organic law of the University authorizes the Board of Regents to establish "five or more Colleges or Departments, that is to say:

- " A DEPARTMENT OF ELEMENTARY INSTRUCTION;
- " A COLLEGE OF SCIENCE, LITERATURE AND THE ARTS;
- " A COLLEGE OF AGRICULTURE;
- " A COLLEGE OF THE MECHANIC ARTS;
- " A COLLEGE OR DEPARTMENT OF MEDICINE;
- " A COLLEGE OR DEPARTMENT OF LAW."

Of these the first four have been organized; the Departments of Law and Medicine will be put in operation so soon as the means of the University will permit. The Department of Elementary Instruction is represented by the COLLEGIATE DEPARTMENT.

The following diagram will suggest, though inadequately, the relations of the Departments:



REMARKS.—1. The COLLEGIATE DEPARTMENT, receiving the student from the Public High School, brings him, in the course of four years, to the end of the Second (commonly called the Sophomore) year of the ordinary College course. At this point he has his *option*, whether, equipped with the *fair preparation* for special studies acquired in the Collegiate Department, to enter at once some one of the professional schools as they may hereafter be established, or to proceed with higher academic studies, scientific, literary or classical, in the "COLLEGE OF SCIENCE, LITERATURE AND THE ARTS," with a view to securing the *best and fullest preparation* for professional or technical studies. The courses of study offered in that College cover, at present, a period of two years (Junior and Senior), and lead to Baccalaureate degrees. A University course "in Arts" is urgently recommended to all who can, by any reasonable means and sacrifices, attain to it.

2. It is a *part of the plan* of organization that the studies of the COLLEGIATE DEPARTMENT shall be dropped off as fast as the High and other Secondary Schools can take the work. *The University Begins Wherever They Leave Off.* It is hoped that not many years may pass before the whole work of the Collegiate Department will have been assumed by those schools.

Special Notices.—1. The LATIN SCHOOL hitherto attached to the Collegiate Department, will be discontinued after the close of the University year 1872-'73.

2. THE FOURTH CLASS (1st year) of the Collegiate Department, will be discontinued after the close of the University year 1874-'75, unless sooner ordered.

THE COLLEGIATE DEPARTMENT.

THE COURSES OF STUDY ARE:

1. CLASSICAL; of which the leading studies are, Greek, Mathematics and Latin:

2. SCIENTIFIC; of which the leading studies are, the Natural Sciences and Mathematics, with ONE at a time (as prescribed,) of the following Languages, viz: English, Latin, French, German:

3. LITERARY; of which the leading studies are, English or Latin, Mathematics and the Modern Languages.

In addition to the leading studies, the following studies and exercises are common to all the courses:

1. All the Mathematics, except that Descriptive Geometry is not given in the Classical course. 2. English Composition and Rhetoric. 3. The

Outlines of General History. 4. The Elements of General Chemistry. 5. Elementary Physics. 6. Zoology. 7. Descriptive Astronomy. 8. The Elements of Drawing. 9. Composition and Declamation throughout.

To the above may be added the Military Exercises, which are obligatory upon all the male students of the COLLEGIATE DEPARTMENT, unless specially excused by the Faculty.

ADMISSION.

Candidates for admission to the COLLEGIATE DEPARTMENT must be at least 14 years of age. They are examined in Reading, Writing and Spelling, Arithmetic and Elementary Algebra, U. S. History, Geography, English *or* Latin Grammar.

The Examinations in Reading, Writing and Spelling are rigorous.

Candidates for advanced standing are further examined in the studies already passed by their respective classes or sections. Only real *equivalents* are accepted.

Candidates for advanced standing will observe that the SECOND CLASS (3d Year) of the Collegiate Department corresponds with the so-called Freshman Class of the old Colleges.

Candidates for admission are furnished with a blank form of application, which must be properly filled up, signed and filed in the President's office before the student can be registered.

THE COURSE OF STUDY to be followed is selected at the time of entrance, and can only be changed by permission of the Faculty.

EXAMINATIONS.

The regular examination of candidates for admission to this Department is held on the first day of the First Term of each year. The candidates meet in the Assembly Hall at 9 o'clock A. M.

Examinations are held upon the studies of each term, and certificates are given to students who pass. Upon presentation of certificates for all the studies of his course, the student receives a "Final Certificate" which admits him to any appropriate College of the University without further examination.

The merits of students are ascertained from recitations *and* examinations, the relative weight of the latter increasing from year to year.

SYNOPSIS OF THE STUDIES OF THE COLLEGIATE DEPARTMENT.

CLASS.	COURSE.	FIRST TERM.	SECOND TERM.	THIRD TERM.
IV.	Classical.	Greek, begun. Eng. Comp. Caesar.*	Greek Grammar. Algebra. Caesar.	Greek Reader. Algebra. Cicero.
	Scientific	Nat. Philosophy, do. { History, Caesar, or German.	Nat. Philosophy. do. { Eng. Comp., Caesar, or German.	Uranog. do. { Eng. Words Cicero or German.
	Literary.	History, or Caesar. } do. German. (begun.)	Eng. Comp., or Caesar. } do. German.	Eng. Words } do. German. or Cicero. }
III.	Classical.	Anabasis.* Plane Geometry. Cicero.	Anabasis. Gen. History. Virgil	Herodotus. Hr. Algebra. Virgil.
	Scientific	Phys. Geog. do. { History, Cicero, or German.	Phys. Geog. and Botany. do. { Latham, Virgil, or German.	Botany. do. { Latham, Virgil, or German.
	Literary.	History, or Cicero. } do. German.	Latham, H'd B'k. } do. German. or Virgil. }	Latham, or Virgil. } do. German }
II.	Classical.	Homer. Hr. Alg. Chemistry.	Homer. Sd. and Sph. Geom. Livy.	Herodotus. Trig and Surv'g. Livy.
	Scientific	Chemistry, and Drawing. do. } Civ. Gov't, or French.	Chem. and Drawing, do. } Anglo-Saxon, Livy or French.	Physiology. do. } Anglo Saxon, Livy, or French.
	Literary.	Civ. Gov't. } do. French. or Chem. }	Anglo-Saxon, } do. French. or Livy. }	Anglo-Saxon, } do. French. or Livy. }
I.	Classical.	Physics. Analyt. Geom. Horace.	Demosth. Logic. Horace.	Prom. Vinc. Desc. Astr. Zoology.
	Scientific	do. do. English.	Physics. Desc. Geom. Logic.	Rhetoric, and Drawing. do. do.
	Literary.	do. do. do.	do. do. do.	do. do. do.

*Collaterals,—History, Geography, Antiquities, &c., throughout.

CHARGES.

THE CHARGES FOR INCIDENTAL EXPENSES ARE:

For the 1st Term.....	\$2.00
For the 2d Term.....	3.00
For the 3d Term.....	1.00

These sums are paid at the beginning of the respective Terms, before the student is admitted to recitations. No deductions are made for absence or late entrance.

THE COLLEGE OF SCIENCE, LITERATURE AND THE ARTS.

THE COURSES OF INSTRUCTION.

Agreeably to the legal style of this College, there are three courses of instruction, designated respectively:

- "THE COURSE IN SCIENCE;"
- "THE COURSE IN LITERATURE;"
- "THE COURSE IN ARTS."

These courses extend, at present, over a period of two years. The terms and recesses are the same as those of the Collegiate Department.

THE COURSE IN ARTS—(Classical.)

JUNIOR YEAR.

Greek,—Plato—Apology and Crito, with their Literature, History and Geography;—Lectures on Greek Antiquities and Art. *Latin*,—Tacitus—Satires,—Roman Literature (Lectures). *English*,—History of English Literature. *Philosophy*,—Psychology and the History of Philosophy. *Philology*,—Linguistics. ELECTIVE STUDIES.—*Mathematics*,—The General Theory of Equations, the Modern Geometry, the Differential and Integral Calculus. *Science*,—Analytical Chemistry, Geology and Mineralogy. *Literature*,—Later English and American Authors. *Modern Languages*,—French, German, &c. *Æsthetics*,—Lectures on the Fine Arts.

SENIOR YEAR.

Greek,—Aristophanes—with Collaterals; Lectures on Greek Literature. *Latin*,—Comedy—Terence and Plautus. *Philosophy*,—Ethics and Ontology. *Political Science*. *The American Constitution*. ELECTIVE STUDIES.—*Science*—Analytical Chemistry, Dynamical Physics, Botany. *Literature*,—Elements of Criticism. *Modern Languages*,—French, German, &c. *Mathematics*,—Practical Astronomy.

THE COURSE IN SCIENCE—(Scientific.)

JUNIOR YEAR.

Science,—Analytical Chemistry, Geology and Mineralogy. *Mathematics*,—The General Theory of Equations, the Modern Geometry, the Differential and Integral Calculus. ELECTIVE STUDIES.—*Literature*,—History of English Literature. *Philosophy*,—Psychology and the History of Philosophy. *Latin*,—Tacitus and Collaterals. *Philology*,—Linguistics. *Æsthetics*,—Lectures on the Fine Arts. *Modern Languages*,—French, German, &c.

SENIOR YEAR.

Science,—Analytical Chemistry, Dynamical Physics, Botany. *Mathematics*—Practical Astronomy. *Political Science*. *The American Constitution*. ELECTIVE STUDIES,—*Philosophy*—Ethics and Ontology. *Literature*,—Elements of Criticism. *Latin*,—Terence and Plautus. *Modern Languages*,—French, German, &c.

THE COURSE IN LITERATURE—(Literary.)

JUNIOR YEAR.

Literature,—History of English Literature. *Mathematics*,—The General Theory of Equations and the Modern Geometry. *Philosophy*,—Psychology and the History of Philosophy. *Philology*,—Linguistics. *Æsthetics*,—Lectures on the Fine Arts. ELECTIVE STUDIES.—*Science*,—Analytical Chemistry, Geology and Mineralogy. *Mathematics*,—Differential and Integral Calculus. *Modern Languages*,—French, German, &c. *Latin*,—Tacitus and Collaterals,—Satires. *Literature*,—History of Greek and Roman Literature.

SENIOR YEAR.

Literature,—Elements of Criticism. *Philosophy*,—Ethics and Ontology. *History*,—History of Free Institutions. *Political Science*. *The American Constitution*. ELECTIVE STUDIES. Analytical Chemistry, Dynamical Physics, Botany. *Mathematics*,—Practical Astronomy. *Latin*,—Terence and Plautus. *Modern Languages*,—French, German, &c.

Synopsis of Studies in the College of Science, Literature and the Arts.

COURSES IN	FIRST TERM.	SECOND TERM.	THIRD TERM.	
JUNIOR YEAR.	Arts.	1. Greek. 2. English Literature. 3. { Mathematics, Science, Mod. Languages.	1. Latin. 2. Psychology. 3. { Mathematics, Science, Eng. Literature, Mod. Language.	1. Greek and Latin. 2. Linguistics. 3. { Mathematics, Science, Æsthetics.
	Science.	1. Science. 2. Mathematics. 3. { Science, Mod. Languages,	1. Science. 2. Mathematics. 3. { Psychology, Eng. Literature, Mod. Languages, Latin.	1. Science. 2. Mathematics 3. { Linguistics, Æsthetics.
	Literature.	1. English Literature. 2. Mathematics. 3. { Science, Mod. Languages.	1. English Literature. 2. Psychology. 3. { Mathematics, Science, Mod. Languages, Latin.	1. Linguistics. 2. Æsthetics. 3. { Mathematics, Science, Greek and Latin (lectures).
SENIOR YEAR.	Arts.	1. Latin. 2. Ethics. { Science. Pract. Astronomy, 3. { Mod. Languages, Criticism	1. Greek. 2. Political Science. 3. American Constitution.	No stated Exercises; Candidates for degrees prepare Orations and Theses.
	Science.	1. Science. 2. Practical Astronomy. 3. { Ethics. Criticism, Mod. Languages, Criticism.	1. Science. 2. Political Science. 3. American Constitution.	
	Literature.	1. Elements of Criticism. 2. Ethics. { Science, Prac. Astronmy, 3. { Mod. Languages, Latin.	1. History of Free Institutions. 2. Political Science. 3. American Constitution.	

Applicants for admission who bring final certificates from the COLLEGIATE DEPARTMENT are admitted without further examination.

Other applicants must be at least 17 years of age, and must pass examinations in all the studies of those courses of the Collegiate Department, corresponding to those they propose entering upon, respectively, in this College. *Real Equivalents* only are accepted.

In each course there are two required studies. The third is selected by the student from the respective range of elections. No student may have fewer than three studies unless by permission of the Faculty of this College. Exercises in Writing and Speaking are required throughout, in all the courses.

Admitted applicants must declare in writing their choice of courses of study within three days after the beginning of the First Term.

The following degrees appropriate to the respective courses of study are conferred by the Board of Regents upon recommendation of the Faculty of this College:

1. THE DEGREE OF BACHELOR OF ARTS.
2. THE DEGREE OF BACHELOR OF SCIENCE.
3. THE DEGREE OF BACHELOR OF LITERATURE.

The merit of students is ascertained from Examinations only.

THE COLLEGE OF AGRICULTURE.

The course of study extends over a period of two years. The Terms and Recesses are the same as those of the Collegiate Department.

Applicants for admission who bring a Final Certificate for the Scientific Course of the COLLEGIATE DEPARTMENT, are admitted without further examination.

Other applicants must pass examinations in all the studies of the Scientific Course.

Students who complete a course of study to the satisfaction of the Faculty of this College, receive the degree of BACHELOR OF AGRICULTURE, *but ANY PERSON not a candidate for this degree, competent to receive the instruction, may attend the classes and undergo examination in any subject, and if successful, will receive a certificate to that effect.*

The merit of students in this College is ascertained from examinations only.

SYNOPSIS OF STUDIES.

<i>Departments.</i>	<i>Associated Subjects.</i>	<i>Practical Applications.</i>
CHEMISTRY,	{ GEOLOGY, MINERALOGY,	Nature and origin of soils and their Analysis—Chemistry of Animal ^s and Vegetables—Fertilizers—Food—Processes of Dairy, Sugar Factory, &c., &c.
BOTANY,		Horticulture and Pomology, Arboriculture—Improvement of Varieties—Cereals—Textile Plants—Weeds.
ZOOLOGY,	{ ANATOMY, ENTOMOLOGY, ORNITHOLOGY,	Stock-Breeding—Veterinary Science—Insects Injurious to Vegetation—Poultry—Pisciculture, &c.
PHYSICS,	{ METEOROLOGY, CLIMATOLOGY,	Effects of Light, Heat and Electricity, Theory of Winds and Storms, Acclimation of Plants, Animals, &c.
MECHANICS,	{ ENGINEERING, ARCHITECTURE,	Construction and Tests of Farm Implements and Machinery—Roads—Ditching—Fencing—Farm Buildings and Grounds, &c.
ECONOMICS,		General Theory and Practice of Agriculture --- Rent --- Wages---Accounts—Markets—Transportation.
JURISPRUDENCE	{ HISTORY AND LIT- ERATURE OF AGRICULTURE, &c.	Tenure of Lands—Laws of Highways—Taxation—Estrays—Contracts, &c.

THE COLLEGE OF THE MECHANIC ARTS.

THE COURSES OF INSTRUCTION

At present offered, are those in—1. CIVIL ENGINEERING; 2. MECHANICAL ENGINEERING.

Applicants who bring Final Certificates for the Scientific Course of the Collegiate Department are admitted without further examination. Other applicants must pass examinations in all the studies of the Scientific Course. Real equivalents are accepted.

The following degrees appropriate to the respective courses of study are conferred by the Board of Regents upon recommendation of the Faculty of this College:

1. THE DEGREE OF CIVIL ENGINEER.
2. THE DEGREE OF MECHANICAL ENGINEER.

The merit of students is ascertained from examinations only.

THE COURSE IN CIVIL ENGINEERING.

JUNIOR YEAR.

FIRST TERM.—*Geodesy*.—Theory, Adjustment and Use of Instruments. Farm Surveying; Levelling; Topographical Surveying. *Drawing*.—Elements of Topographical Drawing; Maps of Farm Surveys; Structure Drawing. *Mathematics*.—General Theory of Equations; Differential Calculus. *Chemistry*.—Qualitative Analysis. ELECTIVE STUDIES.—English Literature; Modern Languages.

SECOND TERM.—*Stereotomy*.—Shades, Shadows, and Perspective with Drawing. *Drawing*.—Maps of Topographical Surveys; Machine Drawing. *Cinematics*.—Elements of Machine Construction. *Mathematics*.—Integral Calculus. *Astronomy*.—Determination of Time, Latitude and Longitude. *Chemistry*.—Determinative Mineralogy; Blowpipe Analysis. ELECTIVE STUDIES.—Psychology; English Literature; and Modern Languages.

THIRD TERM.—*Geodesy*.—Triangular Surveying; Hydrographical Surveying. *Drawing*.—Maps of Hydrographical Surveys; Visits to and Sketches of Machinery and Structures. *Analytical Mechanics*.—Solids and Fluids. *Natural Science*.—Geology and Mineralogy. ELECTIVE STUDIES.—Linguistics; Lectures on the Fine Arts.

SENIOR YEAR.

FIRST TERM.—*Engineering*.—Theory of Roads and Railroads; Preliminary Survey and Final Location of a Railroad. *Drawing*.—Structures. *Stereotomy*.—Constructions in Stone Cutting, &c. *Analytical Mechanics*.—Solids and Fluids.—*Applied Mechanics*.—Friction and other Resistances; Stress and Strength of Materials. *Machines*.—General Theory of Machines. ELECTIVE STUDIES.—Ethics; Criticism; Modern Languages.

SECOND TERM.—*Applied Mechanics*.—Fluids; Practical Hydraulics; Water Engineering, Canals, Water Supply and Distribution, Irrigation, Drainage, Sewerage; Practical Pneumatics, Compressed Air. *Constructions*.—Stability of Structures; Building Materials; Foundations; Superstructures of wood, of stone, and of iron; Bridge Engineering. *Machines*.—Theory of Prime Movers. *Draeing*.—Plans, Profiles and Sections of Railroad Surveys; Structures; Bridges and other Engineering Structures.—Specifications, Estimates, Contracts, &c. ELECTIVE STUDIES.—Political Science; The American Constitution.

THIRD TERM.—*Engineering*.—Staking out for Construction; Railway Management; Designs for, and Reviews of Special Engineering and Architectural Works. Theses. Final Examination.

THE COURSE IN MECHANICAL ENGINEERING.

JUNIOR YEAR.

The studies of this year are the same as those of the Junior Year of the Civil Engineering Course, without the Astronomy, with less Geodesy and Topographical Drawing and with a more extended course in Structural and Machine Drawing.

SENIOR YEAR.

FIRST TERM.—*Machines*.—General Theory of Machines; their Location, Construction, Efficiency. *Mechanics*.—Statics and Dynamics of Solids and Fluids.—*Physics*.—Thermodynamics; Electrodynamics.—*Applied Mechanics*.—Friction and other Resistances; Stress and Strength of Materials.—*Drawing*.—Machines and Structures; Pattern Making. ELECTIVE STUDIES.—Ethics; Criticism; Modern Languages.

SECOND TERM.—*Machines*.—Theory of Prime Movers, Steam Engines, Water Wheels, Windmills.—*Applied Mechanics*.—Practical Hydraulics; Pumping Engines; Practical Pneumatics; Use of Compressed Air. *Drawing*.—Plans, Elevations, Sections and Working Drawings of Machinery and Structures; Specifications. *Constructions*.—Stability of Structures; Building Materials; Foundations, Superstructures of wood, of stone, of iron. ELECTIVE STUDIES.—Political Science; The American Constitution.

THIRD TERM.—Designs for, and Reviews of Machines for special purposes.—Theses.—Final Examination.

THE GEOLOGICAL AND NATURAL HISTORY SURVEYS OF THE STATE OF MINNESOTA.

By an act of the Legislature (see page 30), approved February 24, 1872, the surveys were entrusted to the University.

The appropriation for the work being at present so small, the Board of Regents are obliged to proceed with moderation. They confidently believe that a coming Legislature will gladly place a larger sum at their disposal for the prosecution of an enterprise of so great importance to the State.

They invite the friendly interest and co-operation of the scientific men of the State and will endeavor at length to reciprocate favors from any source. Any publications or specimens which may be received will be carefully catalogued and corresponding returns will be made as soon and as far as possible. The *Geological Survey* is already begun. The *Natural History* and other investigations will be begun in due time.

Communications relating to the GEOLOGICAL SURVEY should be addressed
Professor N. H. WINCHELL,
University of Minnesota,
St. Anthony's Falls, Minn.

GENERAL INFORMATION.

THE LIBRARY.

The number of volumes now on the shelves is about 6,000 Contributions, especially of pamphlets, are desired. An alphabetical catalogue of authors has been printed, complete to March 1, 1872.

A READING ROOM

to be well supplied with literary, scientific, and philosophical journals will be opened early in January, 1873.

COLLECTIONS.

Valuable collections of Corals, Shells, Sponges, Minerals and Fossils have already been made. Contributions are solicited.

The U. S. Commissioner of Patents has furnished the Institution with nearly 500 models from the Patent Office, all of which are interesting and many of them useful as means of illustrations in the Physical Sciences.

The Ordnance Bureau of the War Department has furnished 120 Springfield rifles, and as many sets of accoutrements for use of the military corps.

[CHEMISTRY, PHYSICS AND DRAWING &C.

Arrangements have been made for a limited number of Analytical Students. A class is already at work.

The equipment of Physical Apparatus and Engineering Instruments is not extensive, but having been judiciously selected is very serviceable.

The Drawing Room is provided with the essential fittings.

The location of the University, in the near neighborhood of the great and rapidly extending Manufacturing Industries of the cities of St. Paul and Minneapolis, renders it a desirable resort for students of Mechanical Science.

SOCIETIES.

The following Literary Societies recognized and authorized by the General Faculty, are in successful operation:

1. The Delta Sigma Society.
2. The Hermean Society.
3. The Zenobian Society.
4. The Students Christian Association.
5. The Philologian Society.

BOARDING.

Table board in the best families is now \$4.00 a week. A limited number of young men are accommodated with rooms in the University building, furnished with bedstead and mattress, wash-stand, table and stove, at \$3.00 per term. A Boarding Club formed by them is allowed the use of some basement rooms and some furniture. The cost to each member has not exceeded \$2.00 per week.

A well-known friend of the University has erected at his own cost the first of a "set" of buildings designed for the boarding and lodging of male students. The rooms, eight in number, are let at a moderate rent, and arrangements can be made for club boarding. Application for these rooms should be addressed to the Hon. J. S. Pillsbury, Minneapolis, Minn.

TUITION—Free in all Departments.

The only University charge is the Incidentals Fee: First Term, \$2.00; Second Term, \$3.00; Third Term, \$1.00.

COMMENCEMENT.

The First Annual Commencement of the University will take place June 19th, 1873.

CATALOGUE.

The First Annual Calendar of the University will be issued during the Third Term of the current University year 1872-'73.

HOW TO ENTER THE UNIVERSITY.

1. Candidates procure personally or by mail, from the President's office a blank form of APPLICATION and have it properly filled and signed.
2. On the appointed day and hour they present themselves with their applications in the Assembly Hall for examination. Each receives a number, by which alone he is known to the Examining Professors.
3. After the examinations, the numbers of the successful candidates are announced.
4. At the appointed hour these assemble at the President's office for Registry. On payment of the charge for incidental expenses for one term each candidate whose papers are satisfactory, is registered as a member of the University, and receives a STUDENT'S CARD.

EXTRA STUDIES.

Persons so desiring can, by special arrangements with professors, be furnished instruction in the following extra studies: Sanscrit, Arabic and Hebrew, Spanish and Italian, Swedish and Norwegian, and the Modern Greek.

LOCATION.

The University of Minnesota is situated in the East Division of the city of Minneapolis, upon the Mississippi, eight miles above Saint Paul. The post-office still remains, SAINT ANTHONY'S FALLS, MINN.

Minneapolis is accessible by or over the following railways:

The St. Paul & Pacific,
The Minneapolis & Duluth,
The Minneapolis & St. Louis,
The St. Paul & Milwaukee,

The St. Paul & Chicago,
The St. Paul & Sioux City,
The West Wisconsin.

THE ALMANAC.

This serial although published with the consent and approval of the Board of Regents, is nevertheless not an official document. The Editor alone is responsible for its contents.

THE UNITED STATES GOVERNMENT.

ULYSSES S. GRANT, of Illinois..... President.
 SCHUYLER COLFAX, of Indiana..... Vice President.

THE CABINET.

HAMILTON FISH, of New York..... Secretary of State.
 GEORGE S. BOUTWELL, of Massachusetts..... Secretary of the Treasury.
 WILLIAM W. BELKNAP, of Iowa..... Secretary of War.
 GEORGE M. ROBESON, of New Jersey..... Secretary of the Navy.
 COLUMBUS DELANO, of Ohio..... Secretary of the Interior.
 GEORGE H. WILLIAMS, of Oregon..... Attorney General.
 JOHN A. J. CRESSWELL, of Maryland..... Postmaster General.

HEADS OF DEPARTMENT-BUREAUS.

J. W. DOUGLASS, of Pennsylvania..... Commissioner of Internal Revenue.
 MORTIMER D. LEGGETT, of Ohio..... Commissioner of Patents.
 JAMES H. BAKER, of Minnesota..... Commissioner of Pensions.
 FELIX R. BRUNOT, of Pennsylvania..... Commissioner of Indian Affairs.
 WILLIS DRUMMOND, of Iowa..... Commissioner of Public Lands.
 FREDERICK WATTS, of Pennsylvania..... Commissioner of Agriculture.
 JOHN EATON, Jr., of Tennessee..... Commissioner of Education.
 FRANCIS A. WALKER, of Massachusetts..... Superintendent of the Census.
 FRANCIS E. SPINNER, of New York..... Treasurer of the United States.
 JOHN JAY KNOX, of Minnesota..... Comptroller of the Currency.
 SAMUEL J. PHILLIPS, of North Carolina..... Solicitor General.

THE SUPREME COURT.

SALMON P. CHASE, of Ohio..... Chief Justice.
 SAMUEL NELSON, of New York..... Associate Justice.
 NATHAN CLIFFORD, of Maine..... " "
 NOAH H. SWAYNE, of Ohio..... " "
 SAMUEL F. MILLER, of Iowa..... " "
 DAVID DAVIS, of Illinois..... " "
 STEPHEN J. FIELD, of California..... " "
 WILLIAM STRONG, of Pennsylvania..... " "
 JOSEPH P. BRADLEY, of New Jersey..... " "
 JOHN WILLIAM WARREN, of Pennsylvania..... Reporter.

THE ARMY AND NAVY.

WILLIAM T. SHERMAN..... General of the Army.
 DAVID C. PORTER..... Admiral of the Navy.
 E. D. TOWNSEND, Brev. Maj. Gen..... Adjutant General.
 M. E. MEIGS, Brev. Maj. Gen..... Quartermaster General.
 A. A. HUMPHREYS, Brig. Gen..... Chief of Engineers.
 ALBERT J. MEYER, Brig. Gen..... Chief Signal Officer.
 B. F. SANDS, Commodore..... Superintendent of the Naval Observatory.
 Prof. J. H. C. COFFIN..... Superintendent of the Nautical Almanac.
 T. H. RUGER, Brev. Brig. Gen..... Superintendent of the Military Academy.
 JOHN L. WORDEN, Commodore..... Superintendent of the Naval Academy.

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Professor BENJAMIN PIERCE..... Superintendent of the Coast Survey.
 " J. E. HILGARD..... Assistant in charge of Office.
 " JOSEPH HENRY..... Director of the Smithsonian Institution.
 " A. R. SPOFFORD..... Librarian of Congress.

THE FORTY-SECOND CONGRESS.

March 4th, 1871, to March 4th, 1873.

Schuyler Colfax, of Indiana, *ex-officio*.....President of the Senate.
James G. Blaine, of Augusta, Maine.....Speaker of the House.

MINNESOTA DELEGATION.

Alexander Ramsey, William WindomSenators.
John T. Averill, Mark H. Dunnell.....Representatives.
H. B. Strait, Representative elect, 3d (new) dist., 43d Congress.

UNITED STATES COURTS FOR THE DISTRICT OF MINNESOTA.

DISTRICT COURT.

Rensselaer R. Nelson.....Judge.
Terms Begin.--First Monday of June, at.....Winona.
First Monday of October, at.....St. Paul.

CIRCUIT COURT.

Samuel F. Miller.....Associate Justice of the Supreme Court,
John F. Dillon.....Judge of the 8th Judicial District.
Rensselaer R. Nelson.....Judge of the U. S. District Court.
Terms Begin.--On the 3d Monday of June and 2d Monday of Dec. at St. Paul.
C. K. Davis, St. Paul.....U. S. District Attorney.
Augustus Armstrong, Albert LeaU. S. Marshal.

U. S. LAND OFFICES AND OFFICERS IN MINNESOTA.

Chas. T. Brown, St. Paul.....Surveyor General.
Geo. Watson.....Chief Clerk.

NO. DIST.	REGISTER.	RECEIVER.	OFFICES.
1	E. P. Freeman.....	J. B. Wakefield.....	Jackson.
2	Abner Tibbets.....	J. C. Rudolph.....	New Elm.
3	B. P. Smith.....	W. H. Kelley.....	Redwood Falls.
4	J. M. Waldron.....	J. C. Braçen.....	Litchfield.
5	H. L. Gordon.....	T. C. McClure.....	St. Cloud.
6	L. K. Acker.....	J. H. Van Dyke.....	Alexandria.
7	W. A. Newton.....	R. Reynolds.....	Oak Lake.
8	J. P. Owens.....	Oscar Roes.....	Taylor's Falls.
9	Ansel Smith.....	W. H. Feller.....	Duluth.

DESCRIPTION OF THE LAND DISTRICTS.

1. A district 30 miles wide, east and west through the State, along the south line.
2. A district 30 miles wide, extending east and west immediately north of the last named.
3. A district 30 miles wide north of above.
4. A district 30 miles wide north of above.
5. A district 24 miles wide, extending to the west line of the State, north of 3d, and also extending through the centre of the State northward, to the north boundary line.
6. A district along the Red River, north of west part of above, extending to Tp. 136.
7. A district north of above extending to northern boundary.
8. A district lying between district No. 5 and the St. Croix River.
9. The remainder of the State.

CLASSES OF PUBLIC LANDS.

There are three classes of public lands—

1st. All even-numbered sections outside the 10-mile limits of the lines of the several land-grant railroads in the State. These are held at \$1.25 per acre.

2d. All lands comprising the even-numbered sections within the 10-mile limits of railroad grants, which are \$2.50 per acre.

3d. The lands formerly reserved by the Sioux Indians, which, until offered for sale, are subject to pre-emption by actual settlers at their appraised value.

The two first may be had at all the land offices, and the third at the New Ulm and Litchfield offices only.

DEPARTMENT OF DAKOTA.

*Major General W. S. Hancock, U. S. A., Commanding.
HEADQUARTERS.....ST. PAUL.

TROOPS.

CAVALRY. INFANTRY.
Co's F, G, H, and L, 2d Regiment, | 6th, 7th, 8th, 15 h, 20th and 22d Regiments

PERSONAL STAFF.

Captain G. W. Mitchell, 5th Infantry, Aide-de-Camp.
Capt. John S. Wharton, 19th Infantry, Aide-de-Camp.
2d Lieutenant G. S. L. Ward, 22d Infantry, Aide-de-Camp.

DEPARTMENT STAFF.

Major O. D. Greene, Adj. General's Dep't, Assistant Adjutant General.
Major W. H. Lewis, 7th Infantry, Acting Assistant Inspector General.
Major DeWitt Clinton, Judge Advocate, U. S. A., Judge Advocate.
Lieutenant Colonel H. C. Ransom, Chief Quartermaster.
Capt. J. H. Gilman, Chief Commissary of Subsistence.
Surgeon J. F. Head, U. S. A., Medical Director and Attending Surgeon.
Major A. H. Seward, Chief Paymaster.

ON SPECIAL DUTY.

Captain Wm. Ludlow, Corps of Engineers, U. S. A., Engineer Officer.

DISTRICT OF MINNESOTA.

STATION.	COMMANDING OFFICER.	TROOPS.
Fort Snelling, Minn.....	Colonel George Sykes, 20th Infantry and Commanding District.	Headquarters, and Company "C," 20th Infantry.
Fort Ripley, Minn.....	Captain W. S. McCaskey, 20th Infantry.	Company "G," 20th Infantry.
Fort Abercrombie, D. T.	Captain J. H. Patterson, 20th Infantry.	Company "D," 20th Infantry, and 15 Indian scouts.
Fort Wadsworth, D. T....	Major J. E. Yard, 20th Infantry	Companies "B" and "F," 20th Infantry, and 18 Indian scouts.
Fort Cross, D. T.....	Captain J. C. Eaves, 20th Infantry.	Company "B," 20th Infantry, and 12 Indian scouts.
Fort Totten, D. T.....	Lieut. Col. L. C. Hunt, 20th Infantry.	Companies "E" and "H," 20th Infantry, and 15 Indian scouts
Fort Pembina, D. T.....	Captain Lloyd Wheaton, 20th Infantry.	Companies "I" and "K," 20th Infantry.

*To be relieved by Maj. Gen. A. S. Terry.

THE STATE GOVERNMENT.

THE EXECUTIVE.

HORACE AUSTIN, of Nicollet County.....	GOVERNOR.
WM. H. YALE, of Winona County.....	Lieut. Governor.
S. P. JENNISON, of Goodhue County.....	Secretary of State.
WM. SEEGER, of Ramsey County.....	Treasurer.
F. R. E. CORNELL, of Hennepin County.....	Attorney-General.
O. P. WHITCOMB, of Olmsted County.....	Auditor.
A. J. EDGERTON, of Dodge County.....	Railway Commissioner.
PENNOCK PUSEY, of Ramsey County.....	Insurance Commissioner.
HORACE B. WILSON, of Goodhue County.....	Sup't of Public Instruction.
A. R. MCGILL, of Nicollet County.....	Private Secretary to Governor.
M. D. FLOWER, of Blue Earth County.....	Adjutant General.
M. B. SMITH, (Mrs.) of Hennepin County.....	State Librarian.

THE SUPREME COURT.

CHRISTOPHER G. RIPLEY, of Fillmore County.....	Chief Justice.
S. J. R. McMILLAN, of Washington County.....	Associate Justice.
JOHN M. BERRY, of Rice County.....	“ “

Terms begin on the 1st Tuesdays of April and October, at St. Paul.

SHERWOOD HOUGH, of St. Paul.....	Clerk.
WM. A. SPENCER, of St. Paul.....	Reporter.

THE DISTRICT COURTS.

Names of the Judges—Times and Places of Holding Courts.

1ST JUDICIAL DISTRICT.

JUDGE—F. M. CROSBY, of Hastings.
Dakota county, 2d Tuesday in January and 3d Tuesday in June, at Hastings.
Chisago county, 1st Tuesday in May, at Chisago City.
Pine county, 1st Tuesday in October, at Chengwatana.
Washington county, 1st Tuesday in June and 2d Tuesday in Nov., at Stillwater.
Goodhue county, 3d Tuesday in May, and 3d Tuesday in Dec., at Red Wing.
Kanabec county, attached to Pine county.

2D JUDICIAL DISTRICT.

JUDGE—WESTCOTT WILKIN, of St. Paul.
Ramsey county, 1st Tuesday in May, and 1st Tuesday in December, at St. Paul.
SPECIAL TERMS.—2d and 4th Saturdays in each month, except July and Aug.

3D JUDICIAL DISTRICT.

JUDGE—C. M. WATERMAN, of Winona.
Olmsted county, 1st Monday of March, and 1st Monday of October, at Rochester.
Winona county, 1st Monday of April, and 1st Monday of Sept., at Winona.
Wabasha county, 1st Tuesday after 1st Monday in June, and 1st Tuesday after 4th Monday in November, at Wabasha.

4TH JUDICIAL DISTRICT.

JUDGE—CHAS. E. VANDERBURGH, of Minneapolis.
Hennepin county, 1st Tuesday of May, and 3d Tuesday of Nov., at Minneapolis.
Anoka county, 3d Tuesday of December, at Anoka.
Wright county, 1st Tuesday of June, at Buffalo.
Meeker county, 2d Tuesday of September, at Litchfield.
Kandiyohi county, 3d Tuesday in September, at Willmar.
Isanti county, 1st Tuesday in October, at Cambridge.

5TH JUDICIAL DISTRICT.

JUDGE—SAMUEL LORD, of Mantorville.
Dodge county, 1st Monday in March, and 1st Tuesday of Sept., at Mantorville.
Steele county, 1st Tuesdays of June and December, at Owatonna.
Rice county, 1st Tuesdays of May and October, at Faribault.
Waseca county, 2d Tuesday of February, and 3d Tuesday of Oct., at Waseca.

6TH JUDICIAL DISTRICT.

JUDGE—FRANKLIN H. WAITE, of Mankato.

Blue Earth county, 1st Tuesday of Dec., and 3d Tuesday of May, at Mankato.
 Faribault county, 1st Tuesday of Jan. and 1st Tuesday of June, at Blue Earth City
 Martin county, 4th Tuesday in January, at Fairmount.
 Jackson county, 4th Tuesday in June, at Jackson.
 Watanwan county, 2d Tuesday of February, at Madelia.
 Rock county, } Attached to Jackson county.
 Nobles county, }
 Cottonwood county, }
 Murray county, } Attached to Watanwan county.
 Pipestone county, }

7TH JUDICIAL DISTRICT.

JUDGE—JAMES M. McKELVEY, of St. Cloud.

Stearns county, 2d Tuesday of June, and 1st Tuesday in December, at St. Cloud.
 Morrison county, 3d Tuesday in October, at Little Falls.
 Sherburne county, 2d Tuesday in June, at Elk River.
 Benton county, 4th Tuesday in November, at Sauk Rapids.
 Douglas county, 1st Tuesday in October, at Alexandria.
 Pope county, 2d Tuesday in October, at Glenwood.
 St. Louis county, 3d Tuesday in February, and 2d Tuesday in Aug., at Duluth.
 Mille Lacs county, last Tuesday in September, at Princeton.
 Carlton county, 1st Tuesday in August, at Thompson.
 Crow Wing county, 4th Tuesday in October, at Crow Wing.
 Becker county, 2d Tuesday of November, at Detroit.
 Otter Tail county, 3d Tuesday of November, at Otter Tail.
 Stevens county, 3d Tuesday of June, at ———
 Itasca county, } Attached to St. Louis county.
 Lake county, }
 Aiken county, }
 Cass county, } Attached to Morrison county.
 Wadena county, }
 Todd county, }
 Pembina county, }
 Polk county, } Attached to Douglas county.
 Clay county, }
 Grant county, }
 Wilkin county, }
 Traverse county, attached to Stevens county.

8TH JUDICIAL DISTRICT.

JUDGE—A. G. CHATFIELD, of Belle Plaine.

LeSueur county, 1st Monday in March, and 1st Monday in Sept., at LeSueur.
 Sibley county, 3d Monday in March, and 3d Monday in Sept., at Henderson.
 Carver county, 1st Monday in April, and 1st Monday in October at Chaska.
 Scott county, 1st Monday in June, and 1st Monday in December, at Shakopee.
 McLeod county, 3d Monday in June, and 3d Monday in December, at Glencoe.

9TH JUDICIAL DISTRICT.

JUDGE—M. G. HANSCOME, of St. Peter.

Nicollet county, 4d Tuesdays in May and November, at St. Peter.
 Brown county, 3d Tuesday in June, and 2d Tuesday in December, at New Ulm.
 Renville county, 1st Tuesday in September, at Beaver Falls.
 Redwood county, 2d Tuesday in September, at Redwood Falls.
 Lyon county, }
 Lac qui Parle county, } Attached to Redwood county.
 Yellow Medicine county, }
 Chippewa county, 2d Tuesday in December, at Montivideo.
 Lincoln county, attached to Renville county.

10TH JUDICIAL DISTRICT.

JUDGE—SHERMAN PAGE, of Austin.

Houston county, 1st Tuesday after 1st Monday in May, and 1st Tuesday after
 4th Monday in October, at Caledonia.
 Fillmore county, 1st Tuesday after 3d Monday in May, and 1st Tuesday after 2d
 Monday in November, at Preston.
 Mower county, 3d Mondays of March and September, at Austin.
 Freeborn county, 3d Mondays of June and November, at Albert Lea.

LEGISLATURE OF 1873.

No.	DISTRICTS.	SENATORS	REPRESENTATIVES.
1	Houston County.	Edward Thomson.	M. L. Cooper, P. H. Rosendahl, Posten Johnson, Aaron Beard.
2	Fillmore (East).	T. H. Everts.	Arne Arneson, Niles (carpenter), Horace Wheeler.
3	Fillmore (West).	Wm. Meighen.	T. B. Baldwin, H. M. Daniels, P. McCracken.
4	Mower.	A. K. Noble.	Ole O. Finhart, E. J. Simson.
5	Freeborn.	T. J. Johnsrud.	J. W. Devereaux, E. D. Rodger.
6	Fairbault.	E. H. Hutchins.	S. P. Childs, M. A. Hawks.
7	Winona (West).	S. S. Beman.	Collius Rice, C. W. Tresler.
8	Winona (East).	W. H. Stevens.	G. P. Wilson, J. P. Neville, H. A. Corey.
9	Olmsted (East).	Milo White.	W. L. Tibbetts, Marcus Wing.
10	Olmsted (West).	O. S. Porter.	T. B. Lindsey, M. C. Fuller.
11	Dodge.	H. H. Atherton.	J. N. Hanson, E. W. Wescott.
12	Steele.	Amos Cogswell.	W. W. Wilkins, A. Colquhoun.
13	Wasca.	W. G. Ward.	J. L. Sanferer, John Thompson.
14	Blue Earth.	John F. Meagher.	J. A. Reed, H. S. Howe, T. C. Charles, J. Pfaff, J. A. Peterson.
15	Wabashaw.	J. P. Wasto.	N. A. Gesner, F. S. VanDyke, F. L. Meachem, W. H. Campbell.
16	Goodhue in part.	L. F. Hubbard.	W. C. Williston, H. F. Armstrong.
17	Goodhue in part.	J. W. Peterson.	T. P. Kellett, G. K. Norsving, Arthur Flom.
18	Rice.	G. W. Batchelder.	O. Osmundson, E. Hobbs, S. C. Dunham, H. B. Hopkiss, A. Thomp-
19	Le Sueur.	F. Talbot.	Frank Becker, J. C. Swain, Lewis Stone. [son.]
20	Dakota.	R. J. Chewning.	E. E. Rich, P. Fewkin, J. L. Lewis, J. F. Dilley, D. C. Johnson.
21	Scott.	John L. Macdonald,	J. W. Scencerbox, Joseph Chadderdon.
22	Washington.	D. M. Sabin.	E. W. Durant, J. R. M. Gaskill, H. Haganin.
23	First, Second and Third Wards of St. Paul.	Edmund Rice	J. M. Rogers, Hubert H. Miller.
24	Fourth and Fifth Wards of St. Paul and Ramsey Co.	John Nicols.	George Benz, H. A. Castle, H. J. Brainerd.
25	Hennepin East, Anoka and Isanti.	J. S. Pillsbury.	Jas. McCann, Daniel Anderson.
26	Hennepin in part.	Levi Butler.	C. B. Terrell, L. Fletcher, C. H. Clarke, C. F. Adams.
27	Hennepin in part.	R. B. Langdon.	A. R. Hall, L. Demenles, Matt. C. Comerford.
28	Chisago, Phic, Kanabec and Aiken.	J. Lindall.	Joel G. Ryder.
29	Lake, Itasca, Carlton, Cass and St. Louis.	C. H. Graves.	E. G. Swanstrom.
30	Sherburne, Benton, Morrison, Crow Wing and Millelac.	John O. Haven.	T. P. Knappan.
31	Stearns.	H. C. Burbank.	H. Krebs, B. Pirz, R. Holding, A. Barto.
32	Wright.	G. A. Ruckold.	T. G. Mealey, J. E. Jenks.
33	Carver.	L. L. Baxter.	F. E. Du Toit, Chas. Bachman, Mathew Kelly.
34	Nicollet and Renville.	M. B. Stone.	E. St. Julian Cox, Francis Bassen, D. M. Hall.
35	Meeke.	C. E. Cuts.	W. H. Greenleaf.
36	Sibley and McLeod.	Henry Poehler.	Hamilton Beatty, H. A. Child, A. M. Schuell.
37	Redwood, Brown and Lyon.	J. Honnor.	J. W. Blake, C. C. Brandt.
38	Martin, Jackson, Nobles, Rock, Watonwan, Cotton-wood, Murray and Pipestone.	W. D. Rice.	E. Berry, Stephen Miller, J. W. Seager.
39	Douglas, Pope, Stevens, Grant and Big Stone.	J. G. Whittemore.	A. G. Schilberg, G. W. Ruckwell.
40	Kandiyohi, Swift and Chippewa.	Andrew Railson.	G. W. Frink.
41	Ottertail, Wilkin, Wadena, Todd, Beltrami, Folk, Clay, Traverse, Becker and Pembina.	J. G. Nelson.	J. A. Biewer, Wm. Felton.

STATE INSTITUTIONS.

I. EDUCATIONAL.

1. THE UNIVERSITY OF MINNESOTA. See p. 33.
2. THE NORMAL SCHOOLS.

THE STATE NORMAL BOARD.

DR. W. W. SWEENEY, Red Wing.....1st Judicial District.
 REV. S. Y. McMASTERS, D. D., President, St. Paul.....2d Judicial District.
 HON. THOMAS SIMPSON, Winona3d Judicial District.
 HON. S. R. THAYER, Minneapolis.....4th Judicial District.
 HON. SAMUEL BATCHELDER, Albert Lea..... 5th Judicial District.
 HON. DANIEL BUCK, Mankato.....6th Judicial District.
 DR. M. C. TOLMAN, St. Cloud.....7th Judicial District.
 HON. H. B. WILSON, State Supt. Pub. Instruction, *ex-officio*
 Member and Secretary.....St. Paul.
 5th, 9th and 10th Judicial Districts, no members.

THE FIRST STATE NORMAL SCHOOL, AT WINONA.

PRINCIPAL—WM. F. PHELPS, M. A.

PRUDENTIAL COMMITTEE.—HON. THOS. SIMPSON, Chairman; E. S. YOUMANS; JOHN A. MATTHEWS; L. C. PORTER, Treasurer.

THE SECOND STATE NORMAL SCHOOL, AT MANKATO.

PRINCIPAL—JULIA A. SEARS.

PRUDENTIAL COMMITTEE.—HON. DANIEL BUCK, Chairman; CLARK KAYSER; JOHN H. RAY; GEO. W. AUSTIN, Treasurer.

THE THIRD STATE NORMAL SCHOOL, AT ST. CLOUD.

PRINCIPAL—IRA MOORE.

PRUDENTIAL COMMITTEE.—M. D. TOLMAN, M. D., Chairman; THOS. C. McCLURE; OSCAR TAYLOR; J. G. SMITH, Treasurer.

CALENDAR OF THE NORMAL SCHOOLS FOR 1873.—Winter Term begins January 15th, 1873; ends May 19th. Vacation, June 3d to August 18th, 1873. Fall Term, August 19th to December 22d, 1873.

The Second General State Teachers' Normal Institute meets at Mankato, May 20, 1873, and continues two weeks. The Faculties of the three Normal Schools are the instructors.

COUNTY SUPERINTENDENTS.

COUNTIES.	SUPERINTENDENTS.	P. O. ADDRESS.
Anoka	Rev. J. B. Tuttle.	Anoka.
Becker	F. B. Chapin.	Detroit City.
Benton	Rev. Sherman Hall.	Sank Rapids.
Blue Earth	Erastus C. Payne.	Mankato.
Brown	Ed. J. Collins.	Leavenworth.
Carlton	William Shaw.	Thompson.
Carver	J. Thomas Kerker.	Chaska.
Cass	Chas. A. Ruffee, (Co. Auditor).	Leech Lake.
Chippewa	Joseph D. Baker.	Montevideo.
Chisago	V. D. Eddy.	Taylor's Falls.
Clay	F. J. Burnham.	Glyndon.
Cottonwood	H. M. McGaughy.	Windom.
Crow Wing	James S. Campbell.	Brainerd.
Dakota	Philip Crowley.	West St. Paul.
Dodge	A. M. Church.	Kasson.
Douglas	Smith Bloomfield.	Alexandria.
Faribault	R. W. Richards.	Blue Earth City.
Filmore	Rev. D. L. Kiehle.	Preston.
Freeborn	Henry Thurston.	Shell Rock City.
Goodhue	Rev. J. W. Hancock.	Red Wing.
Grant	O. W. Olson.	Evansville.
Hennepin	Charles Hoag.	Minneapolis.
Houston	Dr. J. B. Le Blond.	Brownsville.
Isanti	Rev. Richard Walker.	Spencer Brook.
Jackson	E. L. Brownell.	Jackson.
Kanabec	Benjamin Kortou.	Brunswick.
Kandiyohi	J. H. Gates.	Harrison.
Lake	Christian Wieland.	Beaver Bay.
Lac Qui Parle	Eli B. Miller.	Montevideo, (Chippewa Co)
Le Sueur	M. R. Everett.	Le Sueur.
Lyon	Rev. Ransom Wait.	Lynd.
McLeod	W. W. Pendergast.	Hutchinson.
Martin	Rev. F. W. Morse.	Tenhassen.
Meeker	H. L. Wadsworth.	Litchfield.
Mille Lac	John A. Stovell.	Princeton.
Morrison	Lyman W. Aver.	Belle Prairie.
Mower	Hon. A. A. Harwood.	Anstin.
Murray	J. E. Cutter.	Lake Shetek.
Nicollet	B. H. Randall.	St. Peter.
Nobles	T. C. Bell.	Worthington.
Olmsted	Sanford Niles.	Rochester.
Otter Tail	N. H. Chittenden.	Fergus Falls.
Pine	Morton Bryan.	Pine City.
Pope	Henry G. Rising.	Glenwood.
Ramsey	D. A. J. Baker.	Saint Paul.
Redwood	Dr. W. D. Fling.	Redwood Falls.
Benyille	Carter H. Drew.	Beaver Falls.
Rice	George N. Baxter.	Faribault.
Rock	J. Hart Loomis.	Luzerne.
St. Louis	Jerome Merritt.	Oneota.
Scott	Patrick O. Flynn.	Cedar Lake.
Sherburne	P. A. Sinclair.	Elk River.
Sibley	Thomas Boland.	Henderson.
Sicarus	Bartholomew Pirt.	Torah.
Steele	Rev. Geo. C. Tanner.	Owatonna.
Stevens	E. M. Richardson.	Morris.
Swift	A. W. Lathrop.	Benson.
Todd	H. F. Lashier.	Ssuk Centre.
Wabasha	T. A. Thompson.	Plainview.
Waseca	Henry G. Mooher.	Waseca.
Washington	Alexander Oldham.	Stillwater.
Watonwan	Thomas Rutledge.	Madelia.
Wilkin	J. D. Boyer.	Breckenridge.
Winona	Rev. David Burt.	Winona.
Wright	J. F. Lewis.	Monticello.
Yellow Medicine	J. A. White.	Yellow Medicine City.

SUPERINTENDENTS OF CITY SCHOOLS.

G. M. Gage.....	St. Paul.	H. L. Strong.....	Austin.
O. V. Tousley.....	Minneapolis, W. D.	L. Wright.....	Chatfield.
F. W. Dodge.....	Winona.	D. D. Webster.....	Mantorville.
E. W. B. Harvey.....	Minneapolis, E. D.	J. McNaughton.....	Northfield.
O. Whitman.....	Red Wing.	G. H. Parker.....	Plainview.
H. P. Tukey.....	Mankato.	W. H. Palmer.....	Preston.
W. G. Pratt.....	St. Peter.	A. L. Fisk.....	Faribault.
Wm. Gorrie.....	Stillwater.	J. Beckley.....	Rushford.
D. W. Sprague.....	St. Cloud.	J. R. Richards.....	St. Charles.
C. S. Campbell.....	Hastings.	M. B. Foster.....	Wabasha.
S. L. Sayles.....	Lake City.	W. H. Hatch.....	Duluth.
C. H. Roberts.....	Rochester.	S. W. Bennett.....	Henderson.
W. M. Lawrence.....	Owatonna.	W. W. Pendergast.....	Hutchinson.
R. B. Carville.....	Anoka.		

PRINCIPALS OF HIGH AND GRADED SCHOOLS.

B. F. Wright.....	St. Paul.	J. C. Carpenter.....	Farmington.
C. W. Hyde.....	Shakopee.	M. Edgerton.....	Reed's Landing.
C. W. Porter.....	Blue Earth City.	Miss M. M. Reynolds,	Cannon Falls.
Wm. Benson.....	Carver.	J. C. Chase.....	Monticello.
Geo. Mix.....	Chaska.	E. P. Bartlett.....	Spring Valley.
W. O. Wild.....	Saratoga.	Benj. Darby.....	Pine Island.
F. Kittridge.....	Waseca.	John P. Burd.....	Winnebago City.
Miss J. Smedley.....	LeSueur.	Mrs. E. Burritt.....	Wells.
Wm. Hoy.....	Kasson.	C. W. Levens.....	Albert Lea.
J. A. Ross.....	Princeton.		

PUBLIC SCHOOL STATISTICS FOR THE YEAR ENDING SEPT. 30, 1872.

SCHOOL LANDS—Whole number of acres set apart (estimated).....	2,951,111.00
Whole number of acres appraised.....	601,458.78
Whole number of acres sold.....	413,264.14
SCHOOL FUND—Total productive fund.....	\$2,773,098.11
Income from productive fund, 1871.....	172,436.00
Income from tax on districts.....	631,459.31
Paid for building and furnishing houses and for lots.....	286,997.94
Paid for Teachers' wages.....	547,948.09
Paid for other purposes.....	161,990.05
Total expenditures.....	990,936.08
Unexpended in District Treasuries.....	148,766.68
March apportionment (per person, 20 cents).....	33,839.20
October apportionment (per person, 76 cents).....	123,434.60
SCHOOL DISTRICTS—Whole number.....	2,993
Whole number reporting.....	2,836
SCHOOL HOUSES—Whole number.....	2,470
Value of same.....	\$1,783,326.00
Number built during the year.....	229
Value of same.....	\$150,155.62
SCHOLARS—Whole number of school age.....	168,680
Whole number enrolled—Males, 63,369; females, 59,983.....	123,342
Per cent. of attendance (Public Schools).....	.67
TEACHERS—Whole number employed—Males, 1,636; females, 3,056.....	
Average wages of males.....	Winter, \$36.84; Summer, \$38.85
Average wages for females.....	Winter, \$26.82; Summer, \$33.22

II. ELEEMOSYNARY, &c.

1. THE HOSPITAL FOR THE INSANE, AT ST. PETER.

Superintendent.....Cyrus K. Bartlett, M. D.
 Assistant Physician.....Jacob E. Bowers, M. D.
 Steward.....George W. Dryer.
 Trustees—C. T. Brown, President; Rev. A. H. Kerr, Secretary; L. Fletcher, Reuben Butters, H. B. Strait, Wm. Schimnael, Wm. S. Lincoln.

2. THE INSTITUTION FOR THE DEAF AND DUMB AND THE BLIND, AT FARIBAULT.

Superintendent.....J. L. Noyes, A. M.
 Directors—H. E. Barron, President; R. A. Mott, Secretary; Geo. M. Gilmore, Hudson Wilson, Horace Thompson, the Governor and Superintendent of Public Instruction, *ex-officio*.

The Institution is a *free school* to the Deaf and Dumb and Blind of Minnesota, between the ages of 10 and 25. Term begins on the 2d Wednesday in September and continues *forty* weeks.

3. THE STATE REFORM SCHOOL, AT ST. PAUL.

Superintendent.....Rev. J. G. Reiheldaffer, D. D.
 Managers—D. W. Ingersoll, President; S. R. J. McMillan, Geo. L. Otis, C. H. Pettit.

4. THE STATE PRISON, AT STILLWATER.

Warden.....Henry A. Jackman
 Inspectors.....J. R. M. Gaskill, E. G. Butts, D. W. Armstrong
 Physician.....J. K. Reiner, M. D.
 Chaplain.....Rev. Wm. Weld.

5. THE SOLDIERS' ORPHANS' HOME.

Superintendent.....Maj. O. B. Gould, Winona.
 TRUSTEES.—Col. H. G. Hicks, Minneapolis, President; Gen. M. D. Flower, St. Paul, Secretary; Hon. Ara B. Baron; Capt. Henry A. Castle; Capt. J. E. West, St. Paul; Maj. E. C. Saunders.

6. THE STATE BOARD OF HEALTH.

A. B. Stuart, M. D. Winona.....President.
 Charles N. Hewitt, M. D. Red Wing.....Secretary.
 D. W. Hand, M. D.....St. Paul.
 N. B. Hill, M. D.....Minneapolis.
 A. W. Daniels, M. D.....St. Peter.
 Vespasian Smith, M. D.....Duluth.
 G. D. Winch, M. D.....Blue Earth City.

By request of the Board of Regents, the State Board of Health cause a course of lectures upon Public Health to be given before the University during the winter term. The Secretary has been selected to deliver the course this year.

III. PROFESSIONAL, &c.

1. THE STATE TEACHERS' ASSOCIATION.

President—Professor Versal J. Walker.....St. Anthony's Falls.
 Vice President—Professor Ira Moore.....St. Cloud.
 Secretary—S. S. Taylor.....St. Paul.
 Treasurer—Ozias Whitman.....Red Wing.

Meets 1873, at Stillwater.

2. THE MINNESOTA STATE MEDICAL SOCIETY.

President—W. W. Mayo, M. D.....Rochester.
 1st Vice President—W. W. Sweney, M. D.....Red Wing.
 2d Vice President—S. C. McCormick, M. D.....Duluth.
 3d Vice President—W. L. Lincoln, M. D.....Wabasha.
 Treasurer—S. B. Sheardown, M. D.....Stockton.
 Secretary—Chas. E. Smith, M. D.....St. Paul.

3. THE STATE AGRICULTURAL SOCIETY.

President—O. P. Whitcomb.....Rochester.
 Secretary—Wm. Paist.....St. Paul.
 Treasurer—C. A. Wheaton.....Northfield.

Winter meeting in St. Paul, first Wednesday in February.

4. THE STATE HORTICULTURAL SOCIETY.

President—R. J. Mendenhall.....Minneapolis.
 Corresponding Secretary—John L. Harris.....La Crescent.
 Recording Secretary—A. W. McKinstry.....Faribault.
 Treasurer—Wyman Elliott.....Minneapolis.

The above officers constitute the Executive Committee.

5. THE MINNESOTA NATURAL HISTORY SOCIETY.

President—Rev. S. Y. McMasters, D. D.....St. Paul.
 Annual meeting, 2d Tuesday in April, at the University, St. Anthony Falls.

6. THE STATE MUSICAL ASSOCIATION.

President—A. C. Gutterson.....Owatonna.
 Vice President—H. M. Chase.....Minneapolis.
 Secretary—R. C. Munger.....St. Paul.
 Treasurer—Dr. Geo. A. Williamson.....Red Wing.

7. THE MINNESOTA HISTORICAL SOCIETY.

President—Charles E. Mayo.....St. Paul.
 Vice Presidents—James J. Hill, R. O. Sweeney.....St. Paul.
 Secretary and Librarian—J. F. Williams.....St. Paul.

Annual meeting, 2d Monday in January, at St. Paul.

POPULATION OF THE UNITED STATES.

	1870.	1860.	1850.
Alabama.....	996,992	964,201	771,623
Arkansas.....	484,471	435,450	209,897
California.....	560,247	379,994	92,597
Connecticut.....	537,554	460,147	370,732
Delaware.....	125,015	112,216	91,532
Florida.....	187,748	140,424	87,445
Georgia.....	1,184,109	1,057,286	906,185
Illinois.....	2,539,891	1,711,051	851,470
Indiana.....	1,680,637	1,350,428	983,416
Iowa.....	1,191,792	674,923	192,214
Kansas.....	864,399	107,206	.....
Kentucky.....	1,321,011	1,155,684	982,405
Louisiana.....	726,945	708,002	517,762
Maine.....	624,915	628,279	583,169
Maryland.....	780,894	687,049	533,034
Massachusetts.....	1,487,351	1,231,908	994,514
Michigan.....	1,184,051	746,112	397,654
Minnesota.....	489,706	172,022	6,077
Mississippi.....	827,922	791,805	606,526
Missouri.....	1,731,246	1,198,019	682,044
Nebraska.....	122,993	28,541	.....
Nevada.....	48,491	6,857	.....
New Hampshire.....	318,300	326,073	317,976
New Jersey.....	906,096	672,035	489,555
New York.....	4,332,759	3,880,785	3,097,394
North Carolina.....	1,071,361	942,622	869,039
Ohio.....	2,665,230	2,339,511	1,950,329
Oregon.....	90,923	32,465	13,294
Pennsylvania.....	3,521,791	2,906,215	2,311,786
Rhode Island.....	217,353	174,620	147,545
South Carolina.....	705,006	703,708	668,507
Tennessee.....	1,258,520	1,109,801	1,002,717
Texas.....	818,579	604,215	212,592
Vermont.....	380,551	315,098	314,120
Virginia.....	1,225,168	1,219,630	1,421,661
West Virginia.....	442,014	376,688	.....
Wisconsin.....	1,054,670	775,881	305,391
Total States.....	38,113,253	31,183,744	23,067,262
Arizona.....	9,658	.....	.....
Colorado.....	39,864	34,277	.....
Dakota.....	14,181	4,837	.....
District of Columbia.....	131,700	75,080	51,687
Idaho.....	14,999	.....	.....
Montana.....	20,595	.....	.....
New Mexico.....	91,874	93,516	61,547
Utah.....	86,786	40,273	11,380
Washington.....	23,955	11,594	.....
Wyoming.....	9,118	.....	.....
Total Territories.....	442,730	259,577	124,614
Total States and Territories.....	38,555,983	31,443,321	23,191,876
1870.....	38,555,983	1840.....	17,069,453
1860.....	31,443,321	1830.....	12,866,020
1850.....	23,191,876	1820.....	9,633,822
		1790.....	7,239,861
			5,308,438
			3,920,214
	1870.	1860.	1850.
Native.....	32,989,437	27,304,624	20,912,612
Foreign.....	5,566,546	4,138,697	2,244,602
Unknown.....	.....	.....	34,662
	1870.		
White.....	.....	.....	33,576,989
Colored.....	.....	.....	4,880,009
Chinese.....	.....	.....	63,254
Indians.....	.....	.....	25,731
Total as above.....	.....	.....	38,555,983

POPULATION OF MINNESOTA.

	1870	1860	1850		1870	1860	1850
Aiken	178	2	.....	Meeker	6,098	928	.....
Anoka	3,940	2,106	.....	Mille Lacs	1,109	73	.....
Becker	308	386	.....	Monongalia	3,181	350	.....
Beltrami	80	.....	.....	Morrison	1,681	618	.....
Benton	1,558	627	418	Mower	10,447	3,217	.....
Big Stone	24	.....	.....	Murray	209	29	.....
Blue Earth	17,302	4,803	.....	Nicollet	8,362	3,773	.....
Breckenridge	.....	79	.....	Nobles	117	35	.....
Brown	6,393	2,339	.....	Olmsted	19,793	9,524	.....
Buchanan	.....	26	.....	Otter Tail	1,968	240	.....
Carleton	296	51	.....	Pembina	64	1,612	1,134
Carver	11,586	5,116	.....	Pierce	.....	11	.....
Cass	381	150	.....	Pine	648	91	.....
Chippewa	1,467	.....	.....	Pipe Stone	.....	23	.....
Chisago	4,358	1,748	.....	Polk	.....	240	.....
Clay	92	.....	.....	Pope	2,691	.....	.....
Cottonwood	534	12	.....	Ramsey	23,085	12,150	2,227
Crow Wing	200	269	.....	Redwood	1,829	.....	.....
Dakota	16,312	9,093	.....	Renville	3,219	245	.....
Dodge	8,598	3,797	.....	Rice	16,083	7,543	.....
Douglas	4,239	195	.....	Rock	138	.....	.....
Faribault	9,940	1,335	.....	Scott	11,042	3,595	.....
Fillmore	24,887	13,542	.....	Sherburne	2,050	723	.....
Freeborn	10,578	3,367	.....	Sibley	6,725	2,609	.....
Goodhue	22,618	8,977	.....	Stearns	14,206	4,505	.....
Grant	340	.....	.....	Steele	8,271	2,863	.....
Hennepin	31,566	12,849	.....	Stevens	174	.....	.....
Houston	14,936	6,645	.....	St. Louis	4,561	406	.....
Isanti	2,035	284	.....	Todd	2,036	430	.....
Itasca	96	51	97	Traverse	73	.....	.....
Jackson	1,825	181	.....	Wabashaw	15,859	7,228	243
Kanabec	92	30	.....	Wadena	6	.....	.....
Kandiyohei	1,760	76	.....	Wahuaata	.....	.....	169
Lac qui Parle	145	.....	.....	Waseca	7,859	2,601	.....
Lake	135	248	.....	Washington	11,709	6,123	1,056
Le Sueur	11,607	5,318	.....	Watsonwan	2,426	.....	.....
Mankato	.....	.....	158	Wilkin	295	40	.....
Manomini	.....	136	.....	Winona	22,318	9,208	.....
Martin	3,867	151	.....	Wright	9,457	3,729	.....
McLeod	5,643	1,286	.....			
Totals	.....	.....	.....	Totals	439,706	172,023	6,077

	1870	1860	1850
White	438,257	168,395	6,038
Colored	759	259	39
Indian	699	2,369	.....
Totals	439,706	172,023	6,077

POPULATION OF THE PRINCIPAL CITIES—1870.

St. Paul	20,030	Rochester	3,953	Owatonna	2,070
Minneapolis	13,066	Mankato	3,482	St. Cloud	2,161
Winona	7,192	Hastings	3,453	Austin	2,039
St. Anthony	5,613	Duluth	3,131	Shakopee	1,349
Red Wing	4,260	Faribault	3,045	Rushford	1,245
Stillwater	4,124	St. Peter	2,124	St. Charles	1,151

Minnesota contains 83,531 square miles, or 53,459,840 acres. At the rate of increase of the last decade, her population in 1880 would be 1,121,250. It is now estimated to be 527,454

THE NATIONAL EDUCATIONAL ASSOCIATION.

President—B. G. Northrop New Haven, Connecticut.
 1st Vice President—Newton Bateman Springfield, Illinois.
 Secretary—S. H. White Peoria, Illinois.
 Treasurer—John Hancock Cincinnati, Ohio.

NORMAL DEPARTMENT.

President—A. J. Boyden, A. M. Bridgewater, Massachusetts.
 Vice President—J. Estabrook Ypsilanti, Michigan.
 Secretary—M. A. Newell Baltimore, Maryland.

SUPERINTENDENT'S DEPARTMENT.

President—W. T. Harris St. Louis, Missouri.
 Vice President—J. W. Page Frederick, Maryland.
 Secretary—A. P. Marble Worcester, Massachusetts.

DEPARTMENT OF HIGHER INSTRUCTION.

President—Dr. D. A. Wallace Monmouth, Illinois.
 Vice President—J. D. Runkle Boston, Massachusetts.
 Secretary—W. D. Henkle Salem, Ohio.
 Meets 1873 at Elmira, New York.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF
SCIENCE.

J. Lawrence Smith—President Louisville, Kentucky.
 A. H. Worthen—Vice President Springfield, Illinois.
 F. W. Putnam—Permanent Secretary Salem, Massachusetts.
 Charles A. White—General Secretary Iowa City, Iowa.
 W. S. Vaux—Treasurer Philadelphia, Pennsylvania.

OFFICERS ELECT OF THE AMERICAN ASSOCIATION.

President—Joseph Lovering Cambridge, Massachusetts.
 Other officers re-elected.

THE AMERICAN PHILOLOGICAL ASSOCIATION.

President—Prof. A. C. Kendrick Rochester, New York.
 Vice President—Prof. F. A. March Easton, Pennsylvania.
 Secretary—Prof. G. F. Comfort Syracuse, New York.
 Treasurer—J. H. Trumbull Hartford, Connecticut.
 Chairman of Executive Committee—Dr. Howard Crosby New York.
 Meets at Easton, Pennsylvania, July 22, 1873:

POPULATION OF FIFTY CITIES.

	1870	1880	1850		1870	1880	1850
New York, N. Y.	942,292	805,658	515,547	Charleston, S. C.	48,956	40,522	42,315
Philadelphia, Pa.	674,022	565,529	340,045	Indianapolis, Ind.	48,244	18,611	8,091
Brooklyn, N. Y.	396,099	266,661	96,898	Troy, N. Y.	46,465	39,235	28,785
St. Louis, Mo.	310,864	160,773	77,860	Syracuse, N. Y.	43,051	28,119	22,271
Chicago, Ills.	298,977	109,260	29,963	Worcester, Mass.	41,105	24,960	17,049
Baltimore, Md.	237,354	212,418	169,054	Lowell, Mass.	40,928	36,827	33,383
Boston, Mass.	250,526	177,840	136,881	Memphis, Tenn.	40,226	22,623	8,841
Cincinnati, O.	216,239	161,044	115,435	Cambridge, Mass.	39,634	26,060	15,215
New Orleans, La.	191,418	168,675	116,375	Hartford, Conn.	37,180	29,152	13,555
San Francisco, Cal.	149,473	56,802	34,870	Scranton, Pa.	35,092	9,222	
Buffalo, N. Y.	117,714	81,129	42,261	Reading, Pa.	33,930	23,162	15,743
Washington, D. C.	109,199	61,122	40,001	Paterson, N. J.	33,579	19,586	17,615
Newark, N. J.	105,050	71,941	38,894	Mobile, Ala.	32,341	29,258	20,515
Louisville, Ky.	100,753	68,033	43,194	Toledo, Ohio.	31,584	13,768	8,829
Cleveland, O.	92,829	49,417	17,034	Portland, Me.	31,413	26,341	20,815
Pittsburg, Pa.	86,076	49,217	46,601	Columbus, Ohio.	31,274	18,554	17,882
Jersey City, N. J.	82,546	29,226	6,856	Wilmington, Del.	30,841	21,258	13,979
Detroit, Mich.	75,577	45,619	21,019	Dayton, Ohio.	30,473	20,081	10,977
Milwaukee, Wis.	71,440	45,246	20,061	Lawrence, Mass.	28,921	17,639	8,282
Albany, N. Y.	69,422	62,367	50,763	Utica, N. Y.	28,804	22,529	17,565
Providence, R. I.	68,904	50,666	41,513	Charlestown, Mass.	28,323	25,065	17,216
Rochester, N. Y.	62,886	48,204	36,403	Savannah, Ga.	28,225	29,292	15,312
Alleghany, Pa.	53,180	28,702	21,262	Lynn, Mass.	28,233	19,063	14,257
Richmond, Va.	51,098	37,910	27,570	Fall River, Mass.	26,766	14,026	11,524
New Haven, Conn.	50,840	39,267	20,345				

PRIVATE COLLEGIATE AND ACADEMIC INSTITUTIONS IN MINNESOTA.

TITLE.	PRESIDENT OR PRINCIPAL.	LOCATION.
CARLETON COLLEGE.....	Rev. J. W. Strong, D. D.	Northfield.
JESUS COLLEGE.....	Rev. E. D. Neill.....	St. Anthony's
ST. JOHN'S COLLEGE.....	Rev. W. Northman.....	Clinton. [Falls.
Red Wing Collegiate Institute.	Prof. W. H. Hood.....	Red Wing.
Shattuck School.....	Rev. James Dobbin.....	Faribault.
Alden Seminary.....	Mr. W. H. Ernst.....	Alden.
Afton Academy.....	Mr. D. W. Lyon.....	Afton.
Norwood Seminary.....	Mrs. Wm. J. Smith.....	St. Paul.
St. Mary's Hall.....	Miss S. P. Darlington...	Faribault.

The Minnesota Historical Society, located at St. Paul, was instituted in the year 1846. Its objects are to collect materials illustrative of the history of Minnesota; to rescue from oblivion the memory of its early pioneers, to obtain and preserve memorials of its Indian tribes, and to accumulate a Library chiefly illustrating American history, particularly that of the Northwest. It has commodious rooms in the State Capitol, open daily, and has collected a fine Library of 4,000 bound volumes, and 7,500 pamphlets, besides 375 volumes of Minnesota newspapers, a number of portraits, MSS., &c., all relating to the State. The society respectfully solicits contributions of books and pamphlets printed in or relating to Minnesota; a history of every town and county in the State; names of the first settlers; biographies of prominent pioneers, with their portraits; incidents of the early history of Minnesota; Indian curiosities; war relics; aboriginal remains, such as stone axes, arrow-heads, etc.; maps, pictures, &c., &c. They can be directed to the Secretary at St. Paul.

RATES OF POSTAGES.

DOMESTIC.

I. *Letters*.—Three cents per half ounce or fraction thereof to any part of the United States. Drop letters one cent; or if delivered by carriers, two cents. All letter postages must be prepaid by stamps or stamped envelopes, except on letters to the President and Vice President, to members of congress, or (on official business) to the chiefs of executive departments of the government, and the heads of bureaus therein, or to chief clerks of departments, or to others invested with the franking privilege. Letter postage is charged on all printed matter which contains *any manuscript writing whatever*.

II. *Newspapers*.—Dailies per quarter, 35 cents; tri-weeklies, 15 cents; semi-weeklies, 10 cents; weeklies, 5 cents; to subscribers within the county, *free*.

III. *Periodicals*.—Monthlies, 3 cents per rate of 4 oz; quarterlies, 1 cent per rate of 4 ounces; newspaper exchanges *free*. All newspaper postage must be paid *in advance*, quarterly or yearly.

IV. *Printed Matter not periodical*.—Embracing pamphlets, occasional publications, transient newspapers, magazines, handbills, **book* manuscripts, proof-sheets corrected or not, maps, posters, unsealed circulars, prospectuses, blanks; 1 cent per rate of 2 ounces, limited to 4-pound packages.

V. *Books*.—2 cents per rate of 2 ounces; limited to four pounds, except books circulated by order of congress.

VI. *Other Mailable Matter*.—2 cents per rate of 2 ounces, limited to 12 ounces.

VII. *Money Order Fees*.—\$5 to \$10, five cents; \$10 to \$20, ten cents; \$20 to \$30, 15 cents; \$30 to \$40, 20 cents; \$40 to \$50, 25 cents.

VIII. *Registration Fees*.—Inland, 15 cents; Foreign, variable.

IX. *Stamped Envelopes*.—Present prices of first quality, per hundred—Three-cent note size, $2\frac{1}{4} \times 5\frac{1}{2}$ inches, \$3.26; one-cent, ordinary letter size, $3\frac{1}{2} \times 5\frac{1}{2}$, \$1.31; three-cent do., \$3.34; three-cent, full letter size, $3\frac{1}{4} \times 5\frac{1}{2}$, \$3.38; three-cent, extra letter, $3\frac{1}{4} \times 6\frac{1}{2}$, \$3.42; one-cent newspaper wrappers, \$1.13. When ordered in quantities of 250 or more the P. O. Department will print in the upper left hand corner, without charge, *the name, post-office address, and a request to return*.

*Manuscripts for publication in newspapers, magazines, &c., require letter postage.

FOREIGN.

COUNTRY.	Letters, per $\frac{1}{2}$ oz.	News- papers per oz.	ROUTE,—REMARKS,
Argentine Republic.....	18	4	American Packet from N. Y. 23d of each mo.
Austria.....	6*	3	via North German Union.
British Provinces.....	6	2	Unpaid letters 10 cents.
China, Japan & E. Indies.	10	2	American Packet via San Francisco.
Cuba.....	10	2	Direct.
Denmark.....	9*	6	via North German Union.
France.....	6	2	Direct. Open mail via England 4*.)
German States.....	7*	3	via North German Union direct.
Great Britain and Ireland.	6*	2	Direct.
Greece.....	14	9	via North German Union.
Italy.....	10	4	Direct closed mail via Eng. (N. G. U. 10 & 6).
Mexico.....	10	3	Direct from New York.
Norway.....	11*	8	via N. G. U.
Russia.....	11	6	Direct, (closed mail via England 12 & 7).
Spain.....	16	6*	via Marseilles for $\frac{1}{2}$ oz. (open mail via Eng. 4*)
Sweden.....	19*	8	via N. G. U.—(via Stettin. 10 & 2).†
Turkey.....	11*	7	via North German Union.
West Indies.....	10	2	American Packet, 23d of each month.

*Pre-payment optional.

†Once a month.