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THE FIRST AND LAST
JOURNEYS OF THOREAU

Vol. II

HENRY D. THOREAU.



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Henry D. Thoreau

THE
FIRST AND LAST JOURNEYS
OF
THOREAU

LATELY DISCOVERED AMONG HIS UNPUBLISHED JOURNALS
AND MANUSCRIPTS

EDITED BY
FRANKLIN BENJAMIN SANBORN



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III
THE LAST JOURNEY OF
THOREAU

May 11 to July 10, 1861

ALTHOUGH Henry Thoreau took a short trip to visit his New Bedford friend, Daniel Ricketson, a month or two after his return from Minnesota and Mackinaw, the latter was the longest and last journey of his journeying life. He was never in health afterward sufficient to enable him to bear the fatigue of his travels in the Maine forest, on Cape Cod, in Canada, at the White Mountains, or the Monadnoc region nearer Concord, and, in view from its Indian hills, Nashawtuc or Anursnac. His Minnesota journey took him farther from those dear hills than ever before; not less than three thousand five hundred miles going and re-

[7]

turning; and occupied about two months. It had been planned long in advance, for the benefit of Thoreau's failing health; but it was not decided, until within a week of his setting forth, who should be his companion. He had thought of Ellery Channing, and it had been almost settled that Channing should meet him at Niagara. This would have had the advantage that Channing was his best friend, had travelled long with him, and was familiar with much of the country through which they were to go, from an early residence in Illinois near Wisconsin, and frequent journeys and voyages among the great lakes and over the prairies, which Thoreau had never seen. But as everything was uncertain which depended on Channing's variable mood, his friend wrote, May 3, 1861, to another intimate comrade, Harrison Blake of Worcester, modestly proposing that he should go. He said:

I have concluded it will be most expedient for me to try the air of Minnesota, say somewhere about St. Paul. I am only waiting to be well enough to start; hope to

get off within a week or ten days. I am so much an invalid that I shall have to study my comfort in travelling to a remarkable degree — stopping to rest, etc., if need be. I think to get a through ticket to Chicago, with liberty to stop frequently on the way : at Niagara Falls several days or a week, at a private boarding-house ; then a night or day at Detroit ; and as much at Chicago as my health may require. At Chicago I can decide at what point (Fulton, Dunleith, or another) to strike the Mississippi, and take a boat to St. Paul. I expect to be gone three months, and would like to return by a different route, — perhaps Mackinaw and Montreal.

I have thought of finding a companion, of course ; yet not seriously, because I had no right to offer myself as a companion to anybody, having such a peculiarly private and all-absorbing but miserable business as *my* health, and not altogether *his* to attend to. Nevertheless, I have just now decided to let you know of my intention, thinking it barely possible that you might like to make a part or the whole of this journey at the

same time, and perhaps that your own health may be such as to be benefited by it.

Mr. Blake could not go, but invited Thoreau to spend a Sunday with him at Worcester on his way, which was done, as will be seen. He was really accompanied by Horace Mann,—the son of the educational reformer and statesman, who died in 1859. Mrs. Mann with her three sons came to reside in Concord soon after his death, and in 1860 bought and enlarged the house on Sudbury Street now occupied by Dr. Titcomb, where she was living early in 1861, when she wrote the following note to Thoreau, on the back of which he wrote notes of authorities for his Minnesota journey :

DEAR MR. THOREAU : —

Mrs. Josiah Quincy, a lady who reads and admires your books very much, is passing a few days with me. Will you come in and dine with us to-day? It will give her much pleasure to see you, and when you are tired of talking with ladies, Horace will be glad to have his promised visit, and

you shall release yourself when you please.
We dine at one.

With much regard,

MARY MANN.

HENRY THOREAU Esq., Present.

No date appears on this note-sheet, it having been carefully torn off; but it was probably in April, 1861. Very likely at this "promised visit" the proposition was made for young Mann to accompany Thoreau. He was a botanist, and a grave, silent pupil of mine, along with his more lively younger brothers, George and Benjamin. For his journey Thoreau selected, and his mother and sister prepared, an outfit of clothes etc., which will be listed hereafter. It was finally arranged between him and his most intimate friend (then living across the street from Thoreau), Ellery Channing, who could not go with him from Concord, that they should meet at Niagara, where Thoreau was to make his first long halt; but the moody Channing failed to keep his rendezvous. Thoreau bought his ticket from Boston to Chicago, with liberty to stop over at Sus-

pension Bridge, as I had done a few years before, on a journey through Chicago to Nebraska, in August, 1856. But he went by the Worcester and Nashua Railroad from his home to Worcester, where he took the through Boston train by way of Albany to Niagara. He left Concord in the afternoon of May 11, 1861, tarried in Worcester with his friends, Harrison Blake and Theodore Brown, over Sunday, the 12th, as will appear in the record, for a night and a day, and on the 13th was fairly on his way for the long journey. On the 14th he notes the scenery about Schenectady and along the Mohawk, which was new to him, though he had been on the Hudson. In Worcester he drove with his friends easterly into the next town, circling what is now called Lake Quinsigamond. "Rode around parallel to Long Pond in Shrewsbury, — a pleasant ride." He may have remembered that his English friend, Thomas Cholmondeley, was then living at English Shrewsbury in Shropshire, for which the Massachusetts town was named. The next entry is of the 13th of May, on the Boston and Albany railroad :

Hills near the railroad between Westfield and Chester village, and thereafter in Massachusetts, maybe as high or higher, but more sincere or less modish (?). Leafing in western Massachusetts more advanced; apple-trees greenish, red elderberry just beginning.

The comparison of the western hills seems to be with the smooth, rounded hills of eastern Massachusetts. He had seen them before, but not often.

14. Albany to Schenectady. Level, — in pine plains; white pine and white birch (shadbush in bloom), with hills at last. No houses, only two or three huts in edge of woods on our road. Mohawk at Schenectady; yellow stream, or clay-colored, bordered with willows and maples. Above Schenectady the Mohawk valley, more than half a mile wide, — low bank with interval each side, bounded by hills two hundred or three hundred feet high. On north side they begin to flat off at Palatine Bridge.

Most striking rough scenery at Little Falls. Pine uplands; country spreads out

wide this side of Utica. Yet more high flats beyond Rome, and very wet. Syracuse with lakes and salt works. Considerable cedar swamp thus far and farther. In Syracuse large, city-like streets.

Rochester with interesting river and falls dividing it. Country between Syracuse and Rochester more diversified, or hill and plain. Afterwards flat again, and probably at last descending. At Suspension Bridge are the "Monteagle" (a *high* house), the "New York Central," and just east of that the "Western House."

At the "New York Central" he passed the remainder of the night, and went to Niagara the next day.

15. To Niagara Falls. Afternoon to Goat Island. Sight of the Rapids from the Bridge like the sea off Cape Cod, — most imposing sight as yet. The great apparent height of the waves tumbling over the immense ledges — at a distance; while the water view is broad and boundless in that direction, as if you were looking out to sea, you are so

low. Yet the distances are very deceptive ; the most distant billow was scarcely more than a quarter of a mile off, though it appeared two miles or more. Many ducks were constantly floating a little way down from the Rapids, — then flying back and alighting again. The water farther up broken into lengths of four to six rods, — more, probably. Masses of ice under the edge of the cliff. Horace Mann asked me if I had not heard the sound of the Fall as we went from the depot to the hotel last night ; but I had not, though it was certainly loud enough. I had probably mistaken it for a train coming, or a locomotive letting off steam, — of which we have so much at home.¹ It sounds hardly so loud this morning, though now [at Niagara town] only a third of a mile off ; the impression is as if I were surrounded by factories.

This saying was prophetic ; for there are now many factories at Niagara deriving their power from the force of the great waterfall. Thoreau continues :

¹ Thoreau's home was within a few rods of the Concord railroad station.

This is quite a town, with numerous hotels and stores, and with paved streets; and I imagine the Falls will soon be surrounded by a city. I pay a dollar a day here, and shall certainly stay till next Monday [the 20th of May] at least. Direct to Chicago, Ill., till Monday next is passed. The population of Niagara Falls village is about five thousand.

Thoreau waited there some days, expecting his friend Channing, and wrote home some of the observations here noted down; but the letter may not have been preserved. The remark about Chicago was intended for his family in Concord. He spent his days rambling about Goat Island, the Canadian shore, and the whole region of the Falls, and goes on this same day, May 15:

The prevailing trees on Goat Island are the beech, bass, — the former most forward in leafing, — sugar-maple, arbor-vitæ, red cedar, ostrya (?) elm, hemlock, and horn-beam. The most conspicuous flowers in bloom were the large white *trillium*, with

leaves and petals and sepals of very various width and form (*Trillium grandiflorum*); *Trillium erectum* (dark purple); much less common with us; both these in flower. The first whitens large tracks of woodland as seen from the railroad in New York State.

Also *Claytonia Virginica* (spring-beauty) is very common, forming large patches spotted with white (?) as does the *Dentaria laciniata*. The former, indeed both of them, are a little ahead of the white *trillium* in time. The *D. l.* varies from pale purple to white.

The *Dicentra cucullaria* perhaps is next most noticeable, with its very handsome low-spreading, finely-divided leaves, and its erect spike of whitish flowers. (April in flower.)

The May-apple leaves are as large as ever, and it is strongly flower-budded, and stands in more or less dense patches, like little green umbrellas.

Dog's-tooth violet has just about *done*, but has been very common.

Aralia trifolia well in flower; generally quite low and delicate.

Arabis lyrata leaves and white flowers.
(April in flower.)

Perhaps *Orchis spectabilis* in bud.

Viola pubescens, (April in flower). *Viola pedata*.

Ranunculus abortivus in bloom.

Ribes cynosbati, with prickly fruit, in flower. (Yet stamens and pistils longer than calyx.) Very common.

Cohosh just in bloom.

Lepidium campestre in bloom and going to seed.

Cardamine (rhomboidea-like)? — purplish flowers.

Amelanchier, downy variety, thirty feet high, in full bloom, but leaves less open than *Botrychium* near, which is not quite out.

Shepherdia Canadensis. At north end of isle, ice under the cliff.

May 16. Afternoon. Walk on Goat Island.

May 17. Go to Suspension Bridge and walk up on the Canada side. The completest view of the Falls is from that side. Pestered by coachmen, etc. The "Clifton

House" commands the best view of any public house. Afternoon to the river above the Falls. A man says he calls these ducks "coween," and that they and other ducks, both wild and tame, alight in the mist and are often carried over the Falls. That they catch with a seine here black and white bass, pickerel, muskellonge, etc.; and below the Falls, eels, catfish, etc. I find Indian pottery. In the woods east of Niagara Town is the red-bellied woodpecker (*Picus carolinus*). The ducks in the Rapids are apparently the long-tailed duck or "old squaw."

May 18. Measure the trees on Goat Island. The bass (two of them) fourteen feet four inches, and thirteen feet five inches; two beeches, eight feet six inches and seven feet seven inches. [This was the circumference. Measuring the girth with a string is the common method.]

On the 19th of May, which was Sunday, there is no entry in the Notes, unless it is this:

N. B. See about letters and write home.

Postmaster Collier, 173, Randolph, one to four P. M.

But this was a Chicago entry.

A more concise list of the Goat Island plants follows, thus :

Trillium grandiflorum, broad petalled. *T. erectum*, variety *alba*, but long-petalled.

Cardamine rhomboidea-like, purple-flowered.

Dentaria laciniata, white (?) flowered, also pale purple.

Claytonia Virginica (spring-beauty). *Dicentra cucullaria*.

Podophyllum, May-apple. *Viola pubescens*.

Ranunculus abortivus.

Shepherdia Canadensis. *Amelanchier*, variety *oblonga*, thirty feet high.

Aralia trifolia. *Arabis lyrata*. *Ribes cynosbati*. Cohosh just out.

Lepidium campestre, in bloom. Dog's-tooth violet. *Orchis spectabilis*.

Trees, — maple, beech, bass, arbor vitæ, cedar, ostrya, hemlock.

May 20. Niagara Falls to Detroit. Canada agreeably diversified, *i. e.* more, as compared with New York ; with a view of Lake

Ontario, quite sea-like. Decidedly more level west of London, and wet, — but probably rich. Great ferns with bulrush (?); wild fowl east of Lake St. Clair; of which a long and fine view on each side of the Thames. Crossing, saw about Thamesville a small plump bird, — red head and blackish or bluish back and wings, but with broad white on the rounded wing and tail. Probably the red-headed woodpecker.

May 21. Detroit to Chicago. Very level to Ypsilanti, then hilly to Ann Arbor, then less hilly to Lake Michigan. All hard wood, or no evergreen, except some white pine when we struck Lake Michigan, on the sands from the Lake, and some larch before.

Phlox, varying from white to bluish, and painted cup deep scarlet, and also yellow (?) or was this wallflower (?) all very common through Michigan, and the former, at least, earlier [than with us].

The one-dollar houses in Detroit are “The Garrison” and “The Franklin” — in Chicago try next “The City Hotel.” The prevailing shade-tree in Chicago is the cottonwood.

May 22. Saw last evening high dune hills along the Lake, and much open oak wood, low, but old (?), with black trunks, but light foliage. Chicago is about fourteen feet above the Lake, — sewers and main drains fall but two feet in a mile.

Rode down Michigan Avenue; men sometimes see the land loom across the Lake sixty miles. Chicago is built chiefly of limestone from forty miles southwest. Lake Street is the chief business one. The water is milky. The fencing on the railroad in Canada and Michigan is of narrow boards or Virginia fence, — no posts and rails. Another small fenny prairie on the Calumet River, south of Lake Michigan, with that rank, dry grass (not bulrush) in it.

May 23. From Chicago to Dunleith very level the first twenty miles; then considerably more undulating; the greatest rolling prairie without trees is just beyond Winnebago. The last forty miles in the northwest of Illinois quite hilly. The Mississippi causes backwater in the Galena River for eight miles back [from its mouth on the east bank of the Mississippi]. The water is

high now ; the thin woods flooded, with open water behind. See the marsh pink and apples on a flowered, apple-like tree (thorn-like) through Illinois, which may be the *Pyrus coronaria*. The distances on the prairie are deceptive ; a stack of wheat-straw looks like a hill in the horizon, a quarter or half-mile off, — it stands out so bold and high.

There is only one boat up daily from Dunleith¹ [now called East Dubuque] by this line, — in no case allowed to stop on the way. Small houses, without barns, surrounded and overshadowed by great stacks of wheat-straw. It is being thrashed on the ground. Some wood *always* visible, but generally not large. The inhabitants remind me of mice nesting in a wheat-stack, which is their wealth. Women are working in the fields quite commonly. The fences are of narrow boards ; the towns are, as it were, stations on a railroad. The *Staphylea trifolia* is out at Dunleith.

¹ Dunleith has long been known as 'East Dubuque, opposite the city of Dubuque in Iowa. Here was Thoreau's first view of the Mississippi, on which he embarked for the voyage up to St. Paul, occupying two days.

May 24. Up river, — the river, say sixty rods wide, or three-quarters of a mile between the bluffs. Broad, flooded, low interval covered with the willow in bloom (twenty feet high, rather slender), and probably other kinds — elms and white maple and cottonwood. Now boatable between the trees, and probably many ducks are there. The bluffs are (say) one hundred and fifty to two hundred feet high. Rarely is there room for a village at the base of the cliffs. There are oaks on the top (white?), ash, elm, aspen, bass on the slope and by the shore. The birds are kingfishers, small ducks, swallows, jays, etc. Passengers land on the shore oftentimes with a plank. There are great rafts of boards and shingles, four or five rods wide and fifteen or twenty rods long, but very few small boats. We see holes in the sides of hills at Cassville, where lead has been dug out. Occasionally a little lonely house stands on a flat or slope, often deserted. The river banks are in their primitive condition between the towns, — which is almost everywhere.

Twenty men in ten minutes load us with

some eighty or ninety cords of wood at one landing, disturbing a bat, which flies aboard of us. A willow-tree is shown floating horizontally across the river. Occasionally there are low islands. Macgregor, a new town opposite. Prairie du Chien is the smartest town on the river; it exports the most wheat of any town between St. Paul and St. Louis. There is wheat in sacks, great heaps of them, at Prairie du Chien, — covered at night, and all on the ground.

At Prairie du Chien is *Pulsatilla Nuttalliana*, out of flower, very large; *Viola pedata* also; possibly a white variety of the same, without marks on the petal. Hoary puccoon or alkanet (*Lithospermum canescens*), yellow-flowered, the root used by the Indians to dye red, — common from Chicago and even before. The redwing blackbird is the prevailing bird till the Mississippi River; on the river, pigeons, kingfishers, crows, jays, etc., with swallows (the white-bellied).

May 25. We got to Prairie du Chien last evening, and to Brownsville about six this morning. White pines began half a dozen miles above La Crosse, — a few; birches not

common. The cliffs here are high and interrupted, or in promontories.

We reached Fountain City about noon. The bluffs grow farther apart, and the rain channels more numerous than yesterday; sometimes there are two or three miles from bluff to bluff. We take a wood-boat along with us. Oaks, — commonly open, — on both sides the river. We see Indians encamped below Wabasha, with Dakota-shaped wigwams; also a loon on a lake, and fish leaping.

Every town has a wharf, with one storage building or several on it, and as many hotels, — this is everything, except commission merchants. “Storage,” “Forwarding,” or “Commission,” one or all these words are on the most prominent new buildings close to the waterside. Perhaps there will be a heap of sacks filled with wheat on the natural jetty or levee close by; or about Dubuque and Dunleith a blue stack of pig-lead, which is in no danger of being washed away. We see where they have dug for lead in the sides of the bluffs for many miles above Galena.

The steamer approaching whistles, then strikes a bell about six times funereally, with a pause after the third bell; and then you see the whole village making haste to the landing, — commonly the raw, stony, or sandy shore, — the postmaster with his mail-bag, the passenger, and almost every dog and pig in the town. That is commonly one narrow street and back-yards, at an angle of about forty-five degrees with the horizon. If there is more flat space between the water and the bluff, it is almost sure to be occupied by a flourishing and larger town.

We deserted the outside of the steamboat at a few miles above Red Wing, where there was a remarkable bluff (Red Wing Bluff) standing apart *before* the town, as we *approached* it. We reached St. Paul at two or three o'clock in the morning. The bluffs are here very much lower, and even below Red Wing they had been far more interrupted by hollows. We wooded up again before reaching Lake Pepin, taking the wood-boat along with us, now on this side, then on that. Notice the white maples, etc., and see more white birch on the bluffs.

May 26. Sunday. Breakfast at the "American House" in St. Paul, and come on by stage in the rain nine miles to St. Anthony, over the prairie, — the road muddy and sandy. At St. Paul they dig their building stone out of the cellar; but it is apparently poor stuff. There were several houses, yesterday and day before, surrounded by water, where they sell wood for some three or four dollars per cord; that was the price advertised. We towed a flatboat-load of stoneware pots from Dubuque to Winona, — the latter a pretty place.

Arrived at his stopping-place, for some time, Thoreau at St. Anthony and St. Paul began to examine more carefully the flora and fauna of this region so new to him, and to read up its topography and history. Leaving the exact order of days, therefore, his notes will be transcribed to show what interested him, and what he found recorded concerning the upper waters of the Mississippi and its native inhabitants. He found himself in the midst of birds, as Vergil says Aeneas did when landing on the banks of

the yellow Tiber, where his descendants were to found Rome; and these may first be catalogued. Writing at St. Anthony, and ranging over the region which is now Minneapolis, Thoreau says:

The redwing blackbird, which I found was the prevailing bird till I reached the Mississippi, is also common here. Here, too, I see or hear the marsh hawk, on the prairie the nighthawk, swallows (in the bank), martins (?) a *sereepa* note, (the particolored warbler, Maryland yellow-throat and night warbler). The horned lark is here very tame, — white on the end of the tail, chestnut head and yellowish. The bluebird, the thrasher and cat-bird, and the robin; the bay-wing, white-throated sparrow, chewink, tanager, lark, black-throated waxwing, and tufted kingfisher; pigeons, and I heard the flicker, who is such a telltale when near. The phœbe was on Nicollet Island; also the wood pewee and humming-bird, — the pewee seen in coming up the Mississippi. The redstart, summer yellowbird, and thrasher, — the latter in the oaks behind St. Anthony.

This mocker or the cat-bird I heard along the Mississippi as I came up. The red-headed woodpecker is here, and also all along through the great West. The plover (?) killdeer (?) (as on Cape Cod). The wood-thrush (or hermit?) Wilson's thrush; *Fringilla socialis* and *melodia*, goldfinch, oriole, yellowthroat and warbling vireo heard, — cherry-bird heard also. The rice-bird was seen in a low place in the woods at St. Anthony; the cow-bird on the prairie there, and the crossbill in the woods and swamps; the brown snipe on the prairie at St. Anthony. Saw the killdeer and another plover (?) on the prairie there. On May 29, at the Minnehaha Falls, a rose-breasted grosbeak was eating the seeds of the slippery elm. There I got the horned lark (*Otociris alpestris*), and saw the chestnut-sided warbler near the "laughing water." The slippery elm is very common here, and upright and often large, — half the size of a large white elm. The seringo bird on the prairie at St. Anthony.

These are the birds I have noticed since Chicago and some before: Saw the night-

hawk over the prairie in Illinois, as at Cape Cod, at mid-day. Heard the whippoorwill at Dunleith (?). Saw a large hawk or eagle, a pair (blackish) over the bluffs on the Mississippi; larks on the prairies in Illinois and Michigan, and along the Mississippi; crows along that river, and the blue jay, kingfisher, and passenger pigeon,—the latter Horace Mann saw in Illinois. At St. Anthony I saw a red-headed woodpecker on a telegraph-post within a stone's throw of the post-office.

So much for the birds. Of the trees, shrubs, and flowers we have this account :

From the back of the town (St. Anthony) to the bur-oaks, a mile or more, the largest trees two feet in diameter, or averaging one foot; and thirty feet high; what oaks and maples are they? I see the sugar-maple and a little of the white. What *Juglandaceæ*?—butternut and hickory; the *celtis* (?) willows and grasses. The bur-oaks are low and spreading; the bark generally darker than a white oak which grows in the woods.

They are from one to three rods apart. The Minnesota University here is set in the midst of such an oak opening, and it looks quite artificial; and, unlike our pines left standing, they will probably thrive there as if nothing had happened. Here on the prairie I see the plantain, shepherd's purse, strawberry, violet sorrel (?), common red sorrel, *Ranunculus rhomboideus*, *Geum triflorum* (handsome), phlox (as on Nicollet Island), *Druba nemorosa*, with black pods, a scouring rush by a slough, low grass, and sedge. But here the prairie is fed over by horses, cows, and pigs. In an open wood north of St. Anthony, *Troximon cuspidatum* (dandelion-like) out, May 27. The ranunculus going out of bloom; the *Geum* with yellow petals, the style two inches long. Crossing the bridge into Nicollet Island, find the *Zanthoxylum Americanum* in flower; the *Turritis brachycarpa?* or *stricta?* in bloom, — or perhaps *Arabis lævigata*; the *Hydrophyllum Virginicum*, just begun; *Phlox divaricata* (variety *Laphammi*), showing raceme not sessile, varying from violet to purple and white; early flowering *Lychnis*, not out. *Cerastium ob-*

longifolium? or *nutans?* *Symphoricarpus* very forward. Anemone, pistils few, plant smooth and six to twelve inches high, in flower. *Allosorus gracilis?*

The puccoon, as in Michigan and Illinois, the showiest flower now.

May 28, in Minneapolis, Thoreau dined with Dr. Anderson, and in the afternoon rode with him to Lake Calhoun, four miles south, where they saw “the scarlet oak (*Quercus palustris*) with its fallen acorns by the lake; the *Viola pubescens* or *dentata?* budded, the *Amorpha* (which kind?) *fruticosa?* on the lake shore, the *Amelanchier* (which variety?) quite downy — the cottonwood with a black excrescence; the *Symphoricarpus occidentalis* (?) with dry fruit; the *Uvularia grandiflora*, the *Prunus Americana* (white flowered), sometimes purple, Dr. A. says; the *Populus heterophylla*, variety *aspenoides*, says Anderson; the *Betula pumila* in the larch swamp; the *Rhamnus alnifolius*, the *Rubus triflorus*, the *Salix candida* in fruit in the same swamp; by the lake, *Geranium maculatum*, just out; *Lonicera*, the *parviflora*,

budded, in the woods there; *Lithospermum longiflorum* by the lake, and other varieties of puccoon, — the *Orchis spectabilis* in the same woods; the *Smilacina stellata*, in flower in the swamp, with others more forward; a *Prunus Americana*, yet narrow-leaved, in bloom by the lake.”

This was a noble crop for the two botanists. Before dining with the doctor, apparently, Thoreau had found on the prairie *Osmorrhiza brevistylis* and a *Thaspium*, of the variety *apterum*; and he adds, “Dr. Charles L. Anderson [his host] has this variety, and also the *Zizia aurea*.”

At the Minnehaha region, May 29, Thoreau found, “A woolly senecio? not out; a *Heuchera* not out; an *Artemisium*? (with smell of summer savory) not budded; *Corydalis aurea* out; and by the river-side, *Salix longifolia*. Also *Turritis stricta* or *Arabis lævigata*, *Astragalus distortus*? — standard being notched, the tree cranberry, the *Trillium cernuum*, and the *Triosteum perfoliatum*,” — to all three he adds the note “not pressed,” as if he made a habit of pressing all that he

gathered. Then came “a prickly clematis (*viorna?*) a thorn, cockspur-like (not pressed), the hackberry, with irregular-hearted lanceolate leaves; *Smilax herbacea*, downy-leaved variety; the waahoo, budded, — a ranunculus in the moist, grassy, lowish ground by Minnehaha, — what kind? a *caulophyllum thalictrioides* done blooming, and a *Salix lucida*.” He also captured there “a bank-swallow’s egg, — large, — is it not the rough-winged?”

While gathering these spoils he had “the rose-breasted grosbeak very abundant in the woods of the Minnehaha, singing robin-like all the while;” and he noted that “acorns are full as scarce as with us, picked up by the *Spermophili*, and no doubt planted by them. A man sustained himself one winter on the spermophiles which he shot with a pistol, — a little flavored with slippery-elm bark.” This spermophile was the prairie-squirrel, whose habits were observed and noted in these same days of wandering round the Falls of St. Anthony and its vicinity. He is the *Spermophilus tridecemlineatus*, “erect, making a space look like a glove (?) over his hole, with

the nest of the gopher *bursarius* or pouched," says Anderson. There seems to be a distinction here properly drawn between the Missouri "gopher" (*Geomys bursarius*), and the Wisconsin prairie-squirrel, — the name "gopher" describing the burrowing of the creature, and signifying a gray squirrel in Canada, a striped squirrel in Wisconsin, and a pouched rat in Missouri; also a snake in Georgia, and a turtle in Florida. Immediately after noticing this squirrel, sitting erect by his hole, Thoreau observes a ribbon-snake in a swamp, and follows an Indian path over the prairie, where grain had been threshed with a machine. He notes that the more ornamental trees are poplars and willows, and that in Lake Calhoun are bass and bream for fish. On the prairie near are "a great number of goldenrods."

Returning to Minnehaha, he describes the striped spermophile, *S. tridecemlineatus*,¹ thus:

Dirty grayish-white beneath, — above, dirty brown, with six dirty, tawny, or clay-

¹ Audubon and Bachman call this the "ground-squirrel," and describe it at some length (1841). La Hontan (1703) calls it "the Swiss squirrel."

colored, *very* light-brown lines, alternating with broad (three times as broad) dark-brown lines or stripes, — the last having an interrupted line or square spot of the same color with the first mentioned, running down their middle; reminding me of the rude pattern of some Indian work, — porcupine quills, “gopher-work” in baskets and pottery.

The other, apparently the Missouri gopher, is thus described :

Larger, and indistinctly or finely barred or spotted with dark- and light-brown, — the hairs being barred so, -dark, -light, -dark. Both have feet like a marmot, and large pouches, and sit up by their holes like a woodchuck ; the first is not shy.

Next Thoreau describes the towns visited, with the date of their settlement :

St. Anthony was settled about 1847 ; Minneapolis in 1851. Its main streets are the unaltered prairie, with bur and other oaks left standing. The roads on the prairie are

a mere trail, more or less broad and distinct. Fort Snelling is thirty years old, and there was an account of it in the [old] *New England Magazine*. It retains but three or four acres of the great unbroken prairie that formerly belonged to the Fort; near which is a red oak, the largest oak I have seen here. Pike Island lies between the two mouths of the St. Peter's or Minnesota River [where it flows into the Mississippi]. The Mississippi is at the highest stage, but is running off. Notice how the ferry is worked across the Mississippi, by the stream itself.

Here a slight pencil sketch illustrates this device. He witnessed a regimental drill at the parade ground of the Fort, where volunteers for the Union army in the Civil War were daily received and sent forward to the front. He notes: "Some six hundred men are there, volunteers; about three hundred had left that morning," going down the Mississippi. Writing to me four weeks later from Red Wing, Thoreau said:

The people of Minnesota have *seemed* to

me more cold, — to feel less implicated in the war, — than the people of Massachusetts. However, I have dealt partly with those of Southern birth, and have seen but little way beneath the surface. I was glad to be told yesterday (June 25) that there was a good deal of weeping here at Red Wing when the volunteers stationed at Fort Snelling followed the regulars to the seat of war. They do not weep when their children go *up* the river to occupy the deserted forts, though they *may* have to fight the Indians there. It has chanced that about half the men whom I have spoken with in Minnesota, whether travellers or settlers, were from Massachusetts. It is apparent that Massachusetts, for one State at least, is doing much more than her share in carrying the war on.

This letter, written after a voyage up and down the Minnesota or St. Peter's River, of some six hundred miles going and coming, reviews and describes more fully in some respects his earlier trip up the Mississippi from Dunleith than his brief notes could do it; and may be quoted here. Thoreau said :

The grand feature hereabouts is the Mississippi River. Too much can hardly be said of its grandeur, and of the beauty of this portion of it, from Dunleith, and probably from Rock Island to Red Wing. St. Paul is a dozen miles below the Falls of St. Anthony, or near the head of uninterrupted navigation on the main stream, about two thousand miles from its mouth. There is not a "rip" below St. Anthony; and the river is almost as wide in the upper as in the lower part of its course. Steamers go up to the Sauk Rapids, above the Falls of St. Anthony, near a hundred miles farther, and then you are fairly in the pine woods and lumbering country. Thus it flows from the pine to the palm. The lumber, as you know, is sawed chiefly at the Falls (what is not rafted in the log to parts far below), having given rise to the towns of St. Anthony, Minneapolis, etc. In coming up from Dunleith you meet with great rafts of sawed lumber and of logs, twenty rods or more in length by five or six wide, floating down, all from the pine region above the Falls.

I read your letter on my arrival here, Sun-

day afternoon, June 23. I read it, and one from my sister Sophia (and Horace Mann his four), near the top of a remarkable isolated bluff here, called the Barn Bluff, or the Grange, or Red Wing Bluff, some four hundred and fifty feet high and half a mile long, — a bit of the main bluff or river-bank standing alone. The top of these bluffs, as you know, rises to the general level of the surrounding country, the river having eaten out so much. Yet the valley just above and below this (we are at the head of Lake Pepin) must be three or four miles wide.

Resuming now the notes made at Fort Snelling and vicinity, Thoreau says:

I overlook the broad valley of the St. Peter's River, bounded, as I look, on the south by a long range of low hills. The water in both rivers is quite high. The Fort is built of limestone (tawny or butterish), ten feet high, at the angle of the two rivers. The government buildings are handsome, for there was a mill here before the settlement. I found a bank-swallow's large eggs, four in

the nest, above the white-sandstone cliff, and saw a peculiar cork-barked elm in the woods. The horned lark seen here has a low jangling not peculiar note, — sparrow-like. Dr. Anderson thinks there is a more dwarfish or lower dandelion here, which is native. The prairie is annually burnt over. The St. Paul mission to the Indians was not far south of the Fort. Eighteen or nineteen years ago, the mill was here; now there are five drug stores in Minneapolis. A history of Minnesota has been written.

I saw five great “chicken” snakes killed on the prairie between Minneapolis and Fort Snelling. They also have rattlesnakes here in the woods. The houses on this prairie are half a mile apart; there is little fencing, and that of sawed boards.

The high blackberry is the most important fruit here; the prevailing one is *Ribes cynosbati*.

The prevailing violet and flower of the prairies is the *Viola pedata*, or *delphinifolia*. Common is a blue-flowered *Myosotis* (stickseed), but bracted; also an *Arabis* with toothed leaves, somewhat hirsute-like. Note

likewise a lobe-leafed *Lonicera*, a *Symphoricarpos*, and the *Scirpus* of the larch swamp.

A wild rice was formerly much used here by the Indians. In the *Transactions of the Wisconsin State Agricultural Society for 1852* (p. 286), Joseph Bowron says of this wild rice: "The squaws have a double object in thus tying the straws together; one is to prevent the waving of the heads together by the action of the wind, and thus threshing out the grain; and the other to prevent the straws from settling down into the water when they have become fully ripe." After collecting, they kiln-dry it enough to cook it, and beat it to get the husks off. In spring "they mix some grained sugar with it, to carry with them as their principal supply of food. They then eat it without further cooking. I have used it, and consider it far preferable to the southern rice for soups or boiled to eat with molasses or butter. When the Indians wish to grow it in some favorable place, they gather some of it when it is fully ripe, and scatter it in the water, when it grows without any further trouble."

This is one of the citations made by Thoreau in his long-continued study of the Indians, east and west, and in view of his visit to them at Redwood, to be mentioned hereafter.

Soon after reaching St. Paul, he went to see a kinsman or friend, named Thatcher, at his house in St. Paul, and of whom he thus wrote, May 27, to his sister at Concord :

I last evening called on Mr. Thatcher. He is much worse in consequence of having been recently thrown from a carriage, — so as to have had watchers within a few nights past. He was, however, able to give me a letter to a Dr. Anderson of Minneapolis, just over the river. You may as well direct to Mr. Thatcher's care still ; for I cannot see where I may be a fortnight hence.

This was the occasion of his day's acquaintance with Dr. Anderson, so fruitful in botanizing and natural history. He received letters from home at Mr. Thatcher's, and remained in that vicinity for more than a fortnight ; after which he joined an expedition

up the St. Peter's River to the Lower Sioux Agency, where the Sioux were to receive by this expedition their annual payments from the United States. The Governor of Minnesota, Alexander Ramsey, the Superintendent of Indian Affairs for the Northwest, and an Indian agent newly appointed by President Lincoln, were officially of the party, and there were at starting near a hundred passengers, including Thoreau and Horace Mann. Among them, too, was a nephew of Mrs. Alcott, Rev. Joseph May, recently graduated from Harvard and afterward settled as a pastor in Philadelphia, who had been trying to find Thoreau in St. Anthony. On June 17 this voyage began, and this is Thoreau's account of it:

June 17, six P. M. Start up the Minnesota River in the *Frank Steele*. River valley till nine P. M., very broad between the bluffs and hills; banks some six feet high, with much handsome but weedy grass, mixed with roses; but soon sloping to low, wet, and reedy meadows or shallow lagoons behind the river, which is some ten rods wide, fringed with

willows (black). The large trees occasionally were cottonwood and elm. The cottonwood is shaped somewhat like an ash.

At nine P. M. we are near Stanhope. At five A. M. we are said to be in the big woods; the wood all alive with pigeons, and they flying across our course. The river is often only eight rods wide, and quite snaggy. About 7.30 we pass a beautiful open intervale of native grass on the right. Many large turtle-tracks on shore; many *erigerons* in the grass. The black willows are often quite tall (thirty-five feet) and slender, and straight too. The small *Salix longifolia* beneath it. Very crooked river; acres of roses in the intervale. Swallows, kingfishers, blue jays, and warbling vireos along the shores. Grapevines in blossom climbing on a cottonwood. We often strike the shore with our stern, or stop and back to get round snags and bars. Muddy-looking water, with soft-shelled and snapping turtles in it. See a turkey-buzzard and blue herons, and in the river some young ducks. The long-leaved willow is common, and there is a dense growth of upright weeds. Note the big wood near Henderson (?).

Usually the woods are fringed with low intervals and meadow behind. I am told that in the cellars of St. Paul there is stone enough to complete the building, and the cellar wall is often left perfectly perpendicular and smooth-faced [with this stone].

June 19. Thoreau says "the Illinois man calls the vine we see, yellow fanilla, from the color of its root." Speaking of wild pigeons, he says he finds from five to three young in its nests; says "they here feed on the pea-vines, which are swelling and sprouting (purple flowers)." He adds that the European hop will not flourish here.

Good river from New Ulm to —? Much more bare bluff and plain to-day, commonly bare. Great bends in this river; by the channel two hundred and fifty or three hundred miles to Redwood, but not more than one hundred and twenty miles by land in a straight line. We see ducks, a rail? the *Amorpha* in bloom, — a dark violet purple. The pigeons seem straggling here. The Illinois man once lived where he could hear

them at their roost, four miles off. At Fort Ridgely by evening. Noticed the azure larkspur (white), a plant which I saw at St. Paul; also the great ragweed (*Ambrosia trifida*, — commonly seen in the edge of the dry banks, — not yet out. This is said by Parry to be very luxuriant in the Mississippi bottom).

So attentive was Thoreau in his readings of the French Canadian writer, that what he said in his letter of June 26, 1861, in regard to that lively Gascon baron, Louis de L'Arce, lord of Hontan and Erleich, may here be cited, since he was probably right in his guess:

In short, the Minnesota River proved so very *long* and navigable, that I was reminded of the last letter or two in the Voyage of the Baron la Hontan (written near the end of the seventeenth century, I *think*), in which he states that, after reaching the Mississippi by the Illinois or Wisconsin, — the limit of previous exploration westward, — he voyaged up it with his Indians, and at length turned up a great river which he calls “Long River.”

He relates various improbable things about the country and its inhabitants; so that this letter has been regarded as pure fiction, or, more properly speaking, a lie. But I am somewhat inclined now to reconsider the matter.

The recent republication at Chicago by that diligent and accurate editor, Mr. Thwaites of the Wisconsin Historical Society, of La Hontan's book (mostly written between 1684 and 1695, though not published in Holland and England till 1703 and later) allows us to see what this precursor of St. John de Crève-cœur and Henry Thoreau really meant by his fiction. Having an idle winter at Mackinaw, he may have journeyed in part through Green Bay and the Wisconsin River, as he said; and then made up from the accounts of others, *voyageurs* and Indians, his notice of the Long River, which does seem to agree with what is now known of the situation of the Minnesota River, though not of its depth, direction, or inhabitants. These particulars he invented or exaggerated from the reports of his informants. He was an

observer as exact as Thoreau when he chose to be veracious ; and his description of Thoreau's puzzle, the *Spermophile tridecemlineatus* (see p. 36) is not only accurate but amusing. It is the ground-squirrel of to-day, but he calls it the "Swiss squirrel," and says :

"These squirrels are little animals resembling little rats. The epithet of 'Swiss' is bestowed upon 'em in regard that the hair which covers their body is streaked with black and white, and resembles a Swiss's doublet ; and that the streaks make a ring on each thigh, which bears a great deal of resemblance to a Swiss's cap."

On the night of the 19th the steamboat lay by at Fort Ridgely, starting from there at four A. M. and reaching the point desired, the Lower Sioux Agency, at nine o'clock in the forenoon, at Redwood, where they remained a day or two. And here may be quoted the description of the voyage given by Thoreau in his letter :

Baron la Hontan spoke of a great river coming in from the west, which he called "La Rivière Longue ;" it is indeed very

long and navigable. It is eminently *the* river of Minnesota (for she shares the Mississippi with Wisconsin) and it is of incalculable value to her. It flows through a very fertile country, destined to be famous for its wheat ; but it is a remarkably winding stream, so that Redwood is only half as far from its mouth by land as by water. There was not a straight reach a mile in length as far as we went ; generally you could not see a quarter of a mile of water, and the boat was steadily turning this way or that. At the greater bends, as at the Traverse des Sioux, some of the passengers were landed, and walked across, to be taken in on the other side. Two or three times you could have thrown a stone across the neck of the isthmus, while it was from one to three miles round it.

It was a very novel kind of navigation to me. The boat was perhaps the largest that had been up so high, and the water was rather low ; it had been fifteen feet higher. In making a short turn we repeatedly and designedly ran square into the steep and soft bank, taking in a cartload of earth, — this being more effectual than the rudder to fetch

us about again ; or the deep water was so narrow and close to the shore that we were obliged to run into and break down at least fifty trees which overhung the water, when we did not cut them off; repeatedly losing a part of our outworks, though the most exposed had been taken in. I could pluck almost any plant on the bank from the boat.

We very frequently got aground, and then drew ourselves along with a windlass and a cable fastened to a tree; or we swung round in the current, and completely blocked up and blockaded the river, — one end of the boat resting on each shore. And yet we would haul ourselves round again with the windlass and cable in an hour or two; though the boat was about one hundred and sixty feet long, and drew some three feet of water, — often water and sand. It was one consolation to know that in such a case we were all the while damming the river, and so raising it. We once ran fairly into a concealed rock, with a shock that aroused all the passengers. We rested there, and the mate went below with a lamp, expecting to find a hole, but he did not. Snags and sawyers were

so common that I forgot to mention them. The sound of the boat rumbling over one was the ordinary music. However, as long as the boiler did not burst, we knew that no serious accident was likely to happen.

Yet it was a singularly navigable river ; more so than the Mississippi above the Falls of St. Anthony ; and this is owing to its very crookedness. Ditch it straight, and it would not only be very swift, but would soon run out. It was from ten to fifteen rods wide near the mouth, and from eight to ten or twelve at Redwood. Though the current was swift, I did not see a “rip” on it, and only three or four rocks. For three months in the year I am told it can be navigated by small steamers about twice as far as we went, or to its source in Big Stone Lake. A former Indian agent told me that at high water it was thought that such a steamer might pass into the Red River (of the North). The last of the little settlements on the river was New Ulm, about a hundred miles this side of Redwood. It consists wholly of Germans. We left them a hundred barrels of salt, which will be worth something more when the

water is lowest, than at present. Redwood is a mere locality, — scarcely an Indian village, — where there is a store, and where some houses have been built for the Indians. We were now fairly on the great plains; and, looking south and after walking three miles that way, could see no tree in that horizon. The buffalo was said to be feeding within twenty-five or thirty miles.

Although the Indian Council and the several payments were to continue three days, the *Frank Steele* only waited at Redwood a single day. Thoreau returned on her to St. Paul, and soon found himself at Red Wing, much below St. Paul. He occupied himself at the Indian station quite as much, apparently, with the plants and trees as with the red men. Almost the only mention of them in his Notes was to describe their way of lighting their pipes; this he did with the help of his communicative friend, the “Illinois man,” and thus it runs:

Indian strike-fire. Take a little punk, — the Illinois man says from the white maple,

— and hold it flat against a flint ; then strike across the edge with a steel ring, and put the ignited punk on or in the pipe.

The proceedings of the first day among the Indians were witnessed by Thoreau, however, and thus are related by him in the long letter already quoted, and he sometimes dwelt upon them in conversation with his friends Channing and Daniel Ricketson, whom he visited for the last time at New Bedford after his return to Concord, and before the summer of 1861 was ended. He says :

A regular council was held at Redwood with the Indians, who had come in on their ponies ; and speeches were made on both sides through an interpreter, quite in the described mode ; the Indians, as usual, having the advantage in point of truth and earnestness, and therefore of eloquence. The most prominent chief was named Little Crow. They were quite dissatisfied with the white man's treatment of them, and probably have reason to be so. This council was to be continued for two or three days, — the payments

to be made the second day; and another payment, to other bands a little higher up, on the Yellow Medicine, a tributary of the Minnesota, a few days thereafter. In the afternoon the half-naked Indians performed a dance at the request of the Governor, for our amusement and their own benefit. Then we took leave of them, and of the officials who had come to treat with them. In the dance were thirty men dancing and twelve musicians with drums, while others struck their arrows against their bows. The dancers blew some flutes, and kept good time, moving their feet or their shoulders, sometimes one, sometimes both. They wear no shirts. Five bands of Indians came in, and were feasted on an ox cut into five parts, one for each band.

This was in the afternoon of the 20th of June. That night the steamer lay by, half-way between Redwood and Fort Ridgely, where Thoreau heard the whippoorwill, and his Illinois oracle told him it is the female that makes the note. On the 21st they reached New Ulm on the return voyage, just

before dinner. At Redwood Thoreau and Mann had found these plants:

A broad-leaved sedge on the slope of the river-bank; a smooth, parsnip-smelling plant in a ravine. On the slope, too, a tall, rather loose-spreading paniced grass, the *geum*, not yet out; another, with yellow petals shorter than the calyx, slightly notched on the right. On the prairie a coarse (greenish white) boraginaceous plant (*Onosmodium?*); a yellow composite flower (three feet high, some of it), eight-rayed. I find no account of it in *Gray*. A much-branched, hard-stemmed, linear-leafed green plant was found on the prairie, — a *pinos*, no doubt. Two whitish, wormwood-like plants on the prairie, — broader and entire-leafed lower down. The common spiked grass of the prairie, and a more drooping kind. (*Kæleria cristata*, or perhaps *Eatonia obtusata*.)

The large-flowered Rudbeckia-like flower of prairie, *Heliopsis lævis*. The delicate wormwood-like, five-lobed blue-corollaed, scented and reniform plant on the slope, under other weeds. Mann brought from farther

on the prairie a tall, somewhat *Heuchera*-like flower, two feet high or more; also a lucern-like vetch, and a small *Hypoxys*-like flower. A very large-stemmed blue violet, — *Viola Canadensis*, white or whitish.

At New Ulm, June 21, eight largish and irate yellow dogs, and some smaller. That night we lay by half the night fifteen or twenty miles above Mankato. Our boat had pushed over a tree and disturbed the bats, which were beaten out. We take in a cartload of earth, then swing round the river-bars, and pull off by the capstan.

June 22. Some fifteen miles below Mankato, we were detained by a fog in the last part of the night. This was the day when the captain ran his boat on a rock near Mankato.

We see the same birds along the river as in Concord, except the grebe and the Turkey buzzard.

At this point (Red Wing, on his return journey) we may introduce the table of distances along the Mississippi River made by Thoreau on his journey up and headed by him :

DISTANCES FROM LA CROSSE TO ST. PAUL

La Crosse to Dakota,	12	Central Point,	2, 117,
Richmond,	6, 18,	Maiden Rock,	3, 120,
Trempe à L'Eau,	5, 23,	Florence,	3, 123,
Homer,	10, 33,	Westerville,	3, 126,
Winona,	7, 40,	Waconta,	12, 138,
Fountain City,	12, 52,	Red Wing,	6, 144,
Mount Vernon,	14, 66,	Thing's Landing,	7, 151,
Minneiska,	4, 70,	Diamond Bluff,	8, 159,
West Newton,	8, 78,	Prescott,	13, 172,
Alma,	7, 85,	Point Douglas,	1, 173,
Wabasha,	10, 95,	Hastings,	3, 176,
Nelson's Landing,	3, 98,	Nininger,	4, 180,
Reed's Landing,	2, 100,	Grey Cloud,	8, 188,
North Pepin,	8, 108,	Pine Bend,	4, 192,
Johnstown,	2, 110,	Red Rock,	8, 200,
Lake City,	5, 115,	Kapona,	3, 203,
	La Crosse to St. Paul,		208.

This table seems to have been carefully made from a river-chart, some days after his arrival at St. Paul. The names of some landings have changed since 1861.

Arriving at Red Wing on his return journey, at two P. M. he at once began to botanize (June 23), while awaiting letters from Concord; and his notes inquire:

What is the upright, alternate, entire, elliptic-leaved, and sessile-leaved plant, con-

siderably hairy, with six petals (?) white, no sepals, six stamens and six styles, about one-third of an inch in diameter, on Barn Bluff? (Mann's). What the orobanche-like plant, *Aphyllon fasciculatum*, on the edge of the bluff? the same six-sepalled, grassy-leaved plant (*Zygadenus*) as at the Redwood prairie. Colchicum and mints; *Melanthium*, in the next wet place, on the prairie, and the dry top of the bluff. On this top a small, pale purplish or pale violet lobelia, with toothed leaves.

On the bluff top, perhaps the green milkweed; the wild red cherry, with fruit partly in a raceme: the *pulsatilla* still in bloom. Probably the same larkspur as up in Minnesota. *Lepidium* one of the commonest weeds about in the towns and on the hills. The dense spike-flowered, yellowish-white corollaed plant (*Castilleja sessiliflora*), with long, two-lipped (two-inch long) and four-toothed or divided green calyx, with four stamens and one pistil, grows on the side of the bluff.

This was the prairie variety of the Painted Cup, common in Concord at the foot of the

hill Annursnac, in its New England variety, but in this western form not before seen by Thoreau.

The fine southernwood or wormwood scented plant is very plentiful on the bluff side. Also one of the new senecios, with stem leaves pinnatifid, out sometimes. A little plant gone to seed with white pods, and a small white cruciferous plant was also on this side.

In a marshy spot behind our hotel, up a slope, was a large, podded, rose-colored flower.

I had seen the *common* strawberry at Redwood, and found the butterweed a prevalent weed where the Indians had cultivated.

Appropriate to this mention of cultivation by the Indians, may be quoted what the Swiss naturalist, Édouard Desor, told Thoreau in 1850 about the Indian ignorance of specific names for the many wildflowers by which they were surrounded in their prairie or woodland wigwams. Many years ago Elery Channing copied from Henry's *Journal*, 1850, p. 145, this passage into a fly-leaf of

Gray's *Manual* of 1848, — the same textbook which Thoreau used in 1861: "Desor, who has been among the Indians at Lake Superior this summer, told me the other day that they had a particular name for each species of tree (as the maple), but they had but one word for flowers. They did not distinguish the species of the last." In the lack of such specific distinctions they were like the peasants of Attica, when I rambled about Greece in 1890 and 1893. Show them a common wildflower and ask them its name in Greek, these compatriots of Theophrastus could only reply, "Oh, Loulouthia," — Posies.

June 24, at Red Wing. Went in the forenoon to the bluffs south and southwest of the town. Found a larger species of *Tradescantia* on the sharp-ridged bluff; also azure larkspur, and especially a kind of *Acerates* or hornless milkweed, on the same. *Potentilla anserina* in a marsh by the Mississippi. A coriander-like plant in fruit on the sharp-ridged bluff; and on the same the grass with the long beard and hard, sharp point, *Stipa spartea* (porcupine grass); the side of the same

bluff, *Lithospermum hirtum* (hairy puccoon), larger than most species; and *Rudbeckia hirta*, not long.

On the south bluff, at the base, *Onosmodium Carolinianum* (seen before), in bloom, with bees on it. A narrow-leaved *Erigeron strigosum*-like? Common cistus. *Sonchus*-like yellow flower on the top of the south bluff.

Under the Barn Bluff, *Cystopteris* abundant, *Scutellaria diphylla* and a slender, lyrate, red-leaved crucifer with white flower. That smooth, palmate-leaved (with linear divisions), single-headed, yellow-flowered plant not yet out,—very common about Red Wing and before, must be *Coreopsis palmata*. My *Zygadenus* is from a coated bulb, but has channelled leaves with distinct veins, is found on high and dry land, and is from one to three feet high.

There is a double path on this bluff, made by two, one a little higher than the other, and fainter, ceasing near the end of slope; it is like a regular two-wheel track, three feet apart, the lower one the deeper. There are two Indian mounds,—the old, say one

rod by three feet,—and the new, two rods by four feet, eight or ten years old.

June 25. Rain in night and forenoon. I see Professor Wilson. 26. Walk up the river in the forenoon, and see a small, cut-leafed, five-petalled, spreading blue flower (*Verbena bracteosa*?), and the dragon-head mint. A species of *Helianthus*. At two P.M. we leave Red Wing in the *War Eagle* for Prairie du Chien, some two hundred miles distant. Mrs. Upham of Clinton with us; she has a cousin Clifton at Bedford, near Concord. The *War Eagle* draws two and one-half feet of water. Lake Pepin bore northeast, then east? by sun and compass. We reached Prairie du Chien, down the Mississippi, about nine in the morning of June 27. Thence by cars to Milwaukee.

In regard to Red Wing I was told that a hundred rattlesnakes a day could have been killed about Barn Bluff six or seven years ago; they were very thick on the hillsides then. There were three kinds in all, my informant said. Yet nobody had been killed that he knew of, though several were bitten. They were made sick for some time; a squaw,

for instance, last summer. I saw a peak at Hastings from Red Wing, which has a graveyard cross on it.

From Prairie du Chien Thoreau posted swiftly across Wisconsin to Milwaukee, and there embarked on a steamer for Mackinaw, — the propeller *Edith*. He noted, in the six miles up the valley of the Wisconsin River, that it was broad and shallow, with bordering bluffs two or three miles apart. He glided by the picturesque State Capitol at Madison between its lakes, which he noticed, but gave his chief attention to the flowers of the rolling prairies.

Abundance of mullein in Wisconsin. Great abundance, too, of the tall spikenard, — also the Rudbeckia, the red, white, and yellow lily, the blue flag, and the white water-ranunculus. Milwaukee, of all the settled places, has the best harbor on Lake Michigan. There are shoals and rocks up the lake, but good harbors at Traverse Bay and behind islands on the northeast side. The lake is ninety miles wide and we cannot see across

it ; but we see the land loom sometimes on each side, from our steamer in the middle. At ten in the morning of the 29th we enter the Carp River. We had passed the Manitou Islands in the morning, on the left, and saw the Fox Island in the offing. Ran out of Carp River and left there at noon, steering N. by W. to Beaver or Mormon Island, with its fishing huts and Mormon homes, and leaving there at evening we reached Mackinaw at two A. M. on June 30.

Thoreau lodged at the "Mackinaw House," remaining there several days, and both botanizing and working up his botanical observations at earlier points on his journey. This then will be a convenient halting-place to take up the work which he did in reading and botanizing from his long halting-place at St. Anthony and St. Paul. Finding libraries there, though not very extensive ones, so early in Minnesota's history, he noted down facts and observations made by earlier explorers than himself.

According to Parker's *History of Minnesota*, there were but three white families in

St. Paul in 1847; in the spring of 1857 there were ten thousand inhabitants. "In 1823 the Columbia Fur Company established a post there, and changed the mode of transporting supplies and making exchanges, — abandoning the Mackinaw boats, and introducing the use of carts instead, which are still employed by the Red River traders of the North." Of Redwood, three hundred and sixty-six miles from St. Paul, it is said: "This being the lowest point on the Minnesota River that could be reached without passing through timber, that place in a short time became a depot for the entire trade of the Upper Sioux (about Yellow Medicine, eighty miles further up), and a general rendezvous for Indians near and remote." A St. Paul writer calls the Redwood Indian wigwams, "tepees," and thinks there were five hundred Indians there at the time of our visit; they danced the "Monkey Dance." Waconta was there, but the principal speaker was Red Owl.

Not far off a man dug into an Indian mound, and found a skeleton, which crumbled on coming to the air. Also part of an

earthen pot, and a stone "of blue granite" as he said, — which might have been used in skinning game.

The first white man's house was built at Redwood seven years before [in 1854], and in 1855 there were often as many Indians there as there are whites now. The principal capital there, and in St. Paul, is invested in groceries, in dry goods, and Indian goods.

On June 1, I copied from the *Annals of the Minnesota Historical Society for 1853*, at St. Paul, the following (No. 4.): "Previous to the year 1695, the canoe laden with trinkets, tobacco, and knives had entered the Minnesota, or 'sky-tinted' River; and in 1700 trading houses were erected on the banks of the Mankato or 'Blue Earth.'" Professor Keating was the historian of Long's Expedition to the Minnesota and Red Rivers in 1823, and is said to have written an interesting account of the Dakota Indians in it. Neill says that one-third band of the M'dewakaston is called (1853) "Pegata-tonwe" (Island [Inland?] People), and so called because until a very few years since

they lived at Lake Calhoun. Their principal chief was —— or “Sky-man;” another chief of this band was called, —— “My Head Aches.” John W. Bond says that the Mississippi generally closes in December early, and opens the latter part of March. The latter part of May and early in June is the usual seeding-time. They are thus considerably later than we are in Concord. “The summer here is very cool and pleasant, with a fine breeze at all times, blowing mostly from the west, southwest and south.” In the *Annals* of the same Society for 1856, Professor Neill of Minnesota says:

“The discoverer of the stream of this name (Minnesota) was Le Sueur, and in the first map that delineates the stream, which was issued in France more than a century ago, it is marked as the ‘Minisota.’ This is a Dakota word, and means as above indicated, ‘sky-colored.’ All waterfalls in the Dakota tongue are called ‘Ha-ha’ — never ‘Minne-ha-ha’ (as Longfellow has it). The ‘h’ has a strong guttural sound. The word is applied because of the *curling* of the waters. The verb ‘I-ha-ha’ primarily means to curl,

— secondarily, to laugh, because of the curling motion of the mouth in laughter.”

Governor Ramsey says that Le Sueur in 1700 first explored the Minnesota, part way, looking for copper, etc. He was the first Indian trader there, too, and his journal describes the Dakotas accurately. Carver was there in 1775, Cass in 1820, and Schoolcraft in 1832. Since then Nicollet and Fremont, Long and Keating and Pike, — the latter perhaps in 1802. Neill says: “Allouez in 1665 first mentions ‘the great Messipi.’ Hennepin ascended it in 1680, but Marquette had, seven years before, descended from the Wisconsin. Hennepin calls the lake, ‘Lake of Tears.’ Le Sueur first mentions the lead mines at Galena. William Morison claims to have discovered Lake Itasca in 1804, long before Schoolcraft,” etc.

In the *Historical Collections of Minnesota for 1860* they mention Long’s voyage in July, 1817, now first published at Philadelphia. He calls the bluffs above Prairie du Chien and elsewhere four or five hundred feet high. “The bluffs are generally between four and five hundred feet, cut with numer-

ous ravines, and exhibiting other signs of being the commencement of a very hilly and broken inland country." He could not for a long time, nor till he got to Black River, see both sides at once, on account of islands. "The bluffs are intersected by numerous ravines, which divide them into knobs and peaks, towering four hundred or five hundred feet above the level of the river." On the third day, Long came to some Indians who had collected nearly half a bushel of turtles' eggs; and the next day to the Bluff Island. "It is remarkable for being the third island of the Mississippi, from the Gulf of Mexico to this place, that has a rocky foundation similar to that of the neighboring bluffs, and is nearly the same altitude." He found the French name "*Le montaigne qui trempe de l'eau.*" Near by he ascends Kettle Hill, with piles of stone on it. He first tells the story of the Lover's Leap, from his Indians, and afterward of the woman and child who went over the Falls of St. Anthony. He calls the bluff at what was afterward Fort Snelling one hundred and twenty feet high. This fort was begun in 1820. Near the St. Croix

the bluffs, he says, are from one to two hundred feet high, and adds, "The Mississippi above the St. Croix emphatically deserves the name it has acquired, which originally implied 'Clear River.'"

Different explorers give different altitude for the same bluffs. Long thought the bluff at Red Wing about 400 feet, Nicollet made it 322, Owen about 350, but the Red Wing city survey, more exactly "345¹/₂ feet above the level of low water." According to Nicollet, the highest hill or bluff is at Richmond in Winona County, which he makes 531 feet high. Long found the site for Fort Snelling, and planned Fort Crawford at Prairie du Chien. He speaks of the precipices of red sandstone(!) at the top of the bluffs in Dubuque.

Pike's Journal for 1805 is in the *Minnesota Annals for 1856*. He there tells in few words that story of the Lover's Leap, and says that his was the first (white man's?) canoe that crossed the portage at St. Anthony's Falls; for he went to what he thought the sources. Nicollet made a scientific and important exploration in 1835; Catlin, later, disappoints

as a writer ; it is only with his pencil that he is good. In 1823 the first steamer came up as far as Fort Snelling. In 1849 Minnesota was separately organized as a Territory. In a small historical sketch of St. Anthony and Minneapolis, published at St. Anthony in 1855, I find that Frank Steele, for whom our steamer to Redwood was named, was in 1837 the first white man who “fleshed his axe in the unbroken wilderness,” and commenced improvements in Minnesota. Then he built a house at St. Anthony. In 1848 there were but three houses and a block-house there ; Minneapolis was settled a few years later.

On the 5th of June I went to Mrs. Hamilton's ; the house (in Richfield) built seven years ago, in 1854. Around it was abundance of wild artichoke. She says the wild apple grew then about her premises ; her husband first saw it on a ridge by the shore of Lake Harriet. They had dug up several trees and set them out, but all died. (The settlers also set out the wild plum and thimbleberry, etc.) So I went and searched in that very unlikely place, but could find

nothing like it; though Hamilton said there was one then three feet higher than the lake. But I brought home a thorn in bloom, and asked if that was it? Mrs. H. then gave me more particular directions, and I searched again faithfully; and this time I brought home an *Amelanchier* as the nearest of kin — doubting if the apple had ever been seen there, — but she knew both those plants. Her husband had first discovered it by the fruit, but she had not seen it in bloom.

We then called in Fitch and talked about it; he said it *was* found, the same they had in Vermont (?); and directed me to a Mr. Grimes as one who had found it. He was gone to catch the horses, to send his boy six miles for a doctor on account of a sick child, evidently a surgeon and an inquiring man.

The boy showed me some of the trees he had set out this spring, but they had all died, — having a long tap-root, and being taken up too late. Then I was convinced by the sight of the just expanding though withered leaf, and plucked a solitary withered flower, the better to analyze it. Finally I stayed and went in search of the tree with the

father, in his pasture, where I found it first myself, — quite a cluster of them.

Diverging a little from his direct line of travel, and looking forward to what he could not live to see, Thoreau, while having access to the Minneapolis and St. Paul libraries, copied a passage or two bearing on the future overland way to the Pacific coast. It was three years after this, and two years after his death, that his friends of the John Brown family left their forest home in the Adirondacs, and crossed the Plains to California, travelling slowly with ox-teams, as the early settlers in Ohio and Illinois had done, half a century before. But in 1864 the necessities of war had hastened the construction of a railroad to California, and the preliminary reports, suggested by Benton, the Missouri statesman, which attracted Thoreau in 1861, were everywhere read with interest. He copied on the back of Mrs. Mann's note, already quoted in full, what follows :

Pacific Railroad Reports (Stephens) Vol. 12, Part 2. J. G. Cooper on the Botany of the Route.

“A backwoodsman, with his axe alone, can in a few days make out of one of these cedars (Oregon cedar, — *Thuia gigantea*) a comfortable cabin, — splitting it into timbers and boards with the greatest ease. This the Indians did, long before an iron axe was known among them, using stone hatchets and wedges of the crab-apple (*Pyrus malaris*). They also make from its trunk those celebrated canoes, which have an elegance and lightness superior to any other, except the fragile shells of birch-bark, used farther north.”

“The Oregon crab-apple (*Pyrus rivularis*) grows sometimes twenty feet in height and one in diameter; but usually forms low, tangled thickets, equal to the tropical mangrove in impenetrability; . . . its fruit, though small, is abundant and well-flavored.”

Dr. Cooper says that the salmon far up the Columbia River “have every appearance of having travelled all the way from the ocean. Their fins and tails were so worn down as to be almost useless; their color had changed to a dappled mixture of red

and white, and they were emaciated so as to be a mere mass of skin and bone.” (It was said that they did not feed in fresh water.) The author of the Zoölogical Report quotes also from Harmon’s *Travels* (1820) as quoted by Richardson. Harmon says of the salmon of British Columbia :

“For about a month they come up in crowds, and the noses of some of them are either worn or rotted off; and the eyes of others have perished in their heads; yet in this maimed condition they are surprisingly alert in coming up rapids. The maimed fish are generally at the head of large bands, on account of which the natives call them *mee-oo-tees* or chiefs. The Indians say that they have suffered these disasters by falling back among the stones when coming up difficult places in the rapids which they pass.”

This quotation seems to have little connection with the daily journal, and may have been made in Concord before starting, with the idea that Thoreau would go farther west on the Oregon Trail than he had either time or strength for, upon trying. June 13, before leaving Mrs. Hamilton’s, which he did

on the 14th, after ten days in the region of Lakes Harriet and Calhoun, he investigated the prairie-squirrel more closely than before with Dr. Anderson. Thoreau continues :

I see a scum on the smooth surface of Lake Harriet, three or four feet from the shore, of the color of the sand of the shore, — like pollen and lint, which I took it to be. Taking some of it up in my hand, I was surprised to find that it was the shore-sand ; sometimes pretty large grains, a tenth of an inch in diameter, but mostly a twentieth or less. Some were dark-brown, some white or yellowish, — some minute but perfectly regular oval pebbles of white quartz. I suppose that the water, rising gently, lifts up a layer of sand, slightly cemented by some glutinous matter ; for I felt a slight stickiness in my hand, after the (gravel or) sand was shaken off. It was in irregular oblong patches of scum three or four inches long.

He next records a large poplar, near the same lake, ninety feet high and seven feet

in circumference. Before returning to St. Paul he called on Dr. Anderson, and reported him as having a rattlesnake, and another kind larger, a light-brown snake found on the prairie; also he detected the doctor in a botanical error.

Dr. Anderson said that the anthers of the swamp *Vaccinium* were awned, which would put it with the *Uliginosum* section!! I find them not so, and the styles hairy; whence he places it apparently with *V. oxycoccus*, which has "anthers awnless" according to Gray; while the *Uliginosum* has, by the same authority "anthers 2-awned on the back." Q. E. D.

Returning to St. Paul, Thoreau walked in the afternoon of June 15th along the river-shore south; but in the forenoon had noticed:

From St. Anthony to St. Paul, *Pentstemon grandiflorus*, the very showy bellflower abundant on the bank of the Mississippi, with the same on the sandstone, along with the tall long-leaved (and sub-ovate) variety of *Cam-*

panula rotundifolia. The little brake grew in clefts of the sandstone; and there were many bank-swallows' nests in and under the pillared and turreted (coped?) sandstone, so hard that you could not make the hole with your hand,—or would not. . . . Dock, perhaps *Rumex altissimus* (the prevailing kind up and down the Mississippi), grows in immense quantities, three to six feet high, for miles on the low sand and clays of the flat shore. What kind? Its leaves are a foot or more long, narrow, and more or less wavy; its root yellow. Also I saw a smaller red-stemmed kind, with long pedicles and quite different. Between the docks, the clotbur-like plant, and the bittersweet vine,—all very abundant.

What was the fine, diffusely-branched crucifer (cardamine-like), with lower lyrate leaves, white petals longer than calyx, pods convex and an inch or more long? An ash, with very smooth and bright-glowing, dark-green leaves stood above. The meek, reed-like *Veronica*. What was the broad-leaved, large crucifer, not in seed, two feet high, stem somewhat downy or hairy at base?

The bluff on the south side of the city from one hundred and fifty to two hundred feet (?) high. The *Pentstemon*, above-mentioned, was very abundant (the great bell-flower) and showy by the sides of the road soon after leaving St. Anthony. The common *Arabis* about Lake Calhoun and St. Anthony is a *Turritis* having two rows of seeds in each cell, winged and attached to the partition. The leaves are rather lanceolate or long, or linear-lanceolate, than ovate-lanceolate (but glaucous); some very slightly toothed. Petals (I think) twice as long as calyx; pods soon very shrinking, and not, as I notice, purplish. It answers therefore best to *T. stricta*, yet I think it is not like ours. The broad-leaved (lyrate) mustard-like plant (with remarkable turnip-scented straight root) under the cliff at St. Paul, just begun, with a now minute longish square pod, may be *Sinapis nigra*. Under the cliff I find the great Solomon's seal in flower (June 16) with six flowers. In the marsh east of St. Paul, *Mimulus Jamesii* (yellow flower), spreading in beds; and *Veronica Americana* blue-flowered. At the west end

of town, *Hedeoma hispida*, on a dry bluff-brow, a bright blue flower out, not odorous or like pennyroyal. What the boraginaceous plant, twelve to eighteen inches high, just fairly begun, at Nicollet's Island, and at St. Paul by the roadside, with the smell of hound's tongue? Apparently *Psoralea argophylla*, now a foot or two high, but not out, — silvery, silky-white all over.

We must be struck with the minute observation and nice description, only made for his own future use, which these botanical notes display. After leaving Minnesota he sums up in a special list, as seen by him at St. Anthony and Minneapolis, what he terms :

PLANTS I KNEW BEFORE, OR WE HAVE

Clematis Virginiana.

Anemone nemorosa ; do. *Virginiana* (common on Nicollet Island or in woods).

Thalictrum dioicum (common, very), do. *anemonoides*, and *Cornuti*, common.

Ranunculus Purshii (common) ; *abortivus* (very common), *recurvatus*, common.

Caltha palustris (common).

Aquilegia Canadensis (very common, though there are no rocks, and very large).

Actaea (common).

Sarracenia purpurea (common).

Sanguinaria.

Dicentra cucullaria.

Lepidium Virginicum (very common in and by roads).

Capsella (very common on prairie).

Viola blanda; *pedata* (very common on prairie, with *Delphinifolia*).

Viola cucullata (common); *pubescens* (quite common).

Moehringia (very common).

Tilia Americana (very common in large woods, away from rivers and on river banks; often prevailing).

Oxalis violacea (very common on prairie, and large).

Geranium maculatum (very common in woods and openings).

Rhus typhina (common, but *glabra* more so; *Toxicodendron*).

Vitis ampelopsis quinquefolia (common in woods not getting the sun).

Celastrus scandens (quite common).

Acer, sugar, very common; white, not common, except by rivers; red, apparently rare.

Clover, white most common near settlements, and red also.

Prunus, *pumila*; *Pennsylvanica*; *Virginiana* (common); *Americana* (pretty common).

Fragaria (very common, one kind).

Rubus triflorus (common); *strigosus* (not common).

Rosa.

Cratægus, *Crus galli* (?), probably *tomentosa*.

Amelanchier, a round-leaved variety (common).

Ribes Cynosbati (very common, — the common one); *floridum* (common).

Swamp-saxifrage (common in meadows).

Thaspium (exceedingly common, both kinds).

Cicuta maculata.

Osmorrhiza (common on Nicollet Island, and both kinds in the marsh at Lake Calhoun).

Heracleum lanatum.

Aralia nudicaulis (common); *racemosa* (very common).

Cornus Canadensis ; *stolonifera* (common);
paniculata (common); *alternifolia* (common).

Sambucus pubens (common).

Viburnum lentago (common); *Opulus*
(common).

Galium lanceolatum, and small or *trifidum*.

Antennaria plantaginifolia (very common
on prairie).

Senecio aureus.

Taraxacum (quite common). Are there
two,—a larger and smaller? Very luxu-
riant at Mrs. Hamilton's.

Nabalus, What kind?

Common cranberry (common).

Vaccinium, probably a variety of *corymbo-
sum*; (rare one in a swamp).

Plantago maior (very common on prairie,
in paths, etc.).

Trientalis Americana.

Utricularia vulgaris.

Veronica arvensis (?) (though very small).

Castilleia coccinea (?) (quite common).

Pedicularis Canadensis (common).

Mentha Canadensis (common).

Monarda (?) (very common).

Buckbean (quite common; in full bloom,
May 31).

Black ash (common).

Asarum.

Polygonum aviculare (very common in
streets and yards); *convolvulus*.

Sorrel.

Comandra.

Elm (common white), very common in
large woods and by the river.

Elm, corky white, at Ha-ha Falls.

Elm, slippery, very common, and tall and
slender, and large, — longer-leaved than ours.

Celtis (?).

Laportea (?) *Canadensis*.

Butternut (quite common, tall and slen-
der, in woods; also a hickory).

White oak (one): swamp white oak (?);
scarlet oak (common); red not very rare;
common near Lake Calhoun.

Corylus Americana (very common in oak
openings).

Ostrya (very common and large, almost
prevailing in some woods).

Canoe birch common; yellow do. rare.

Salix; *tristis* (very common in oak open-

ings); *discolor*; *rostrata* (common, very, and large); *nigra* (common by streams and great rivers); *lucida* (common); *longifolia* (very common by streams, on sandy islands, and the flat shore of rivers).

Populus grandidentata (not rare, very common); *tremuloides* (quite common); *monilifera* (common by rivers and streams); *balsamifera* (not common about Minneapolis).

Pinus Strobus, rare.

Larch (common).

Juniper *repens* and Red Cedar (not common, the former in swamps).

White Cedar (?).

Arum triphyllum.

Typha latifolia (very common).

Iris versicolor (common).

Smilax herbacea.

Trillium.

Polygonum pubescens cernuum.

Smilacina racemosa; *stellata* (common); *bifolia*; *trifolia*.

Uvularia grandiflora.

Hypoxys erecta (common).

Amphicarpæa.

Three-leaved Solomon's-seal.

Nettle.

Catnip (not very common). Both kinds
of *Sambucus* very common.

Ordinary smooth wild rose (common).

Galium trifidum (common).

Desmodium acuminatum (common).

Cardamine rhomboidea.

Nodding Trillium.

Ranunculus flammula, which variety?

Smooth Gooseberry.

Portulaca.

Hepatica triloba, at St. Paul.

Potentilla Norvegica (accumbent).

Nasturtium hispidum (very common on the
dock-flat).

Hemp. White Water-Crowfoot, *Ranunculus aquatilis*, kindred to *R. flammula*.

Erigeron Canadense (Butter-weed).

Common Pigweed (*Chenopodium album*) or
crow-wings? (in groves).

Polygonum hydropiper. *Lilium* (red). *Hypoxys erecta* (Star-grass).

Naumburgia thyrsiflora.

Salix, probably *Torreyana*, with smooth
rind and double bud-scale.

Arabis racemosa (very common in woodlands and brush).

Corky white Elm (*Ulmus racemosa*).

Interrupted Fern (common more than the other, the small brake).

Maidenhair Fern (very common).

Scouring Rush. *Marchantia polymorpha*.

Arundo phragmites (very common in swamps and meadows). June grass.

Sumach (very common in open woodland and among brush).

High Blackberry, not very abundant.

Goldthread and smooth sumach, — the latter more common than the staghorn.

Yellow Star of Bethlehem. Thoroughwort.

Comarum palustre.

Salix pedicellaris (common in wet meadows).

Erigeron bellidifolium. Thimbleberry, not very common. Low Blackberry.

Pyrola elliptica; *secunda*.

Rum Cherry, small. Yellow Wood-sorrel (not nearly so common as the violet).

Osmunda cinnamomea. Coral-root. Sensitive Fern.

Silene (not sticky) *antirrhina*.

Rhamnus alnifolius, in swamps and marshes (May 28).

Curled Dock (not uncommon). Mal-
lows (in gardens). *Lonicera parviflora*
(common and in gardens).

Lanceolate Thistle (common). *Druba*
arabisans. *Arum triphyllum* (common).

Yellow Lady's Slipper (Cypripedium),
common in dry rocky woods. Said to be
three kinds of *C. spectabile*.

Veronica arvensis (common); *serpylli-*
folia.

Thyme-leaved Sandwort (*Arenaria ser-*
pyllifolia), very common everywhere.

Mitella diphylla; *nuda* (under *Arbor vitæ*
at base of steep bluff Mackinaw).

Two-leaved Solomon's-seal (common).

Linnæa (common). Large blue Flag
(abundant). Comandra (common).

Dandelion (very abundant even through-
out woods). Columbine. Plantain.

Cerastium viscosum (common, and perhaps
also *nutans*). Harebell. Cotton-grass.

Cursed Crowfoot (very abundant, espe-
cially in one place). Shepherd's Purse.

Potentilla anserina, even in high and dry land (common). Sorrel (not prevalent).

Cornus Canadensis, Canada Thistle. Choke-cherry. Red Elder (Mackinaw).

Viola cucullata; yellow. *Trientalis*. Cowslip, Dogbane, Mouse-ear (all common).

Lousewort Prunella, Pigweed, Sarsaparilla, wild Comfrey, Blue-eyed Grass.

Red Raspberry (not plenty). *Senecio vulgaris* (by houses). Orobanche (Mackinaw).

Ranunculus abortivus; *recurvatus*; *sceleratus* (as above, Cursed Crowfoot) (Mackinaw).

Arbutus Uva-ursi. Alternate Cornel. An *Arabis*? (yellowish-leafed, in woods).

TREES FOUND AT MACKINAW

Arbor vitæ. Balm of Gilead. Beech (inland and elevated), Canoe Birch.

Ash (especially on wooded steeps).

Appletree (fruit very small, yet I saw wild scrubs). Hop Hornbeam.

Fir. Larch. Maple, sugar and white.

Oak, red, and scarlet.

Pinus resinosa (Red pine); White pine

(a little); *Populus grandidentata*; *Populus tremuloides*. Spruce.

Yellow Birch.

SHRUBS

Amelanchier (not very abundant).

Prickly Gooseberry. Juniper *repens*.
Sweet Briar. Thorn.

(Several of these trees and shrubs were found at Mackinaw, but rare farther west).

HERBS, ETC., FOUND AT MACKINAW

Chickweed (*Cerastium*). Buttercup (tall), very abundant. Hemlock parsley.

Henbane (very common and large).
Hound's-tongue — most conspicuous and prevailing large weed.

Euphorbia (?). Whiteweed, even throughout woods abundant. Yarrow. Herb Robert. Mullein.

Here this list seems to end, although it is evidently not complete. It appears to have been revised by Thoreau not only at St. Paul, but again after he reached home, judging by the words here and there interpolated. Its

arrangement is peculiar, being neither alphabetical nor by any obvious form of classification, — as if he had entered the plants as was most convenient in consulting his *Gray's Manual of Botany*, the book usually employed for daily use by the Concord botanizers. Ellery Channing's copy, which I have consulted in revising this list, is full of notes and dates of the blooming of these plants, and occasionally a remark as to their habit. Thus Channing says of the common knot-grass: "How singular that the *Polygonum aviculare* should grow so commonly and densely about back-doors, where the earth is trodden, bordering on paths, hence properly called 'Door-grass.' I am not aware that it prevails in any other places."

But it seems this is quoted from Thoreau, and the date of the remark is August 26, 1859, two years before this western journey.

While collecting these plants, and others new to him, Thoreau made interesting remarks, or raised questions to be settled afterwards. Thus, on the 3rd of June, when going to Minneapolis, and the two lakes, Calhoun and Harriet, where he botanized for

several days, he notes that he found the *Viola delphinifolia* and the *pedata*, both common on the prairie thereabout, "without the yellow eye in the centre, but with the long petals looking both ways, and the convex prominent lower petal of the *pedata*." There also he found the wood-strawberry, and a *Lonicera* ten feet high, with a "dull purple corolla, gibbous at base," yet corresponding to Gray's description, though not climbing. "My *Lonicera* is evidently the *parviflora*, — the deep dull purple or crimson variety, but from two to eighteen feet high, with its corolla from three-fourths of an inch to an inch long, and fragrant leaves not downy."

He hears the plaintive note of the oriole, suffers from myriads of mosquitoes, and sees plenty of wood-ticks; hears also the note of the black and white creeper, and the rasping note of the fringilla, — the bird nearly six inches long, on the bur-oaks in the openings. The *Spermophilus Franklinii* is seen alive (as well as one which a boy shot, "with much wheat and a stony fruit in its pouches"). The living specimen he finds "quite gray-squirrel-like and handsome." Where once

an Indian Mission stood the ground is now "overgrown with sumach and covered with gopher heaps." At half-past three in the afternoon "a horned lark soared very high over the prairie, and sang the same twittering note" heard so often by the Assabet. The next day he hears the cuckoo, sees a young eagle eating a blue jay, and notes that the *Arabis lævigata* is there the common one.

Thus does this poet-naturalist, making his long last journey ostensibly in search of restored health, forget to record what is happening to his failing body, but devotes his hours as at home to the most minute and faithful record of what Nature had to show this favorite child of hers.

It will be noticed in the account of travelling expenses, soon to be given, that no dates occur between May 31 and June 19. During most of this time Thoreau was botanizing and fixing the dates of the blossoming of plants, or acquiring other facts in natural history which he thought important, however trivial they may seem to the casual reader. Thus, on the 5th of June he was at

Mrs. Hamilton's, and on that day sees, just out, the figwort, *Scrophularia nodosa*, and *Osmorrhiza longistylis*; on the next day the *Heuchera hispida*, on the prairie ("now in bloom at the East" he notes); the *Carum Carui*, "just fairly out," the *Senecio tomentosus*, the *Platanthera bracteata* (large-bracted green orchis), and in a wood, *Amianthium*, "especially a large form, but also a small form." In the afternoon of the same day, June 6, he finds "a wild pigeon's nest in a young bass tree, ten feet from the ground, four or five rods south of Lake Calhoun; built over a broad fork of the tree, where a third slender twig divided it, and a fourth forked on it." To make this clearer, he drew on the page a slight sketch of the branching basswood, and then went on: "Built of slender hard twigs only, so open that I could see the eggs from the ground, and also so slight I could scarcely get to it without upsetting it. The bulk of the nest was six inches over; the ring of the concavity three-quarters of an inch thick, but irregular. At first (seeing the bird fly off) I thought it an unfinished nest."

Thoreau would hardly have been more particular in describing the form and furniture of an Indian hut or a Minnesota lumberman's shanty. He next attends to that foe of the wild pigeon and the lake fish, the woodcutter :

Lumberers came here this evening to spear fish. They tell me that the lumber in the forest above is more knotty than that cut in Maine; but the river is nothing, for rapids, compared to the Penobscot. One foot of snow here (which is about the average on a level, so that they never have to shovel out) makes better sledding in the Minnesota pine woods than the four feet of the Maine woods, this country is so much more level.

These men cut the larch for fish-poles. In this night a thunder-shower at distance. The next day, June 7, reptiles claimed his attention, as well as plants. He saw a snapping turtle, and a day or two later a soft-shelled turtle worth describing :

It had a shell that was brown, spotted with darker brown, and with a lighter-brown edge;

very webbed feet and a peculiar snout, three sixteenths of an inch long. The head looked much like ours, and there was a short pointed tail. The whole creature was very flat, with a shell about seven or more inches long, and in depth about an inch and a half.

June 7th and 8th he sees a plant "like young and downy oak shoots, just as they come out," and in the oak openings mixed with hazel, willow, and aspen, he finds roses, the smooth sumac, the lonicera, and the Seneca snakeroot (*polygala Senega*) just begun to blossom. The *Thaspium aureum*, of the *apterum* variety, he finds here very common amid bushes in the openings, and on lower ground. "On these prairies the prevailing golden-rod, judging from the rudimentary leaf, and withered stem and head, is the *Solidago rigida*, and it is very abundant all over the prairie." The common lithospermum is the *canescens*. "Parry says its root furnishes a dye commonly used by the Indians. Of the thaspium there are two forms common on the prairie, and perhaps the one varies into the other." He sees the *Betula pumila*,

or low birch, rare in New England, and it is four or five feet high; quotes Parry as saying the wild bergamot (*Monarda fistulosa*) is found here by Lake Calhoun, but did not see it. Parry also noted the *Triglochin elatum* on the upper St. Peter's River. Thoreau finds it on the shore of Lake Calhoun, along with *S. pedicellaria*, and "some of it more than two feet high." The *Pyrus coronaria* he finds there six feet high with thorns an inch long. The trees appear to be from seven to ten years old, and mostly from an old stock, but some are seedlings. He seems to determine the age from a fact which he states, that "from eight to twelve years old a thick bark scales off the trunk below." By Lake Harriet he hears of some rose with a white flower and a fruit as large as a hen's egg and yellow. In a pasture formerly a meadow, but now grown up to hazel, the snowberry bush, the smooth sumac, viburnum and young oaks, he seeks and at last finds, as already noted (June 9), the wild apple-tree. "They have a long tap-root going down into the clay beneath; I could not pull up a small one. One or two hundred young trees were there;

among them the larger yellow lady's-slipper." There he saw the Maryland yellow-throat, of a purple hue, and was rejoiced to find a rose-breasted grosbeak's nest.

It was ten feet high up in a young bass, and had four eggs in it, — green, spotted with brown, the larger end of some almost all brown. The whole nest was six to eight inches in diameter, and about four inches high; the inside diameter about three inches and its inside depth two inches. The outside was built of coarser weed-stems and some climbing herbaceous vine; the rest was made of finer brown weed-stems, at last quite fine like root fibres within. The male bird was on the nest, and when scared off kept within three or four feet. The eggs were fresh.

Of course they were not disturbed by Thoreau, except to note their colors. He then passed on to note in the woods northwest of the lake the red oak, the basswood, and the hop-hornbeam or *Ostrya*. Geraniums and thaspiums, he says, are exceedingly abundant in the brushy woods and oak

openings, and also on the prairies. These prairies were found "with hollows, often a pond in them, and covered with more weeds than grass; among them the lead plant (*Solidago rigida*, etc.). There was the wild rose, with the shad frogs hopping about and dropping their water all over it."

By the lake in a scarlet oak, eight feet up, I found a pigeon's nest like the former one, but more stable, containing one young bird three inches long, of a dirty yellowish and leaden color, with pinfeathers, and with a great bill bare at the base and a blackish tip. Another young bird slipped to the ground, fluttering as if wounded, two or three times, as she went off amid the shrubs.

Of plants this day and the day before he notes the tall anemone (*A. Virginiana*), "now a foot high, with flowers an inch and a half in diameter, — the white and obtuse-petalled variety; the golden aster (*Chrysopsis*), one specimen with many showy heads, the lower or radical leaves linear-lanceolate, with teeth at long intervals (now in flower); a

new yellow erigeron, very stout and eighteen inches high, on the shore of the lake." June 10, still in the region of the two lakes, Thoreau notes:

A great deal of *Tradescantia* on the sloping, stony, and bushy lake-shore, — some blue and some red or purple, from six to ten inches high. The *Phlox pilosa* in the open prairie is not long up; the tree-cranberry just fairly begun, as also the new viburnum. My *Arabis* must be *lævigata*, or the *Turritis* of Concord. I find the skullcap (*Scutellaria parvula*). The *Salix pedicellaris* in the meadow, and the *Cypripedium spectabile* is just springing up. The *Rosa blanda* about Mrs. Hamilton's is not quite out; this is Mrs. Anderson's "Prairie Rose." I come upon a third, fourth, and fifth nest of pigeons, with young, — the fourth not so high up (on a hop-hornbeam) as in the former nests, — say seven and a half feet high, and all much more substantially built, but made of the same-sized twigs as the first one. The last two nests were placed against the tree-trunk above a low branch or two. The

fishermen here find no worms for bait, but use pork, clams, etc. The outlet of Lake Calhoun, though muddy, is not dark-muddy, but like in color to the sand of the lake and the water very transparent, so that the fish are all seen.

It does not appear that Thoreau fished for them; he had long since given up that sport; but possibly his young comrade, Horace Mann, may have done so. Thoreau was characteristically pursuing a more evanescent prey. He says:

Going over a low hill which had its wood cut off a year or two since (and the fire had run over it afterward), I stooped to pluck a flower, and smelled the spring fragrance I have so often perceived here, but stronger and nearer than ever. So, going on and breaking off plants that were freshly leafed and vigorously growing, and smelling at them, I found at last a square-stemmed one which yielded the strong anise scent that I had noticed, especially when bruised. But then it was far from being so agreeable as

when perceived floating in the air. This seems to be the *Lophanthus anisatus* or *scrophulariæfolius*, which must yield the fragrance mentioned. Parry calls it "a characteristic northwestern species."

Thoreau had never seen it, nor was it then much known by that name; some botanists called it a hyssop. Gray describes it as having a "stem with strong obtuse angles," which accounts for the term "square-stemmed." Less agreeable were the nettles he found growing around Mrs. Hamilton's ice-house (a prairie nettle), or the catnip and plantain seen near the settlers' cabins. These and the common Shepherd's-purse were said to be introduced by the white men. He next noticed the birds seen about these lakes, — the turkey buzzards at a distance; the loons "are said to nest in old muskrat houses, and elsewhere around Lake Harriet." One afternoon, going to the old Prairie Fort, he found "a night-hawk's nest with two eggs in it, well advanced towards hatching." The western lark "has a note very plaintive; if heard at the same time with the common

meadow lark, it sounds much louder, with a toodle-em note. It is the *Sturnella neglecta* of Audubon." Next he observes a young bird, "a shrike (?) with a broad head, light-gray with black wings, a black tail, and side feathers and tips more or less white,—singing a note unlovely and rasping."

Then he sees along the gravelly sides of prairie hollows a ground-plum, to which he assigns the specific name *Astragalus*, and finds it full grown and red on one side, June 12, the day before he leaves Mrs. Hamilton's finally and returns to St. Paul. Parry says "it is frequently used to allay the thirst of the traveller on the great western plains;" but Thoreau did not make that use of it. In its immediate neighborhood he found "a great many striped (?) snakes, especially about pools on the prairie." He had before noted a species of ground cherry, probably *Physalis viscosa*, with its many nominal and variable species, and on June 14 he finds "another species of *Physalis* with lanceolate and toothed leaves, bearing a large yellow flower, five-cornered, with five violet filamented stamens about one style; its corolla dark in the mid-

dle, and the whole plant rather unpleasantly scented."

Now occurs the voyage up and down the Minnesota river, already described ; and soon he is ready to start on his slow return to Concord ; by no means essentially improved in health, but able, as we have seen, to endure great fatigue and to accomplish much of his daily work of nature-study. On his voyage from Milwaukee to Mackinaw, June 28, he notes with a quiet regret that some few plants have been seen "not yet identified,"—notably, "the Illinois man's 'yellow fanilla' vine ; another whitish-flowered, smooth, parsnip-smelling plant at Redwood ; and since then a yellow composite flower about eight-rayed (a clover-like vetch), a hypoxys-like flower, and finally a sonchus-like flower found at Red Wing." These doubts were nearly all solved in time, as the numbered list will show.

Arriving at the "Mackinaw House" June 30, he remained there observing, resting, botanizing, and querying for five days ; but the record of the time is chiefly in lists of plants and detached observations, a little hard to piece together in logical or chronological

order. A few letters home, such as he must have written, would perhaps thread these beads on a connected string; but until such letters are found, we must be content with individual bits.

The summer at Mackinaw was cold, and Thoreau sat by his fire July 2, chatting with one person or another about the climate and customs of the region. The ice in those upper lake waters, he finds, forms about the middle of January, and lasts till April; indeed, in June, "quite recently" ice had been seen at a bend of Lake Superior. He gets away from this chilly northwest passage on July 4, at night, sailing to Goderich in Canada in the propeller *Sun*, and reaching there by ten at night, July 5. The next day was consumed in reaching Toronto, where Sunday, July 7, was passed. On the 8th he sailed for Ogdensburg, New York, and thence went by railroad, through Vermont and New Hampshire, to Concord, fatigued, and after a shorter absence than he had contemplated.

On the scrap of a letter from Chauncey Smith, a Boston lawyer, enclosing an endorsed note of hand, payable April 23, 1860,

for \$100, which may have been a part of the fund from which Thoreau paid his traveling expenses on this journey, there appears a pencilled list of the clothing with which he provided himself for the expedition. The articles (perhaps not all he carried) were :

“A half-thick coat, a thin coat, ‘best pants,’ three shirts, a flannel shirt, three pairs of socks, slippers, underclothing, five handkerchiefs, a waistcoat, towel and soap,” — and such little articles as he might need, including a supply of medicines. Then comes the apparatus of scientific observation, — a compass and microscope, a plant-book for specimens, insect boxes, a botany-book (no doubt *Gray*), twine and cards, blotting and writing paper, tape, a dipper and bottle for foot-journeying, etc.

Ellery Channing, Thoreau's most intimate biographer, has noted in his *Thoreau, the Poet-naturalist* (Boston, 1902), what was his friend's custom in clothing and outfit :

“His coat must contain special convenience for a walker ; and the pockets, especially, must be made with reference to his

outdoor pursuits. They must accommodate his note-book and spy-glass; and so their width and depth was regulated by the size of the note-book. It was a cover for folded papers, on which he took his out-of-door notes; this was his invariable companion, and he acquired great skill in conveying by a few lines or strokes a long story, which in his written Journal might occupy pages. Abroad he used the pencil, writing but a few moments at a time, during the walk; but into the note-book must go all measurements with the foot-rule which he always carried, or the surveyor's tape; also all observations with his spy-glass,—another invariable companion for years. To his memory he never trusted for a fact, but to the page and the pencil, and the abstract in the pocket.”

An exact transcript of these notes towards the close of the entries of June 8, may here be given; they are fuller than he often made them:

P. M. to Lake Harriet along swamp. Saw a new yellow *Erigeron* very stout and eight inches high, on (gravelly) shore of lake.

Chrysopsis? (one specimen with many showy heads) lower or radicle leaves linear-lanceolate; small teeth at long intervals; also a physalis-like plant (*P. viscosa*) with soft downy leaves not quite out, and another (of the *Polanisia graveolens*) not yet out. *Oxybaphus nyctagineus* with small involucre.

Galium boreale (common in openings) just begun.

This is copied from page 51 of such folded papers, numbered to nearly 100 by him, and serving for a note-book, as Channing above describes. In some of them he evidently wrote after passing the places where he had seen plants; for example, on pages 44-46, he says:

Is not Parry wrong in calling the fruit of the *Amelanchier* Pembina? Sir J. Richardson says the *Corylus Americana* crosses "the continent to the Pacific Ocean." This is not only very plenty in Minnesota, but at Carp River, Mackinaw, Goderich, and Ogdensburg.

I suspect the common *Symphoricarpus* of

Minnesota is the *racemosus*, *small-leaved* (though as one low one is hardly blossomed first, it *may* be distinct). *Possibly* some longer-leaved *may* be the *S. occidentalis*.

Echinosperrum patula (?) [a mistake for "*lappula*," made by Thoreau] is in Gray's list. This plant is in Stephens' second part. (Also *Echinosperrum* [word illegible] is named and described); this began to flower about May 29th at St. Anthony, looking like a *Myosotis stricta* at first; but about June 14th it was larger, and with a spreading top, showing its prickly nutlets below. And now the taller and greener *Echinosperrum lappula* was seen in its midst, no more advanced than the other was on the 29th of May. But I saw it equally advanced about July 9th at Ogdensburg. I did not see the fruit this side of Minnesota. It was there not only about a fortnight the earlier, but not more than six to eight inches high, and much smaller leafed, and more gray with bristly hairs.

Is there not a ranunculus-like *Pennsylvanicus*, but with larger flowers such as Pursh and Beck name? Gooseberry-gathering in Minnesota. Upper white sandstone at St.

Paul. Parry says the ground-nut "grows in great abundance and of superior quality on the banks of the St. Peter's."

These appear to be the latest notes made by Thoreau regarding this last journey.

Besides the long list already given of plants seen in Minnesota, the Notes contain a numbered list, with the places named (oftentimes) where they were seen, and the date. Here it is:

1. *Podophyllum* (in bud), May 15, and *Ranunculus abortivus* (in bloom), Goat Island.
2. *Dicentra cucullaria*. Dog's-tooth violet, May 15 (just about done), do
[Between 2 and 4 not numbered]
4. *Trillium grandiflorum*, May 15 (very variable in form of petals and leaf), do
5. *Trillium erectum*, May 15, do
6. *Dentaria laciniata*, do do
Cardamine rhomboidea, May 15 (purple-flowered, apparently running like the variety *purpurea*), do
7. *Claytonia Virginica*, May 15, do
8. *Arabis lyrata*; *trifolia*, May 15 (both kinds), do
9. *Shepherdia Canadensis*, May 15, do
Amelanchier (by bridge). Yellow violet (*pubescens*), Goat Island, N. end.
10. *Staphylea trifolia* (out, May 23), Dunleith, Prairie du Chien.
11. *Pulsatilla*, May 23, 24, St. Anthony, do
26-29,
12. *Lithospermum hirtum*, May 27, behind St. Anthony.

- Ranunculus rbomboideus*, May 26, North
of St. Anthony (going out of bloom).
13. *Geum triflorum*, May 26, yellow petals
(also June 3).
14. *Draba nemorosa*, May 26, St. Anthony,
May 27, Nicollet Island.
15. *Arabis lævigata*; or *Turritis* (no *Turritis* in
Parry), May 31, St. Anthony.
Turritis? or *Arabis?* in bloom (see Jour-
nal, June 16), May 29, do
16. *Hydrophyllum Virginicum* (woods east of St.
Anthony), May 30.
Wood's early flowering *Lychnidea*, variety
Laphami, east of wood, May 30, do
17. *Phlox divaricata* (cyme not sessile, varying
from violet purple to white; better de-
scribed by Wood than by Gray), May 31, do
18. *Cerastium nutans*, May 27,
Allosorus gracilis, May 27, Hairy Os-
morrhiza. do
19. *Anemone Pennsylvanica*, May 27 (but not
hairy), do
20. *Amorpha fruticosa*, May 28, Lake Calhoun.
21. *Litbospermum longiflorum*, May 28, do
22. *Salix candida*, May 28 (in larch swamp), do
23. *Viburnum pubescens*, May 28 (lower surface
and petioles not "velvety-downy," as Gray
says. Not out, June 12), do
24. *Lonicera parviflora*, May 28 (budded), do
25. *Rhamnus alnifolius*, May 28, in swamp, with
sedge, do
26. Cottonwood, May 28, at St. Anthony.
27. *Viola delphinifolia*, May 29, Fort Snelling.
28. Tansy Mustard, May 29, St. Anthony.
29. *Echinosperrnum lappula* (perhaps), in Gray's
list? a small now, erect, blue-flowered plant
(stickseed). See No. 73 in this list, do
30. Waahoo, May 29, St. Anthony.

31. *Caulophyllum thalictroides* (done), May 30, Minnehaha.
32. *Astragalus (distortus?)* or else, *caryocarpus*, the standard being notched. See the Ground Plum of June 12 (yet the leaves were more obovate or obcordate), do
33. *Corydalis aurea*, May 30, do
34. *Salix longifolia* (see also June 6), May 30, do
35. *Senecio* (a woolly one, passed fronded), May 30, do
36. *Heuchera* (see June 6), budded. May 30, do
37. *Ranunculus*, downy or woolly, May 30 (*R. Pennsylvanicus* of Pursh and Beck; is not large-flowered; apparently there may be two species hereabout), do
38. *Echinocystis lobata* [Wood's "climbing herb"] May 30, [Thoreau adds, but not of this plant, "*Vitis cordifolia?*" Parry says; *Vitis riparia* (Michaux) Riverside Frost Grape, the only north-western species; Sir J. Richardson, *V. cordifolia* or *riparia*, Frost grape."] Hennepin Island.
39. Wood Strawberry. June 6 and 12, L. Calhoun.
40. *Amorpha canescens* (Lead-plant), June 3, Lake Calhoun.
41. *Negundo* (Box-Elder, or Ash-leaved Maple), June 3, do
42. *Ribes rotundifolium* (in fruit June 14, in flower), June 3, do
43. Wood's Climbing vine, the "yellow fanilla" of my Illinois man, perhaps the *Menispermum Canadense*, June 5, do
44. *Osmorrhiza longistylis*, June 5, do
45. *Scrophularia nodosa* (Figwort, just out), June 5, do
46. *Platanthera bracteata*, June 6, do
47. *Vicia Americana* of Wood and Gray; a small form, June 3, a large form, June 6, do
48. *Polygala Senega* (Seneca Snakeroot), just out, June 7, do
49. *Crætegus tomentosa* (Black Thorn), June 7, do
(Also the downy heart-shaped sepals of an-

- other variety in the woods on the St. Peter's River.)
50. *Symphoricarpus racemosus* (on a bank), June 7, Lake Calhoun.
(Also more forward in woods at other — June 12, etc. — dates.)
 51. *Cypripedium* (Yellow Lady's Slipper, white and somewhat rare), June 8, L. Calhoun.
 52. *Chrysopsis villosa*? June 9, at Lake Harriet.
 53. *Oxybaphus nyctagineus* (not quite out), June 9, Lake shore.
 54. *Galium boreale* (see note-book), June 9, L. Calhoun.
 55. *Rosa blanda* (seen also at Mackinaw),
June 10, do
 56. *Phlox pilosa* (not long). Best described by
Wood. June 10, Open prairie.
 57. *Scutellaria parvula*, June 10, do
 58. *Cypripedium spectabile* (just springing up, not pressed), June 10. do
 59. *Lathyrus palustris*, June 10, L. Calhoun.
 60. *Cynoglossum Virginicum*, June 11, do
 61. *Lophanthus anisatus* (the fragrant plant), June 11, do
 62. *Lathyrus venosus* (a little stale; blue, purple, and white), June 12, do
 63. *Asclepias Nuttalliana*, June 12, do
 64. *Astragalus caryocarpus* (see May 29) in fruit,
June 12, do
 65. *Polygonatum giganteum* (Great channelled Solomon's-seal, not quite out at L. Calhoun, now out), June 14, St. Paul.
 66. *Physalis pubescens* (yellow-flowered, see Journal),
June 14, do
 67. *Pentstemon grandiflorus*; *Campanula* var. *linifolia*, June 15, do
 68. *Rumex altissimus* (Wood). (The prevailing Dock of the Mississippi Valley, evidently indigenous; another longer pedicelled, and a third variety, with immense leaves and one clotbur.) June 15, do
 69. A crucifer (*Stellaria longifolia*?) large, no seed, broad-leafed, on opposite side of river, June 15, do

70. *Sinapis nigra*? (mustard-like plant by shore),
June 16, St. Paul.
71. *Mimulus Jamesii*, June 16, do
72. *Hedeoma hispida*? (of Nuttall in Parry's list,
but not odorous, — may it be the *Hedeoma*
hirta?), June 16, do
73. *Echinosperrnum lappula*? also at St. Anthony
and Ogdensburg. Yellow Geum (apparently,
G. strictum), June 16, do
74. *Psoralea argophylla* (not out), June 16, do
75. Honewort, June 15, do
76. *Senecio aureus* (Great Ragwort, not out), on banks
of St. Peter's River, June 19, do
77. *Delphinium azureum* (Azure Larkspur), June 19, Ft. Ridgely.
78. Broad-leaved sedge on slope, June 20, Redwood.
79. *Onosmodium Carolinianum* (rather greenish-
white), (another at Red Wing), June 20, do
80. Prairie flower, yellow and composite, going out
of bloom, June 20, do
81. Hard linear-leaved green plant of prairie, June 20, do
82. Narrow silver-leaved plant of the prairie, not out,
June 20, do
83. *Rudbeckia hirta* (the flower of the prairie),
June 20, do
(Also *Heliopsis lævis*, variety *scabra*.) [Pre-
viously called "a Rudbeckia-like flower," at
Redwood.]
84. *Ellisia*-like plant of slope (*ambigua*?), June 20, do
85. Purple Clove, on prairie (leguminous plant with
clove-like heads), June 20, 22, do
86. *Zygadenus aureus*? (See note-book June 23 &
24), June 23, Red Wing.
87. *Viola Canadensis*? June 21, St. Peter's River.
88. *Coreopsis palmata*, June 21, do
89. *Aphyllon fasciculatum*? (Orobanche-like plant),
June 23, Red Wing.
90. *Lobelia spicata* (bluer than common), top of
Barn Bluff, June 23, do

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|------|--|-------------|
| 91. | <i>Castilleia sessiliflora</i> , June 23, | Red Wing. |
| 92. | A Crucifer (white-podded) out of seed, June 23, | do |
| 93. | <i>Arabis lyrata</i> -like plant, white flowered and mostly gone to seed, on and under Barn Bluff. | |
| 94. | Silene-like plant, behind the hotel, June 24, | do |
| 95. | <i>Acerates viridiflora</i> , on sharp-ridged bluff, June 24, | do |
| 96. | <i>A. monocephala</i> , on sharp-ridged bluff. <i>Potentilla anserina</i> , June 24, | do |
| 97. | A long-bearded grass (<i>Stipa spartea</i>), June 25, | do |
| 98. | A <i>Sonchus</i> -like plant, yellow-flowered, June 25, (Apparently <i>Cynthia Virginica</i> , top of sharp-ridged bluff), | do |
| 99. | <i>Verbena bracteosa</i> (By the roadside, low and spreading), June 25, | do |
| 100. | <i>Dracocephalum parviflorum</i> (Dragonhead mint), June 26, | do |
| 101. | A boraginaceous-like plant (<i>Cynoglossum Morisoni</i> -like, but a thicker weed), June 29, | Carp River. |
| 102. | <i>Arabis lyrata</i> -like (with two rows of seeds), June 29,
(Seen under Barn Bluff, at Red Wing.) | do |
| 103. | <i>Conioselinum Canadense</i> (Hemlock Parsley), June 30, | Mackinaw. |
| 104. | <i>Lithospermum</i> (not the same as <i>L. officinale</i> — White seeded), June 30, | do |
| 105. | <i>Rubus Nutkanus</i> , June 30, | do |
| 106. | <i>Corallorhiza Macræi</i> (under beeches, etc., with <i>Corallorhiza multiflora</i>), June 30, | do |
| 107. | <i>Zizia integerrima</i> , in woods. Herb Robert. Yellow crucifer (<i>Barbarea vulgaris</i> ?), June 30, | do |
| 108. | <i>Draba arabisans</i> (near the Arched Rock), July 1, | do |
| 109. | <i>Mitella nuda</i> , July 1, | do |
| 110. | <i>Euphorbia helioscopia</i> , July 3, | do |
| 111. | <i>Thlaspi arvense</i> (a broad, flat-potted plant), July 4, | do |

This closes the numbered list of plants, which seems to include chiefly those not common in New England. And with this the transcription from the pencilled notes may well end, except the curious list of travelling expenses, which, although incomplete, is worth transcribing. On a scrap of paper are a few figures, giving the different pockets in which he placed his money, — the amount of the sums named being a little less than \$180. The details in the following list do not foot up so much as that, — only about \$150. It is to be presumed that the actual cost was between \$150 and \$180. As the time occupied was two months, and the distance journeyed was more than 4,000 miles, this indicates that Thoreau practised his accustomed frugality. The entries are given as they stood in the original, without any attempt to explain them farther than they indicate of themselves.

THOREAU'S TRAVELLING EXPENSES, MAY, JUNE,
AND JULY, 1861

Date.	Details.	Amount.
May 10	Ticket to Chicago,	\$25.25
11	Concord to Worcester, .50+1.00,	1.50

Date.	Details.	Amount.
May 12	At Springfield,	\$.06
13	At Albany, .50+2.00,	2.50
14	At Suspension Bridge (N. Y. Central House),	1.50
15	To Niagara Falls,	.04
"	At Niagara Falls, paper,	.05
"	To Goat Island,	.25
	Troches, 2 p.	.50
16	To Suspension Br. and back,	
17	and over Br.	.33
18	At Niagara Falls,	5.00
	Paper and bread,	.15
19	To Bridge and paper,	.09
20	At Detroit,	.50
21	Breakfast &c.,	.17
	Map of Minnesota,	1.00
"	Envelopes,	.13
"	Cars,	Torn off
	Carried over to second page,	\$13.82
22	At Chicago (Metropolitan House),	3.00
23	Ticket to St. Paul,	11.50
"	Apples,	.05
26	At St. Paul (breakfast),	.50
26	" " Board & washing,	7.50
26	To St. Anthony,	.75
"	" Brown paper,	.10
"	" Toll,	.28
27	At St. Paul, To Hamilton,	.75
	cheated,	.05
28	At Lake Calhoun,	6.00
29	At St. Anthony,	.10
"	" "	1.00
30	To St. Paul,	.75
31	At St. Paul (Merchants' Hotel),	3.50
"	Paper and bridge,	.10
June 19	Fare to Redwood and back,	10.00
	[Something is here torn off.]	

Date.	Detail	Amount.
June 19	At St. Paul (again),	\$1.00
"	Pectoral,	1.00
22	Fare to Redwing,	2.00
23	Stamps,	.15
26	At Redwing,	3.00
27	Fare to Milwaukee,	9.75
"	At [illegible],	.50
28	In Milwaukee, coach,	.25
"	At Lake House,	.75
"	Fare to Boston,	20.15
30	At Mackinaw,	5.05
July 5	At Goderich,	.25
"	On road,	.06
7	Rosin House, Toronto,	3.50
"	On road,	.11
8	At Ogdensburg,	.75
8	" " Paper,	.05
"	Lunch,	.11
9	Supper,	.10
9	Berth,	.50
10	Fare to Concord,	1.10

Soon after Thoreau's return home (August 19, 1861) he went by railroad to New Bedford to spend a few days with his good friend Daniel Ricketson, and there, August 21, he was persuaded by him to sit for a small ambrotype to Dunshee, a local photographer, — the last portrait ever made of Thoreau, which, enlarged, is given in this book.

Thoreau had notified his New Bedford

friends in the March preceding of how his serious illness began ; writing under date of March 22, 1861, as follows :

To tell the truth, I am not on the alert for the signs of spring, not having had any winter yet. I took a severe cold about the 3rd of December, which at length resulted in a kind of bronchitis, so that I have been confined to the house ever since, excepting a very few experimental trips as far as the post-office, in some particularly mild noons. My health otherwise has not been affected in the least, nor my spirits. I have simply been imprisoned for so long ; and it has not prevented my doing a good deal of reading and the like. Channing has looked after me very faithfully ; says he has made a study of my case, and knows me better than I know myself, etc., etc. Of course, if I knew how it began, I should know better how it would end.

He had not then given up the hope of longer life, though he had in fact been more or less an invalid for some years. On his

return from Minnesota he wrote again to Daniel Ricketson, and the letters, along with much other interesting matter, are printed in the volume, *Daniel Ricketson and His Friends*, published in 1902 by Anna and Walton Ricketson, to whom the editor is indebted for permission to use the portrait taken at New Bedford on Thoreau's last visit. In announcing this visit, from Concord (August 15), he wrote :

When your last letter was written I was away in the far Northwest, in search of health. My cold turned to bronchitis, which made me a close prisoner almost up to the moment of my starting on that journey, early in May. As I had an incessant cough, my doctor told me that I must "clear out," — to the West Indies or elsewhere, — so I selected Minnesota. I returned a few weeks ago, after a good deal of steady travelling, considerably, yet not essentially better ; my cough still continuing. If I don't mend very quickly, I shall be obliged to go to another climate again very soon. My ordinary pursuits, both indoor and out, have been for the most part omitted

or seriously interrupted, — walking, boating, scribbling, etc. Indeed, I have been sick so long that I have almost forgotten what it is to be well ; and yet I feel that it is in all respects only my envelope. . . . Remembering your numerous invitations, I write this short note now chiefly to say that, if you are to be at home, and it will be quite agreeable to you, I will pay you a visit next week, and take such rides and sauntering walks with you as an invalid may.

In the above-named volume are found the following passages out of Mr. Ricketson's Journal, which are appropriate here :

“ August 19. My friend Thoreau came by the afternoon train from Boston. Spent the evening conversing, — Thoreau giving an interesting and graphic account of his late visit to the Mississippi, St. Anthony's Falls, etc. He was gone two months. My impression is that his case is a very critical one as to recovery ; he has a bad cough, and is emaciated ; his spirits, however, appear as good as usual, and his appetite good. I fear that he will gradually decline. He is think-

ing of going to a warm climate for the winter, but I think a judicious hydropathic treatment at home would be much better for him.”

Thoreau took a drive with the Ricketsons each of the six days of the visit, and also walked and botanized a little. On parting with him, August 24, Mr. Ricketson wrote in his diary, — “The recovery of his health is quite uncertain: still he has a good deal of toughness, and great will, which are in his favor.” He was persuaded to receive a visit from Dr. Denniston, then at the head of a celebrated water-cure in Northampton; and Mr. Ricketson accompanied the doctor from New Bedford to Concord, September 2. After the medical examination, Thoreau walked with Dr. Denniston to the battleground, a mile or more, and they were joined on the way by Mr. Alcott. Mr. Ricketson wrote in his diary:

“The doctor was unable to awaken in Thoreau an interest in his mode of treating disease by the water practice. He kindly invited Thoreau to come to Northampton and stop a fortnight with him as a guest, but discouraged his going to the West Indies.

I hope he may be improving, and need no doctor or absence from home.”

They visited together the scene of the Walden life, bathed in that pure green water; called on Thoreau's village friends, Emerson, Alcott, Edmund Hosmer, and Mrs. Brooks; and parted for the last time September 5. A few weeks later (Oct. 14, 1861) Thoreau sent his last letter to Ricketson, saying, among other things:

I think that, on the whole, my health is better than when you were here; and my faith in doctors has not increased. I abide by Concord. September was pleasanter and much better for me than August, and October has thus far been quite tolerable. Instead of riding on horseback, I take a ride in a waggon about every other day. My neighbor, Mr. Hoar [Judge Hoar, elder brother of the Senator] has two horses; and he, being away for the most part this fall, has generously offered me the use of one of them; and, as I notice, the dog throws himself in, and does scouting duty. It is easy to talk, but hard to write.

He signed himself "the worst of all correspondents." Early in the winter his sister Sophia wrote to Mr. Ricketson a letter in which the nature of these drives was explained. She said:

"Soon after your visit to Concord, Henry commenced riding, and almost every day he introduced me to some of his familiar haunts, far away in the thick woods, or by the ponds, — all very new and delightful to me. The air and exercise which he enjoyed during the fine autumn days was a benefit to him; he seemed stronger, and was able to attend somewhat to his writing. But since the cold weather has come, his cough has increased, and he is able to go out but seldom. His spirits do not fail him; he continues in his usual serene mood, — which is very pleasant for his friends as well as himself. I am hoping for a short winter and early spring, that the invalid may again be out of doors. (April 7, 1862.) My dear brother has survived the winter, and we should be most thankful if he might linger to welcome the green grass and the flowers once more. Since the autumn he has been gradually failing, and is now

the embodiment of weakness; still, he enjoys seeing his friends, and every bright hour he devotes to his manuscripts, which he is preparing for publication. For many weeks he has spoken only in a faint whisper. Henry accepts this dispensation with such childlike trust, and is so happy, that I feel as if he were being translated, rather than dying in the ordinary way of most mortals. I hope you will come and see him *soon*, and be cheered. He desires me to tell you that he cannot rise to greet a guest, and has not been out for three months. Few of his friends realize how sick he is, his spirits are always so good.”

He died on the 6th of May following,—less than a year from the day when he started for Niagara and Minnesota; and he was never able, in the press of earlier literary work (which had to be prepared for publication after his death), to go over his notes of the journey, and so much as indicate in what order they should be edited. Yet even without his exact method and his humorous touches, they will be welcome to a fast-increasing circle of readers.

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