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October, 1888.

THE
* OTTAWA NATURALIST *

VOLUME II. No. 7.

The
TRANSACTIONS
Of the
* Ottawa Field-Naturalists' Club *

(Organized March, 1879. Incorporated March, 1884.)

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NOTICE.—The Treasurer begs to call the attention of members to the advertisements.

EXCURSION No. 4.

The fourth general Excursion was held on Saturday, 15th September, to King's Mountain, Chelsea, P.Q.

The weather was exceedingly favourable, being bright and warm : consequently a large number of members and their friends turned up in good time at the usual rendezvous, the corner of Sparks and Bank streets. A start would have been made at the appointed hour, 9 o'clock, had it not been that one of the vans, previously engaged, failed to put in an appearance, and considerable time was lost in procuring another conveyance to take its place.

Soon after 10 o'clock, the party, consisting of about seventy, in four well filled vans, moved quickly out of the city, and the drivers being apparently as anxious as the excursionists to get to their journey's end, much of the time lost in starting was made up on the way out—the foot of the mountain was reached at 1.15 p.m. The road chosen on this occasion was the "lower road" past the Hon. R. W. Scott's house. This road is far more picturesque than the one usually taken through Chelsea. The van drivers, however, seem to have a great objection to go this way, and for the last two or three years have succeeded in persuading the Council to take the other road. For this occasion, however, the President was determined that the excursionists should enjoy the full beauty of the lovely drive. As the mountains were approached the glorious autumn tints of the forest elicited frequent expressions of surprise and delight. The Stag's-horn Sumach was a conspicuous object in the landscape, the sombre colours of the Laurentian rocks being rendered magnificent by its gorgeous livery of crimson and gold. Not less marvellous were the hues of the forest, where the deep green of the foliage had changed to varying tints of yellow, white, red and purple. The maples being, particularly, objects of great beauty. The basswood and poplar contributed many shades of yellow and tender green, while the white ash had in many places changed its summer robe of green to one of deep purple. All this colour mixed with the deep green of the conifers—pine, spruce, and balsam fir,—which were dotted here and there up the mountain side, conspired to produce a general effect of wondrous beauty. Such a

landscapes, in fact, as can only be found in its perfection beneath the clear skies and in the pure air of Canada.

Upon reaching the foot of King's Mountain, the vans were stopped and the party alighted. The President, Mr. R. B. Whyte, then announced what the programme was for the day, and gave out the names of those who were to act as leaders.

After an hour had been spent profitably and pleasantly in discussing the contents of the luncheon baskets, the work of the day began.

Upon invitation by the president, most of the party decided to accompany him to the summit of the mountain. The majority followed the beaten path and worked their way up quietly and easily, but a few venturesome spirits determined to find their way straight up the face of the rocks and it was only after a long and tedious climb that they succeeded in gaining the top. The time at the disposal of the excursionists would only allow them a short while to gaze on the wide panorama spread out for many miles beneath them. Looking out through the tops of the trees in the foreground away to the right lay the Chats Lake and rapids connected with Lake Deschenes by the Ottawa River, which like a band of silver marked the mid-distance and extended across the picture until it was lost sight of on the horizon to the extreme left. Immediately in front twelve miles distant lay the cities of Ottawa and Hull, with Aylmer to the right and Gatineau Point to the left. Deep down in the valley at the feet of the spectators lay the smooth surface of King's Mere, reflecting like a mirror the pretty residences on its shores. In every direction could be seen fertile farms with their snug and well kept buildings peeping through the luxuriant forest growth, truly a beautiful picture, speaking of quiet, peace, and happiness.

Both on the way up and in the descent the naturalists were busily engaged in collecting specimens for study. The botanists returned with well filled boxes. Michaelmas Daisies, Golden Rods and various berry-bearing plants were now in perfection and were eagerly gathered by the collectors. As the bottom of the slope was reached the sharp click! click! click! of the mineralogists' hammers bore testimony that they were not losing their opportunities. At 4 o'clock the party re-assembled. It had been announced at the beginning of the day that the return journey would be by the upper road and it was therefore arranged that

the usual addresses by leaders should be given at the top of the hill near the summer residence of the late Lt.-Col. Dennis.

Some of the leaders were unfortunately prevented from attending the excursion, and there were consequently only two addresses.

The president speaking for the botanical leaders delivered an admirable address upon the various plants collected during the day, explaining how the different species of Aster and Solidago might be distinguished, and drawing attention to their medicinal properties and various uses.

Mr. H. M. Ami, the leader in geology then followed with a sketch of the geological features of the locality, explaining how the Laurentian mountains were formed and enumerating the most important minerals contained therein.

This pleasant day was brought to an end by an enjoyable drive home, the city being reached by 7.30.

ENTOMOLOGICAL SOCIETY OF ONTARIO.

The annual meeting of the above Society is to be held in this city upon the 5th and 6th October. The president for the year is Mr. James Fletcher of this Club. A cordial invitation has been extended to our members to attend the various meetings. The President's address upon Insects Injurious to Crops, will be delivered in the Council Chamber of the City Hall on Friday evening (5th) at 8 o'clock, and there will also be several addresses by prominent men.

THE WINTER MEETINGS.

The Soiree Committee beg to inform the members of the club that they are now preparing the programme for the winter course of lectures. They will feel much obliged if such members as are desirous of reading papers before the club during the ensuing season will send in the titles as

soon as possible and at the same time indicate whether they have any preference as to the date of reading their papers. The inaugural meeting will probably be held in the beginning of December. Titles of papers must be sent in before the 15th November, after which date the committee will take steps to fill up any vacancies which may then exist in the programme.

AN IMPORTANT WORK.

“ENTOMOLOGY FOR BEGINNERS” for the use of young folks, fruit-growers, farmers and gardeners, by A. S. Packard, M.D., Ph.D.

We have received from Dr. Packard's publishers a copy of his new work bearing the above caption. This little book is undoubtedly an important one and its appearance very well-timed. At the present day when the necessity is acknowledged for knowing something of the life-histories of the many injurious insects which annually destroy a large proportion of our crops, it is a rather remarkable fact that there was not until Dr. Packard's book appeared, any small manual to be had at a low price, such as those who were not entomologists would care to buy and have on their shelves “in case they might require it.” Moreover, undoubtedly, one of the greatest hindrances to a beginner when anxious to make a collection of insects and to learn something of their habits, was the fact that there was no small, systematic work from which he could obtain the necessary information which he required at the very start—such as the way to collect, kill, mount, preserve, and classify his specimens.

This drawback which has existed for so long is, we believe, now supplied by the above mentioned work.

The want of a convenient hand-book was particularly felt by those educationists who were wide-awake enough to appreciate the value of entomological studies as a means of training the mind of youth in a way which, at the same time that it sharpens the faculties of observation and memory, gives the power to think—from the fact that it deals with real things which actually exist and which the students can find and

examine for themselves—presents its details to those willing to learn in such an attractive manner as to induce attention. Further, above and beyond all this, when it has served its end as a successful educational means of training the mind, the recipient is possessed of a stock of useful knowledge which, no matter what his occupation may be, he will have frequent opportunities to make use of for his own good and the benefit of his neighbours.

It is perhaps open to discussion whether the different sections of "Entomology for Beginners" might not advantageously have been arranged rather differently, or whether indeed it may not be better for the beginner to study some of the last chapters first. This, however, is a trifling matter, and the student will soon learn where each of the sections is situated. As arranged at present, we find first of all, in what may be called Section I, chapters on the structure, metamorphoses and classification of insects. This last is not in strict accordance with the accepted systems, some of the older orders having been subdivided, until instead of 8 orders we now have 16. Dr. Packard has spent many years in close study and careful thought on systematic entomology. He says of the present system: "The classification presented is in accordance with recent studies, and the conviction that certain of the lower so-called 'orders' of insects, such as the 'Orthoptera, Pseudoneuroptera,' are heterogeneous, unnatural groups, which for the sake of clearness and truth to nature should be broken up into distinct orders." The reasons are given for the changes and the points are well sustained. We have no hesitation in saying that the new classification is a good one, and anticipate its ready acceptance by scientific entomologists.

There are only two defects which strike us. One is that it is perhaps too much condensed; the other that the degree of amplification is not given of all the figures.

Chapter 4 gives a short account of some of the interesting types of insect architecture.

Chapter 5, consisting of 34 pages, gives an excellent account of injurious and beneficial insects, and enumerates the leading remedies.

The remainder of the work is devoted to a careful and most intelligible treatise on collecting and preserving specimens for the cabinet, also

what will be invaluable to beginners, a Bibliographical list of works on entomology and a very complete glossary of terms.

The whole comprised in a compact 8vo. vol. of 367 pages, clearly written, well printed and copiously illustrated. It is published by Messrs. Henry Holt & Co., of New York for \$2, and can be ordered through Messrs. J. Durie & Son, of this city, we trust ere long it will be in the hands of many of our members.

CENTRAL CANADA EXHIBITION ASSOCIATION.

The first annual exhibition held at Ottawa under the auspices of the above-named association opened upon Monday, 24th September, and closed Saturday, 29th idem. It was on the whole a most decided success, although in some lines the exhibits were fewer than had been anticipated. The Natural History exhibits were displayed in the Art Gallery, and attracted much attention. It was satisfactory to notice that with one exception the whole of this exhibit was sent in by members of our club. As pointed out in a previous issue, it was a matter of some importance that we should make a good exhibit, not only to show that the club was actively and successfully pushing on the investigation of the natural resources of the locality, but also to show our sympathy with an institution which must have a most beneficial effect upon the prosperity and advancement of the city of Ottawa and the surrounding district. Amongst the exhibits which attracted special attention were a most extensive and valuable collection of the economic minerals and ores of Canada, exhibited by Mr. B. T. A. Bell, the editor of the Canadian Mining Review.

In Sec. 1 the first prize for a collection of native stuffed birds was taken by Mr. Edwards. His well mounted and naturally set-up specimens were an attractive feature of the exhibition.

Mr. George R. White took second prize with a large collection of beautiful unmounted skins, well prepared and nicely arranged.

Mr. Edwards's exhibit of stuffed fish was the only one sent in.

There were only a few specimens, but they were sufficient to show his skill as a taxidermist.

Secs. 3, 4, 5 were collections of insects. In Sec. 3 there were two collections, the larger made by Mr. Fletcher, which was a complete collection of all the different species of butterflies ever taken in the locality, systematically arranged and named. The other a general collection of insects of various orders made by Mr. Fred. Magee. Mr. Fletcher's were the only collections of injurious insects and foreign insects. These were contained in 15 cases, and made a fine display.

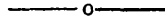
Sec. 7, a collection of native reptiles in spirits, was exhibited by the curator of the Ottawa Literary and Scientific Society.

Sec. 8, collections of native plants. There were three very fine collections exhibited under this head. Mr. Robert Whyte sent his fine collection of local plants, which are all arranged, named and mounted on white cartridge paper.

The second prize was awarded to Miss Isabel Grant. This was a smaller collection than the last, but shewed great care and industry on the part of the collector.

Mr. Whyte also exhibited an extensive collection of Australian ferns of great beauty.

Perhaps one of the most interesting exhibits as well for the beauty of the specimens as for the tasteful manner in which they were displayed was Mr. F. A. Latchford's collection of land and fresh water shells.



“HOW TO STUDY BOTANY,” by T. J. W. Burgess, M.B., F.R.S.C.

We have much pleasure in noticing an excellent essay bearing the above modest title, which was read by our fellow member, Dr. Burgess, before the Hamilton Association on 10th May, 1888. It is a charmingly expressed and succinctly written statement of the advantages, difficulties and pleasures to be derived from a study of the science of botany. The manner in which the author considers a beginner can best acquire a knowledge of this branch of science is put forward in a clear and simple manner. Those who have had the pleasure of work-

ing with Dr. Burgess or of examining his collection, know how well qualified he is to instruct others, as well in the science of accurately identifying his material as in the art of making, preparing and mounting beautiful specimens for the cabinet. The only thing to be regretted is that the edition is a small one, and consequently it cannot come into the hands of many who would like to see it. We have received two copies for the club library, a perusal of which we highly recommend to our botanical members.

FLORA OTTAWAENSIS.

It has been decided by the Council to reprint the 13 pages of the "Flora Ottawaensis" which have so far appeared, and for the future to keep a separate pagination for that part of the OTTAWA NATURALIST. This is done to meet the wishes of several of the members who have expressed a desire to have these pages printed in such a manner that they may be separated from the monthly numbers without injuring the rest of the volume.

SAPONARIA, L. Soapwort.

275. *S. officinalis*, L. (Bouncing Bet.)
A garden escape. Roadsides and waste places. Billings Bridge,
Hull, &c. July—3. (B.)
276. *S. Vaccaria*, L. (Common Cow-herb.)
Introduced. Grain fields and waysides. July—2.

ARENARIA, L. Sandwort.

284. *A. MICHAUXII*, Hook.
A. stricta, Mx. Gray's Manual.
Dry rocks. Nepean Point, Rockcliffe. July—1.
288. *A. serpyllifolia*, L. (Thyme-leaved Sandwort.)
Introduced (?) Dry rocky banks. Rockcliffe, Hull and Aylmer.
Ju.—4. (B.)
289. *A. LATERIFLORA*. (Broad-leaved Sandwort.)
Mærlingia lateriflora, Fenzl.
Gravelly banks. Green's Creek, Chelsea, Aylmer. Ju.—2. (B.)

STELLARIA, L. Chickweed. Star-wort.

293. *S. media*, Smith. (Chickweed.)
Introduced. In cultivated ground, everywhere.
294. *S. LONGIFOLIA*, Muhl. (Long-leaved Stitch-wort.)
Low woods and fields. Ju.—1. (B.)
2113. *S. graminea*, L. (Narrow-leaved Stitch-wort.)
Introduced. This species, which is abundant in Nova Scotia and
New Brunswick, has only been found here once. Casselman.
(Miss I. Grant.) Aug.—3.
295. *S. BOREALIS*, Bigel. (Northern Stitch-wort.)
Swamps and low woods. Ju.—1. (B.)

CERASTIUM, L.

306. *C. viscosum*, L. (Mouse-ear Chickweed.)
C. vulgatum. Gray's Manual, p. 94.
Cultivated ground. Introduced. Annual. Nearly erect.

307. *C. VULGATUM*, L. (Larger Mouse-ear Chickweed.)

C. viscosum. Gray's Manual, p. 94.

Perennial, spreading, a larger plant than the preceding. (B.)

308. *C. NUTANS*, Raf. (Nodding Cerastium.)

Damp places amongst rocks. Hull, Little Chaudière. Ju.—2.

309. *C. curvense*, L. Field Chickweed.

Rocky pastures. New Edinburgh (*Mrs. Chamberlin*), Janeville
(*R. B. Whyte*). Ju.—2.

SPERGULA, L. Spurrey.

322. *S. arvensis*, L. Corn Spurrey.

Introduced. Grain fields. Billings Bridge, Bell's Corners.
Ju.—2.

PORTULACACEÆ.—Purslane Family.

PORTULACA, Tourn. Purslane.

326. *P. oleracea*, L. (Pusley.)

Introduced. Cultivated ground. Cultivated in France as a
vegetable. Ju.—2. (B.)

CLAYTONIA, L.

331. *C. CAROLINIANA*, Mx. (Broad-leaved Spring-beauty.)

Rich woods. One of our earliest flowers, and sometimes called
"May-flower." May—1. (B.)

C. Virginica, common in Western Ontario, was collected at Perth
by Mr. R. B. Whyte, but has not yet been detected in this locality.

HYPERICACEÆ.—St. John's-wort Family.

HYPERICUM, L. St. John's Wort.

343. *H. PYRAMIDATUM*, Ait. (Great St. John's-wort.)

H. Ascyron, L.

River side. Casselman. Aug.—1.

345. *H. ELLIPTICUM*, Hook.

Low ground, river banks. A small pretty species. July—3. (B.)

346. *H. perforatum*, L. Common St. John's-wort.

Introduced. Abundant in dry pastures. July—2. (B.)

347. *H. CORYMBOSUM*, Muhl. (Spotted St. John's-wort.)

H. maculatum, Walt.

River banks. Janeville, St. Louis Dam, Aylmer, Hull. July—4.

348. *H. MUTILUM*, L. (Small Swamp St. John's-wort.)
 Low ground. Ju.—4. (B.)
349. *H. CANADENSE*, L.
 Low ground. July—1.
- ELODES, Adns. Marsh St. John's-wort.
353. *E. VIRGINICA*, Nutt.
H. Virginicum, L.
 Swamps and margins of streams. July—2. (B.)

MALVACEÆ.—Mallow Family.

MALVA. Common Mallow.

354. *M. rotundifolia*, L. (Round-leaved Mallow.)
 Introduced. Roadsides and waste-places. Ju.—2. (B.)
355. *M. sylvestris*, L. (High Mallow.)
 Introduced. Gatineau Point. Eastman's Springs. Bank St.
 Road. July—2.
356. *M. crispata*, L. (Curled Mallow.)
 A garden escape. Billings Bridge, Hull. Aug.—1.
357. *M. moschata*, L. (Musk Mallow).
 Introduced. Roadsides and pastures. Flowers both pink and
 white. July—2.

ABUTILON. Indian Mallow.

362. *A. Avicennæ*, Gærtn. (Velvet-leaf).
 Introduced. Waste-places. Aug.—2.

HIBISCUS, L. Rose Mallow.

364. *H. Trionum*, L. (Bladder Ketmia.)
 A garden escape. Aug.—1.
 Flowers open between 9 o'clock and noon.

TILIACEÆ.—Linden Family.

TILIA, L. Basswood.

366. *T. AMERICANA*, L. (Basswood.)
 Woods and pastures. Ju.—2. (B.)
 ————— var. *PUBESCENS*, Loud. (Downy-leaved Basswood.)
 Near St. Louis Dam. Ju.—2.

LINACEÆ.—Flax Family.

LINUM, L. Flax.

373. *L. usitatissimum*, L. (Common Flax, Linseed)
Introduced with seed grain. July—2.

GERANIACEÆ—Geranium Family.

GERANIUM.

379. *G. pratense*, L. (Meadow Crane's-bill.)
A garden escape at Aylmer, P.Q. Ju.—2. (*R. B. Whyte.*)

380. *G. CAROLINIANUM*, L.
Rocky woods and sandy fields. Ju.—2. (B.)

381. *G. ROBERTIANUM*, L. (Herb Robert.)
Rocky Woods. Little Chaudiere, Hull, and Chelsea. Ju.—1.

ERODIUM, L'Her. Storks-bill.

384. *E. cicutarium*, L'Her.
Introduced. Waste-places. Rare. July—1.

385. *E. moschatum*, Willd. Musky Storks-bill.
A garden escape. Stewarton. Not uncommon. July—1.

IMPATIENS, L. Balsam, Jewel-weed.

387. *I. FULVA*, Nutt. (Spotted Touch-me-not).
Low ground. July—2. (B.)

A variety with yellow unspotted flowers is found along the
St. Louis Dam.

OXALIS, L. Wood Sorrel.

389. *O. ACETOSELLA*, L. (Wood Sorrel.)
Shady swamps and damp woods. Ju.—2.

391. *O. CORNICULATA*, L. var. *STRICTA*, Sav. (Yellow Wood Sorrel.)
O. stricta, L.

Common in low ground and gravelly places. Ju.—2. (B.)
This I think is probably a distinct species, and not a variety of
O. corniculata, L.

RUTACEÆ.—Rue Family.

XANTHOXYLUM, Colden. Prickly Ash.

392. *X. AMERICANUM*, Mill. (Northern Prickly Ash.)
River banks. May—2.

CELASTRACEÆ.—Staff-tree Family.

ILEX, L. Holly.

395. *I. VERTICILLATA*, Gray. (Canadian Holly, Black Alder.)

Swamps and river margins. Ju.—2.

A beautiful shrub bearing heavy clusters of scarlet berries.

NEMOPANTHES, Raf. Mountain Holly.

396. *N. CANADENSIS*, DC.

Peat bogs. Ju.—1.

A shapely shrub of even greater beauty than the preceding with slender branches which bear a profusion of delicate light-green foliage and purplish-red berries on slender pedicels.

CELASTRUS, L.

397. *C. SCANDENS*, L. (Wax-work, "Climbing Bitter-sweet.")

Rocky woods. Ju.—1 (B.)

RHAMNACEÆ.—Buckthorn Family.

CEANOTHUS, L. Red-root.

401. *C. AMERICANUS*, L. (New Jersey Tea).

Rockcliffe. Very rare. July—1.

RHAMNUS, Tourn. Buckthorn.

405. *R. ALNIFOLIA*, L'Her.

Peat bogs. May—4.

VITACEÆ.—Vine Family.

VITIS, Tourn. Grape Vine.

409. *V. RIPARIA*, Mx. (Frost Grape).

V. cordifolia, Mx. Gray's Manual, p. 112.

River-sides. Ju.—2. (B.)

AMPELOPSIS, Mx.

411. *A. QUINQUEFOLIA*, Mx. (Virginian Creeper, American Ivy.)

Low woods. July—1.

SAPINDACEÆ.

STAPHYLEA, L. Bladder-nut.

412. *S. TRIFOLIA*, L. (American Bladder-nut.)

River-side at Billings Bridge. Rare. May—2. (B.)

ÆSCULUS, L. Horse Chestnut.

413. *Æ. Hippocastanum, L.*

Introduced. Cultivated for its beauty; but not so successfully here as in Western Ontario.

ACER, Tourn. Maple.

414. *A. PENNSYLVANICUM, L.* (Striped Maple.)

Rocky and sandy woods. May—3.

415. *A. SPICATUM, Lam.* (Mountain Maple.)

Wet woods. Ju.—3.

419. *A. SACCHARINUM, Wang.* (Sugar Maple, Hard Maple.)

Rocky and sandy woods. May—2.

————— var. *NIGRUM, T. & G.* (Downy Maple.)

Easily distinguishable from the type with which it occurs by the foliage, which is dull dark green, pubescent beneath, turning to yellow in the autumn. The leaves are generally recurved at the sides, which gives them a rounded appearance.

420. *A. DASYCARPUM, Ehrh.* (Silver, or White Maple.)

Islands and river banks. Apl.—3.

One of the first plants to flower in the spring.

421. *A. RUBRUM, L.* (Red, or Soft Maple.)

River banks and low woods. May—1. (B)

NEGUNDO. Ash-leaved Maple.

422. *N. ACEROIDES, Mönch.* (Manitoba Maple, Box Elder.)

Introduced. Now largely cultivated as a shade tree from its rapid growth. It is not, however, well suited for this purpose. May—2.

ANACARDIACÆ—Sumach Family.

RHUS, L. Sumach.

423. *R. TYPHINA, L.* (Stag's-horn Sumach.)

Rocky woods and fields. July—1. (B)

427. *R. TOXICODENDRON, L.* (Poison Ivy.)

Rocky woods and fields, Ju.—2. (B)

429. *R. AROMATICA, Ait.* (Scented Sumach.)

In a rocky field near Lake Flora, Hull, P.Q., is a large straggling patch of this species. It is evidently all one plant many years old; but as it only bears staminate flowers there are no seedlings. (*H. M. Ami.*) May—2.

LEGUMINOSÆ—Pea Family.

TRIFOLIUM. Clover.

450. *T. arvense*, L. (Rabbit-foot Clover.)
Introduced. In a field at Billings Bridge. Rare. Ju.—4.
451. *T. pratense*, L. (Red Clover.)
Introduced. Ju.—1. (B)
453. *T. repens*, L. (White or Dutch Clover.)
Introduced. Ju.—1. (B)
460. *T. agrarium*, L. (Hop Clover.)
Introduced. An erect, handsome plant, sometimes 18 inches high, with showy flowers. Eastman's Springs, Aylmer. (*J. F.*)
Beechwood. (*R. B. Whyte.*)
461. *T. procumbens*, L. (Low Hop Clover.)
Introduced. Billings Bridge (*J. F.*) Near St. Louis Dam (*R. B. Whyte.*)
Daly street (*J. T. McLaughlin.*) Ju.—2.
462. *T. hybridum*, L. (Alsike Clover.)
Introduced. Ju. 2.

MELILOTUS, Tourn. Melilot.

465. *M. alba*, Lam. (Sweet Clover.)
Introduced. Waysides. July—2. (B)
466. *M. officinalis*, Willd. (Yellow Melilot.)
Introduced. Waysides and waste places. July—2.

MEDICAGO, L. Medick.

467. *M. lupulina*, L. (Black Medick, Hop Trefoil.)
Introduced. Fields and waysides. Ju.—1. (B)

ROBINIA, L. Locust Tree.

486. *R. Pseudacacia*, L.
Introduced. Growing spontaneously from seeds. Rockcliffe,
Beechwood, Hull. Ju.—2.

ASTRAGALUS, L. Milk Vetch.

491. *A. CANADENSIS*, L.
River banks. Hull, Rockcliffe, Billings Bridge. Ju.—3.
504. *A. COOPERI*, Gray.
Rocky woods. Rockcliffe, Hull. Ju.—1. (B.)
As compared with *A. Canadensis*, with which it may be con-
founded, this is a smaller and smoother plant, with thin one-
celled pods, and leaflets from 11-21 in number and opens its

flowers in the beginning of June, whilst *A. Canadensis* has thick completely two-celled pods in long close spikes, leaflets 21-27 in number and flowers late in July.

DESMODIUM, DC. Tick Trefoil.

536. *D. ACUMINATUM*, DC.

Rich woods. Meech's Lake, Patterson's Creek and Billings Bridge. July—1.

543. *D. CANADENSE*, DC.

Dry banks and in thickets. Billings Bridge, St. Louis Dam (*J. F.*); East Templeton (*R. B. Whyte*). July—3. (B.)

VICIA. Vetch, Tare.

549. *V. sativa*, L. (Common Tare.)

Introduced. Appearing in all cultivated lands. July—1. (B.)

550. *V. tetrasperma*, Loisel.

Introduced. Bank street road, 1871 (*A. H. Moore*.)

551. *V. hirsuta*, Koch.

Introduced. A garden weed (*R. B. Whyte*); Billings Bridge in a wheat field (*J. F.*) Aug.—2.

552. *V. Cracca*, L.

Introduced. Railway banks and in hay fields. Ju.—3.

LATHYRUS.

558. *L. OCHROLEUCUS*, Hook.

Rocky woods. Hull, Chelsea, Rockcliffe, Little Chaudière. July—2. (B.)

559. *L. PALUSTRIS*, L.

River sides and damp meadows. Ju.—2. (B.)

——— var. *MYRTIFOLIUS*, Gray.

With the above, and perhaps hardly worthy of a varietal name, intermediate forms occurring all the way from the extreme form back to the type.

APIOS. Ground Nut.

561. *A. TUBEROSA*, Mönch.

River banks. A most interesting perennial, with handsome foliage and dense racemes of beautiful brown-purple, violet-scented flowers, and bearing edible tubers at short distances along underground stems. Aug.—1. (B.)

SUMMARY

—OF—

Canadian Mining Regulations.

NOTICE.

THE following is a summary of the Regulations with respect to the manner of recording claims for *Mineral Lands*, other than *Coal Lands*, and the conditions governing the purchase of the same.

Any person may explore vacant Dominion Lands not appropriated or reserved by Government for other purposes, and may search therein, either by surface or subterranean prospecting, for mineral deposits, with a view to obtaining a mining location for the same, but no mining location shall be granted until actual discovery has been made of the vein, lode or deposit of mineral or metal within the limits of the location of claim.

A location for mining, except for *Iron* or *Petroleum*, shall not be more than 1500 feet in length, nor more than 600 feet in breadth. A location for mining *Iron* or *Petroleum* shall not exceed 160 acres in area.

On discovering a mineral deposit any person may obtain a mining location, upon marking out his location on the ground, in accordance with the regulations in that behalf, and filing with the Agent of Dominion Lands for the district, within sixty days from discovery; an affidavit in form prescribed by Mining Regulations, and paying at the same time an office fee of five dollars, which will entitle the person so recording his claim to enter into possession of the location applied for.

At any time before the expiration of five years from the date of recording his claim, the claimant may, upon filing proof with the Local Agent that he has expended \$500.00 in actual mining operations on the claim, by paying to the Local Agent therefor \$5 per acre cash and a further sum of \$50 to cover the cost of survey, obtain a patent for said claim as provided in the said Mining Regulations.

Copies of the Regulations may be obtained upon application to the Department of the Interior.

A. M. BURGESS,

Deputy of the Minister of the Interior.

DEPARTMENT OF THE INTERIOR,
Ottawa, Canada, December 19th, 1887.

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