

of the preceding questions, and work the following instead:

a. Equal chords in a circle are equally distant from the centre; and conversely, those which are equally distant from the centre, are equal to one another.

b. Inscribe a square in a given circle.

N. B.—Female Candidates after working this paper, are at liberty to take the paper set to Male Candidates for Class I., and will receive credit for any work correctly done in the last three questions.

I. & II. [15] ALGEBRA. Time 1 hr 30 min.

For Female Candidates, Class I.; and Male Candidates, Class II.

1. (1) Define the terms *factor*, *coefficient*, *power*, *exponent*.

(2) Find the numerical value of  $b^2 - 2bc + c^2$  if  $a=1, b=2, c=3, d=4, e=0$ .

2. (1) State the Rule for Subtraction. (2) Show the reason for the Rule by operating upon an example.

3. (1) Give the Rule for finding the square of the sum and of the difference of two numbers. (2) Find the square of  $a+b+c$ , and of  $d-e+f-g$ .

4. Show how you can readily ascertain whether  $x^n + y^n$  is divisible by  $x+y$  and by  $x-y$ .

5. From the following equations, find the value of  $x$ :

$$(1). \frac{x+4}{3} - \frac{x-1}{5} = 2 + \frac{3x-1}{15}$$

$$(2). \frac{x+1}{7} + x(x-2) = (x-1)^2$$

(3). Square root of  $(9x+4)$  + square root of  $(9x-1) = 3$ .

6. The sum of two numbers is 41, and their ratio is that of 5 to 6, required the numbers.

7. Divide a line of 60 inches into three such parts that the second may be double of the first, and the third triple the same.

N. B.—When Female Candidates have worked this Paper, they will be at liberty to work the Paper set to Male Candidates for Class I., and will receive credit for any work correctly done.

II. [10] FOR FRENCH CANDIDATES. Time, 1 hr.

1. Translate into French the following passage: "The merchant, after riding some miles, alighted to rest himself under a tree; and taking the bag of money in his hand, laid it down by his side. But on remounting he forgot it. The dog observing this, ran to fetch the bag; but it was too heavy, and it could not drag it along."

2. Translate the following into English:—Une autre fois, elle craignait que les misérables avec lesquels elle logeait allaient l'assassiner, pour l'argent qu'ils croyaient qu'elle possédait. Ce ne fut que lorsqu'ils virent qu'elle n'avait que quelques monnaies en cuivre dans sa bourse, qu'ils la laissèrent partir saine et sauve.

3. (1) Parse the italicized words above; (2) Give the principal parts, also the Future Indicative of each of the italicized verbs above.

(3) What is the Rule for forming the plural of nouns (a) ending in *nt*, (b) ending in *au, eu, ou*, (c) ending in *ail*?

### FASHION AND BIRD-LIFE.

The bulletin lately issued by the "Committee on the Protection of Birds," of the American Ornithologists' Union, reveals some startling facts relating to the destruction of birds at the demand of fashion. The Committee gives the birds' side of the case, and indicate the probability of numerous species becoming totally extinct unless the terrible slaughter, now being carried on, is stopped.

The song birds suffer quite as much as any other orders; indeed their bright plumes and graceful forms and handy size make them particularly useful to the milliner, and the remains of scores of sweet singers may be seen on our streets, set jauntily on the hats of ladies who would become indignant if charged with being accomplices in the killing of these, the loveliest and most harmless of God's creatures.

The extermination of the birds would be a serious matter. To the lovers of nature—and who does not love the beautiful things of nature—their loss would be very great; but far more important would be the results arising from the enormous increase of insect pests which must follow. This economic

phase of the question—the relation of birds to agriculture—has never been properly understood, although just now it is attracting considerable attention.

The question, "How is the extermination of the birds to be prevented?" is very easily answered. Stop buying the feathers and the gunners will soon stop killing the birds; and if you do not stop buying the feathers, the blood of these innocent creatures, slaughtered to gratify your vanity, must be upon your hands.

That our women have been the cause of this destruction of birds through mere thoughtlessness must be patent to all. Very strong evidence of this is found in the hearty enthusiasm with which they respond to the efforts that are being made to create a public sentiment against the fashion. This is particularly noticeable in their willingness—nay eagerness—to join the Audubon Society, the members of which pledge themselves not to make use of the feathers of wild birds for decorative purposes, and to discourage such usage.

This Audubon Society is very similar in its aims and methods to the S. borne Society of England, which has on its roll of membership such illustrious names as the Duchess of Argyle, the Duchess of Sutherland, the Duchess of Devonshire, and a hundred other ladies of high rank, as well as Lord Tennyson, Mr. Browning, Sir Frederick Leighton, and others of noted distinction.

In the United States the movement has been taken up by the Humane Society, and by numerous educational institutions, and by the leading people in fashion and philanthropy, and its influence has increased with wonderful rapidity. The idea of the Audubon Society was conceived only a few months ago, and it is still unorganized, yet its membership on the first day of June was over 7,500, and the President, *pro tem*, writes me that he issues over a hundred certificates per day.

The publishers of "Forest and Stream" very generously undertake to meet the expense of starting and organizing the Audubon Society, and its headquarters, at present, are in the office of that journal, at 40 Park Row, New York.

Will not some of our teachers help us in this work? They can render most valuable aid if they will.

The writer is the Canadian representative on the Committee appointed by the American Ornithologists' Union to take charge of this matter, and he will gladly furnish, free of charge, to any one applying, copies of the bulletins of the Committee, and circulars, etc., of the Audubon Society.

MONTAGUE CHAMBERLAIN.

St. John, N. B.

At a meeting of the Natural History Society of New Brunswick, held at St. John, on Tuesday, June 1st, the following resolutions were unanimously adopted:—

*Whereas*, We have learned from reports of competent observers that the annual destruction of birds, principally for millinery purposes, is so much greater than the natural increase, that unless the destruction is stopped in a short time many of the most useful and interesting species will be exterminated; and

*Whereas*, The extermination of these birds would be a serious loss to the agriculturist and a matter of deep regret to the lovers of nature; be it

*Resolved*, That this society heartily endorse the action of the American Ornithologists' Union in inaugurating a crusade against the slaughtering of birds, and we cordially recommend to the people of this city and province that they co-operate with the Audubon Society, which has been founded as an auxiliary to the efforts of the American Ornithologists' Union, in creating a public sentiment against the wearing of bird skins for decorative purposes,

*Resolved*, That we request the press throughout the province to publish these resolutions.

The matriculation examination for the University was held in the Victoria School June 4th and 5th. There were nine young ladies examined. Mr. G. Herbert Lee, M. A., presided.

### ARBOR DAY.

The celebration of Arbor Day by the St. Stephen schools on Friday, May 21st, drew a large number of the citizens to the Marks Street school grounds. The front of the building was neatly decorated with flags, flowers, plants, overgreens and boughs. The exercises were commenced by the singing of a pretty arbor day chorus by the children in Miss Lyle's primary department, after which Master Ruby Smith sang some pleasing verses, his school mates joining in the chorus. Mr. P. G. McFarlane, principal of the schools, welcomed the parents and friends to the second observance of arbor day. St. Stephen had been the pioneer town in the movement last year, and this year the day is being observed in many parts of the province. In the course of further remarks appropriate to the day, Mr. McFarlane dwelt upon the many advantages arising from the presence of trees on the school grounds. He expressed a desire to see a day set apart each year for the planting of trees on the grounds of both town and country schools. Miss Dowling's primary department sang appropriate selections, which were followed by the rendering of God Save the Queen. Beside the address by Mr. McFarlane, others were delivered by Hon. Judge Stevens and Rev. G. M. Campbell. An interesting feature of the programme was the presence of the Citizens' Band, which rendered a number of choice selections. At the conclusion of the ceremonies, trees were dedicated as follows: By T. Arthur Thompson, in memory of his deceased son Ralph Harrison; by Miss Watson, in memory of Robert Watson; by Mark Mills, in honor of L. A. Mills, Secretary of Schools; by Willie Mills, in memory of Wm. F. Andrews; by Lewis Mills, in honor of F. W. Andrews; by Inspector Oakes, in honor of Lady Tilley; and by the planting committee, in memory of the late F. H. Todd, an early promoter of tree planting.—*Courier*.

The superior school at Forest City, York county, taught by Mr. Brown, celebrated Arbor Day a few days ago. About fifty trees were set out and named for the trustees, the present and preceding teachers, leading politicians, rulers, etc. An Arbor Day entertainment was held on the Queen's birthday, the opening address of which, on "Arbor Day, its importance and uses," was delivered by W. M. Johnston, a former teacher of the school. Dr. Cody read a very able paper on school hygiene, Mr. Brown a paper on education, and Mr. Joshua Lamb, one on culture. The programme, besides the above, consisted of some excellent recitations by the pupils and of music by the choir. Much credit is due Mr. Brown for his very energetic labors in this work, which are duly appreciated by the people of the district.—*Daily Telegraph*.

### COLLEGE NOTES.

The students of Memramcook College held their annual picnic June 1st, and an enjoyable day was spent. The closing exercises of the institution will take place June 22nd.

The Ecumenical exercises at King's College, Windsor, take place on Thursday June 24th, and will be of the usual interesting character. His Lordship the Metropolitan of Canada will preach the annual sermon.

### PERSONAL.

Geo. R. Parkin, Esq., A. M., of the Collegiate School, Fredericton, expects to spend his summer vacation in England.

Inspector Carter will visit the schools in Grand Manan, West Isles, Campobello, and St. Andrews, during the month of June.

T. H. Rand, D. C. L., has been offered the Principalship of Woodstock College, Ontario, and has decided to accept the position.

Mr. George U. Hay, of this city, has received notice from Illinois Wesleyan University that, having passed the requisite examination, he is entitled to the degree of Ph. B. from that institution.—*Tel*.