

The Vouths' Department.

ANSWER TO GEOMETRICAL PROBLEM IN OUR LAST.

The pool is distant therefore, from the longest tree, 36 1/3, and from the shortest, 53 8/9 feet

H. HOGUE.

MINUTENESS OF ANIMALCULES; THEIR ORGANIZATION AND FUNCTIONS.

The globules of blood, small as they are, are exceeded in minuteness by innumerable creatures whose existence the microscope has disclosed, and whose entire bodies are inferior in magnitude to the globules of blood.—Microscopic research has disclosed the existence of animals, a million of which do not exceed the bulk of a grain of sand, and yet each of these is composed of members as admirably suited to their mode of life as those of the largest species. Their motions display all the phenomena of vitality, sense, and instinct. In the liquids which they inhabit they are observed to move with the most surprising speed and agility; nor are their motions and actions blind and fortuitous, but evidently governed by choice and directed to an end. They use food and drink, by which they are nourished, and must, therefore, be supplied with a digestive apparatus. They exhibit a muscular power far exceeding in strength and flexibility, relatively speaking, the larger species. They are susceptible of the same appetites, and obnoxious to the same passions as the superior animals, and though differing in degree, the satisfaction of these desires is attended with the same results as in our own species. Spallanzani observes, that certain animalcules devour others so voraciously that they fatten and become indolent and sluggish by over-feeding. After a meal of this kind, if they be confined in distilled water so as to be deprived of all food, their condition becomes reduced, they regain their spirit and activity, and once more amuse themselves in pursuit of the more minute animals which are supplied to them. These they swallow without depriving them of life, as by the aid of the microscope, the smaller, thus devoured, have been observed moving within the body of the greater. The microscopic researches of Ehrenberg have disclosed most surprising examples of the minuteness of which organized matter is susceptible. He has shown that many species of Infusoria exist which are so small that millions of them collected into one mass would not exceed the bulk of a grain of sand, and a thousand might swim side by side through the eye of a needle. The shells of these creatures are found to exist fossilized in the strata of the earth in quantities so great as almost to exceed the limits of credibility. By microscopic measurement it has been ascertained that in the slate found at Bilin, in Bohemia, which consists almost entirely of these shells, a cubic inch contains forty-one thousand millions; and as a cubic inch weighs two hundred and twenty grains, it follows that one hundred and eighty score millions of these shells must go to a grain, each of which would consequently weigh the 187,000,000th part of a grain. All these phenomena lead to the conclusion that these creatures must be supplied with an organization corresponding in beauty with those of the larger species.—Lardner's *Hand-Book of Natural Philosophy.*

LIFE AND DEATH IN LONDON.—Few know that in every seven minutes of the day a child is born in London, and that in every nine minutes one of its inhabitants dies! The population of London is roundly, 2,362,000. If the averages of the past fifty years continue, in thirty-one years from this time as many persons as now compose its population will have died in it, and yet in about thirty-nine years from this time, if the present rate of progress continue, the metropolis will contain twice as many persons as it does now.—*Dailier.*

Advertisements.

Fresh Arrivals of Groceries.

THE Subscribers beg to call the attention of purchasers to their New Importations of

TEAS, TOBACCOES, WINES,

and General Groceries, (arriving daily), all of which are offered low for cash or short credit

JOHN YOUNG, Jun. & Co

Hamilton, May 12, 1852

THE GREAT BRITISH QUATERLIES AND BLACKWOOD'S MAGAZINE.

Important Reduction in the Rates of Postage.

LEONARD SCOTT & Co.,
No. 54 Gold St., New York,

Continue to publish the following British Periodicals, viz
THE LONDON QUARTERLY REVIEW (Conservative)
THE EDINBURGH REVIEW (Whig)
THE NORTH BRITISH REVIEW (Free Church),
THE WESTMINSTER REVIEW (Liberal), and
BLACKWOOD'S EDINBURGH MAGAZINE (Tory).

THESE REPRINTS have now been in successful operation in this country for twenty years, and their circulation is constantly on the increase, notwithstanding the competition they encounter from American Periodicals of a similar class, and from numerous Eclectic and Magazine made up of selections from foreign Periodicals. This fact shows clearly the high estimation in which they are held by the intelligent reading public, and affords a guarantee that they are established on a firm basis, and will be continued without interruption.

Although these works are distinguished by the political shades above indicated, yet but a small portion of their contents is devoted to political subjects. It is their literary character which gives them their chief value, and in that they stand confessedly far above all other journals of their class. Blackwood, still under the masterly guidance of Christopher North, maintains its ancient celebrity, and is, at this time, unusually attractive, from the serial works of Bulwer and other literary notables, written for that magazine, and first appearing in its columns both in Great Britain and in the United States. Such works as "The Centaur," and "My New Novel," (both by Bulwer), "My Penitential Medal," "The Green Hand," and other serials, of which numerous rival editions are issued by the leading publishers from the pages of Blackwood, after it has been issued by Messrs. Scott & Co., so that Subscribers to the *Reprint* of that Magazine may always rely on having the earliest reading of these fascinating tales.

TERMS:

	Per ann.
For any one of the four Reviews	\$3 00
For any two of the four Reviews	5 00
For any three of the four Reviews	7 10
For all four of the Reviews	8 00
For Blackwood's Magazine	3 00
For Blackwood and three Reviews	9 00
For Blackwood and the four Reviews	10 00

Payments in all cases to be made in advance.

REDUCED POSTAGE.

To Subscribers in Canada, residing near the Boundary Line, and receiving these Periodicals from an American Post Office, the Postage on a review will be 4 cents, and on Blackwood 9 cents per quarter, payable in advance. Remittances and communications should be always addressed, post paid, to the Publishers,

LEONARD SCOTT & Co.

79, Fulton Street, New York.
Entrance, 64, Gold Street.

N.B.—L. S. & Co. have recently published, and have now for sale, the "Farmer's Guide," by Henry Stephens of Edinburgh, and Prof. Norton of Yale College, New Haven, complete in 2 vols., royal octavo, containing 1600 pages, 14 steel and 600 wood engravings. Price,—in muslin binding, \$6; in paper covers, for the mail, \$5.

TORONTO, C. W.:

THOMAS MACLEAR.

22-11

Now Dry Goods Establishment AND MILLINERY SHOW ROOM.

J. & W. McDONALD

WOULD most respectfully announce to the Ladies in Toronto, that the Millinery Show Room, in connection with their

DRY GOODS ESTABLISHMENT,

No. 1, King's Building, corner of Yonge and Adelaide Streets,

was opened on the 15th inst., with a new and select display of the most fashionable Millinery, which will be offered at prices unusually low

No. 1, Elgin Building.

25-

PENNY READING ROOM!!

THIS undersigned has opened a News Room in his premises, 51 Yonge Street, supplied with the leading Papers and most valuable Magazines, both

BRITISH AND AMERICAN,

As follows, viz.:

- London Quarterly Review,
- The Edinburgh, "
- North British, "
- Bibliotheca Sacra,
- Eclectic Magazine,
- Blackwood's "
- International, "
- Littell's Living Age,
- Harper's Magazine,
- Sartain's Union, "
- Constitution and Church Sentinel
- Dublin Newspaper,
- Globe, "
- Colonist, "
- Patriot, "
- Examiner, "
- North American, "
- Canadian Family Herald,
- Literary Gem,

with a large number of others, and as the charge is only One Penny per visit, or Seven-pence half-penny per month, he trusts to be honoured by the patronage of the reading public.

C. FLETCHER.

Toronto, January 8th, 1852.

6-58

NEW BOOK STORE!

No. 54, Yonge Street, Toronto

(Two Doors South of Spencer's Foundry.)

THE Subscriber respectfully informs his Friends and the Public that he has commenced business as

Bookseller and Stationer

In the above premises, where he intends to keep on hand a choice and varied assortment of

BOOKS & STATIONERY,

The Stock on hand comprises—STANDARD WORKS in every department of Literature, together with Cheap Publications, SCHOOL BOOKS, &c., &c., &c.

A Valuable Second-hand Library for Sale.

TERMS—CASH.

CHARLES FLETCHER.

Toronto, January 8th, 1852.

6-58