

The Paris *Figaro* describes a new style of cannon recently made at Lille, that is destined to work a complete revolution in the manufacture of artillery, if all that is claimed for it is true. It is made of steel about half-an-inch thick or even less, and, when pronounced perfect by the examiners, is placed upon an enormous turning-lathe, above which are several bobbins wound with fine silk thread. The ends of the silk threads are fastened to the cannon, which, as it turns rapidly on the lathe, soon covers itself with a thick and even covering of silk thread. When the diameter is thus increased to the required size, a coating of india rubber is applied to protect the silk from the weather, and the cannon is ready for use. It is claimed that a silk thread has as much tenacity and resistance as a steel thread of equal diameter, and much more elasticity. Consequently, its use in the manufacture of artillery possesses many evident advantages, such as the great decrease in weight and the increased facilities in handling and firing the field-piece, due to the fact that silk is a non-conductor of heat.

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#### LITERARY NOTICES.

The "Bulletin of the Torrey Botanical Club," now in its tenth year, is becoming more and more valuable. Its February number is accompanied with a plate of the forms of twenty-six new species or varieties of the *desmidiaceae* in illustration of an article on *freshwater algae* by Francis Wolle. The plate itself is worth the price of the whole annual volume to students of the microscopic algae. Some of these forms have been observed in Nova Scotia.

In the January number of the "Bulletin" are some fern notes by Geo. E. Davenport, in which he states that the range of *Aspidium filix-mas*, Swz. "may now be given as extending from Canada (Owen Sound), or Newfoundland according to Kunze (who stated positively that he had seen true *filix-mas* from Newfoundland?), to Washington Territory, in the North-

West, by way of Northern Michigan and Dakota, and to Southern California, in the South-West, through Colorado and Arizona. Its presence, therefore, in intermediate stations is to be expected." Mr. Davenport does not appear to know that this interesting fern is found in great abundance and luxuriance in the Island of Cape Breton, Nova Scotia. Principal A. H. McKay of the Pictou Academy, informs us that "as early as July 1876 he collected *Aspidium filix-mas*, near Aspy Bay, not far from Cape North and nearly within sight of Newfoundland." He has found it also 'as far South as the centre of the Island, on the picturesque summit of San Mountain, Whycoomagah, and also on the coast of the Gulf of St. Lawrence in Inverness County, nearly midway between the two former stations. Here, on the Strathlorne side of the Cape Mabou plateau, as the winding ascent is made up its high front and one of the grandest panoramas which the tourist seeks in this romantic isle, expands on the view, so do acres and acres of ferns appear lying above, below and around the traveller's path, and conspicuous among them for its profusion and robust luxuriance—enough to stock the herbariums and botanical gardens of a continent—flourishes the rare *filix-mas*." "In the same region is also found abundantly *Aspidium acculeatum* Swartz, var. *braunii*. And near Aspy Bay on the North-East, *Aspidium lonchitis* Swz. is not rare.

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#### EXCHANGE DEPARTMENT.

Every subscriber has the privilege of inserting in this department one notice, not exceeding five lines, each year. Beyond that, and for non-subscribers, the charge is 5 cents a line.

Have been collecting Birds' Eggs for the past three seasons and am now prepared to exchange. Would like to correspond with parties desirous of exchanging.

F. L. ROBINSON,  
West Burlington, Otsego Co., New York.

FOR SALE.—Second-hand copy "Fourteen Weeks in Physics." Steele. Nearly new. Price 80 cents, postpaid. "Geological Story Briefly Told." Dana. Nearly new. Price \$1.10 postpaid.

A. J. PINEO,  
Wolfville, N. S.