

## AT ULVERTON.

Company Rifle Match at the Rifle Range, at Ulverton. Durham, on the 21st day of October, 1871:

There was a good muster of the Company, when the following prizes were competed for, and awarded as follows.

Open to non-commissioned officers and men of the Durham Volunteer Company, of which James Mairs, of Melbourne, is Captain. 1st prize, a splendid silver hunting-watch, presented by John Mulleigh, Esq., with suitable inscription, Corpl. J. Bothwell; 2nd do. a fowling peice, presented by Ensign Alexander, Pte. James Burton; 3rd do. \$5 cash, a donation from J. Murphy, Esq.; 5th do. \$3, Sergt. H. A. Bothwell; 5th do. \$2, Pte. T. Farrell; 6th do. \$1, Pte. S. Brickley; 7th do. \$1, Pte. W. Wear; 8th do. \$1, Sergt. Alexander; 10th do. \$1, Pte. D. Fee.

SWEETSTAKES.—1st prize, Ensign Alexander; 2nd do. Corpl. J. Bothwell; 3rd do. Sergt. A. Alexander; 4th do. Pte. James Burton; 6th do. John Hargrave; 6th do. John Alexander; 7th do. John Poyant.

CONSOLATION MATCH.—(Open to unsuccessful competitors in previous matches; 1st prize, C. Foster; 2nd do. J. Woolfrey; 3rd do. W. Dingley; 4th do. P. Lengworth.—*Montreal Gazette*.)

## GUELPH VS. HALTON.

A rifle match between the Guelph and Halton Rifle Clubs took place at the Guelph Rifle Range on Thursday, eight men aside, ranges 200, 400, and 500 yds. five rounds per range. It was one of the closest matches ever contested in this neighborhood, but, as will be seen from the score, Guelph retains its laurels. The day was very fine, and the competitors were entertained at the Rifle Range Hotel in "mine host's best style." The following is the score.

GUELPH.			
	200 yds	400 yds	500 yds
George A. Bruce.....	10	18	15
John Stewart.....	11	16	7
H. L. Walker.....	14	16	17
Alfred Strowger.....	14	15	16
James Stirtan.....	12	15	14
J. Hopper.....	13	18	11
James Hazelton.....	13	19	14
Wm. Sunley.....	10	16	11
Totals.....	97	133	105 335

HALTON.			
	200 yds	400 yds	500 yds
Captain Johnson.....	17	17	12
Ensign Cooper.....	14	17	9
Sargt. Spiers.....	11	17	14
George McKerlie.....	13	16	14
R. Braham.....	13	15	13
D. McKerlie.....	15	13	14
W. Barns.....	12	17	14
James Thatcher.....	10	15	8
Totals.....	105	127	98 330

—*Guelph Mercury*.

## LAUNCH OF A TURRET SHIP.

The London Times of Oct. 3rd has the following respecting the launch of a turret ship:—

"On Saturday Her Majesty's twin screw armour-clad turret ship *Hecate*, four guns, were successfully launched by the builders Messrs. J. & W. Dudgeon, at their ship-building yard, Cubitt town. About two o'clock gangs of workmen began to knock away the timber cradle in which the vessel lay, the gas pipes used for lighting the ship were disconnected with the shore, and punctually to the time named for the launch the *Hecate* was ready to take the water. On a platform erected close to the ship's bows were the guests invited to witness the ceremony, among them were Maha Meubla Kyoden Taden Wood, Secretary to the King of Burmah, and now in this country on a special mission; Mr. N. Barnaby, assistant constructor to the Board of Admiralty; Mr. J. Luke, admiralty surveyor and inspector of contract work; Mr. W. S. Roden, M. P., and Mr. J. C. Bayley, London manager of the firm of Sir John Brown & Co. at whose works in Sheffield the *Hecate*'s armour plate was made. The word was passed to 'Stand clear,' the last supporting wedge was knocked away, Mrs. Bayley pronounced the ship's name and threw a bottle of champagne which, hanging by a blue ribbon from the deck was broken against the iron bows as the ponderous monster glided steadily and swiftly stern first into the river, where catching the force of the rising tide, she turned up stream and was soon hidden from the sight of the launching party.

"The *Hecate* is one of four vessels called the 'Cyclops' class of Monitor turret ships, ordered by the Government about 12 months ago. Two were ordered from shipbuilders on the Thames, the third on the Clyde, and the fourth on the Tyne. The *Hecate* is the second launched. These vessels are intended for the defence of our coasts and channel seas, and it is confidently expected that they will prove themselves good seaboats. Two vessels constructed on similar principle have made excellent passages—one to Melbourne, the Abyssinia, built by Messrs Dudgeon, and another, made for the protection of our Indian possessions, to Bombay. The *Hecate*, of 2,107 tons burden by builders' measurement, is 225ft in length, 45ft in breadth, and has a depth of 16ft in the hold. She is made of iron throughout, and amidships a space about 120ft. in length is enclosed, roughly speaking, by an elliptical breastwork of defensive armor-plating 9 and 10 inches thick, backed by East India teak, and lined with two thicknesses of half inch ironplate. This bulwark, impenetrable to shot and shell, is carried completely round the vitals of the ship, protecting the engines, the apparatus to be used for steering in battle and the powder magazines. The turrets, similarly plated, rise above the breastwork, by which their revolving bases are protected. Each turret is pierced for two 18-ton guns, which will throw shot and shell weighing about 450lb. The gun carriages are placed parallel to each other in the turret, and are fitted with Captain Scott's compressor plates to counteract the recoil of the gun. Behind the carriage is placed horizontally a cylinder filled with oil and fitted with a piston against which the carriage presses when the gun is fired, the elasticity of the compressed oil assisting to force the gun back into position. There are also india rubber buffers to decrease the effect of the shock. The turret is made to perform a complete revolution on

its axis in less than one minute by means of a pinion worked by a small auxiliary engine, which is supplied with steam from the boilers of the principal engines. Between the turrets and raised above them is an armour plated pilot house, in which during an action the captain is to take his place and give his orders to an officer who communicates them by telegraph to the engine room and through speaking tubes to those commanding in the turrets. When the ship is not in battle her course will be directed from the hurricane deck, on which is the ordinary steering apparatus and a chart house. On this deck also the ship's boats, lifted by derricks attached to a light iron mast, are to be secured on 'crutches,' in rough weather. Ventilation is provided for by a down-cast air shaft and steam fans, which will drive fresh air through light iron pipes, into all the compartments of the vessel. The armor-plated central portion of the ship has a double bottom, the space between the two skins being divided into water tight cells, while the unprotected portions fore and aft are divided between decks into compartments separated by iron bulk heads. When afloat the *Hecate* drew 8ft 7in. forward and 11ft. 10in. aft, but when completely armoured and equipped her draught will be 15ft. 6in. the point of the ram with which she is armed being about 10ft. below the water line. There are no masts, the constructors trusting entirely to what Admiral Rous calls the 'tea kettle' for the means of driving the ship. She will be propelled by two four-bladed screws worked by two pairs of engines of 250 nominal horse power, made by Messrs. Miller and Ravenhill on the banks of the Thames. The ship will be completed in the Millwall, Docks and will afterwards be sent to Devonport."

The instrument, on the old spinet, clavichord, and harpsichord, which gives the title of "Piano Forte" to the instrument, was the invention of Bartholomeo Christofori, and was produced very early in the eighteenth century. The name was given to it in the year 1717 by Christopher Scroter, who observed that it could be played *forte* or *piano*. John Harris, in 1730 informed the English public that he had patented "a new invented harpsichord upon which (having only two sets of strings) may be performed either one or two unisons, or two unisons and one octave together; or the fortes and pianos, or loud and soft, and the contrary may be executed as quick as thought, and also double basses, by touching single keys.

We find the following in the *British Trade Journal*: "The first piano known to have been in England was brought from Germany in 1757, and ten years afterwards in 1767, one was advertised at Covent Garden Theatre as a new instrument. The earliest patent granted in England relating to this subject was taken out by Stodart, 1777, and the next by Broadwood, in 1783. After this, the number of patents became very numerous. The earliest entry of the sale of a piano on Messrs. Broadwood's book is 1771; of a grand piano 1781. At that time the harpsichord, (which was practically a harp played on by slips of wood called Jack) was being rapidly driven out of fashion by the piano, and the newer instrument, at first not very popular, was the only one made. The first patent of an upright piano was granted to W. Stodart, in 1795, and in 1807, Southwell made it less unsightly, and gave it the name of "cabinet," which it has since kept. From 1831 to 1851, Messrs. Collard sold about 32,000 pianos,