RIFLE MATCHES.

COUNTY RIFLE MATCH.

The Cup and Prize Money presented by the County Council, to be competed for by the Volunteers Militia of Simcoe, were again shot for over the Barrie Range, on Friday last the 25th, and won by Capt. Graham. No. 1 Co., Barrie. The following are the winning scores :—

Captain Graham.	No. 1 Co.,	44 Points,
Private Wainman,	No. 7 Co.,	42 "
Private Sproule,	No. 8 Co.,	37 "
Sergeant Sutherland	No. 4 Co.,	36 "
Private Ward,	No. 5 Co.,	35 "
Sergeant Gilkinson,	No. 3 Co.,	34 "
Lieutenant Green,	No. 1 Co.,	34 "
Corporal Stewart,		31 "
Ensign Russell,	No. 5 Co.,	31 "
Corporal Roseman,	No. 4 Co.,	31 "

We are sorry to see officers contending for prizes which were evidently intended for the rank and file—the men who, in the event of the Force being required for active service, would have to use the refle. We cannot help thinking that it is rather beneath the dignity of officers to be contending for small money prizes, which should be left exclusively to the non-commissioned officers and men.

DRILL EXAMINATION.

The following were the successful competitors for the Drill Prizes:

For the cleanest and best-fitted arms and accoutrements, in marching order. Sergeant Stephens, No. 5 Company. 2nd prize Sergt. Hamilton, No. 2 Company.

For Manual and Firing Excercise.—This prize was divided between Sergeant Stephens and Sergt. Hamilton.

The Special Drill prize was also taken by Sergt. Hamilton.

The Marker's prize was after a rigid examination, awarded to Sergt. Harris, No. 2 Company.

MILITARY ATHLETIC GAMES.

Marching Order Race.—1st prize, Private W. Hayes; 2nd prize, Sergeant Major Bassett.

Hurdle Race.—1st prize Private Lee; 2nd prize, Sergeant Major Bassett.

Three legged Race.—1st prize, Priv. Ward 2nd prize, Sergt. Harris.

Sack Race.—1st prize, *Sergt. Harris*; 2nd prize, Sergt. Gilkison.

Wheelbarrow Race.—1st prize Corp. Stewart; 2nd prize, Sergt. Harris [illegible].

Standing High Jump.—Sergeant Major Bassett.

Running High Jump.—Sergeant Major Bassett.

Putting the Stone.—Sergt. Gilkison.

We understand that these games are to take place annually; and considering that they are intended to encourage and foster our Volunteer System, we hope the good people of Barrie will give them their support and countenance. Volunteers, like other men, like to be looked at and admired, knowing as they do, that as tax payers they contribute their share to the cost of the defence, and in addition give their time and service.—*Barrie Examiner.*

SMOKELESS GUNPOWDER.

(From Belgravia.)

Gunpowder, ordinary black gunpowder though it has seen some service and done some hard duty in its time, is not so perfect as to fulfill all requisitions desired; wherefore from time to time experiments have been directed to the manufacture of a substitute.

The only substitute yet invented which has met favorable notice from practical sportsmen is Schultz's wood-powder, which, from its being granulated, and consequently permeated by air can never generate fire of itself. This explosive, invented by Captain Schultez, a Prussian officer, was originally manufactured at Potsdam, near Berlin, and the factory catching fire in 1868, instead of exploding—ruining the neighbourhood, and leaving many widows and orphans, like the recent gun-cotton explosion at Stowmarket—burned quietly to the ground. A company of English gentlemen, fond of field sports, foreseeing the advantages to be derived from its introduction into England, purchased a site for its production in the *New Forest, and thither we must carry our* readers on "a visit to the Schultze gunpowder manufactory," at Redbridge near Southampton."

Here and there, at intervals wide apart, are various buildings of light structure, from one of which rises a tall chimney, instrumental in raising steam to drive a 15 horse power sawing machine, which rapidly creates the "wood powder" to be turned into use for the gun by the following process.

The grains, being collected in a mass are subjected to a treatment of chemical washing, whereby calcareous and various other impurities are extracted, leaving hardly anything behind save pure woody matter, cellulose or lignine. The next operation has for its end the conversion of these cellulose grains into a sort of incipient xyloidine, or gun cotton material by digestion with a mixture of sulphuric and [illegible] [illegible] spontaneously by time, the chief product of combustion being gum and oxalic acid, but it is, moreover, liable to combustion of a sort that may be practically called spontaneous, so slight and so uncontrollable are the cause sufficing to bring it about. Cellulose or woody matter, otherwise termed lignine, partially converted to xyloidine is, the inventor affirms, subject to neither of those contingencies. Our readers will understand that, inasmuch as the [illegible] as a constituent of the Schultze-gun [illegible] is not charred, its original hydrogen is left, and by and by, at the time of firing will be necessarily utilized toward the gaseous propulsive resultant. Next, washed with carbonate of soda solution and dried, an important circumstance is now recognizable.

The grains, brought to the condition just described, are stored away in bulk, not necessarily to be endowed with final explosive energy until the time of package, transports, and consignment. Only one treatment has to be carried out, and it is very simple. The ligneous grains have to be charged with a certain definite precentage of some nitrate solution and drying. Ordinarily a solution of nitrate of potash (common saltpetre) is employed; but, in elaborating certain varieties of white powder, nitrate of baryta is preferred.

Having traced the new powder to its final stage, we may contemplate it in the light of two distinct scrutinies—theoretical and practical. *Review* of the chemical agencies involved or that may be evolved, suggests the reaction, especially under prolonged moisture, whereby sulphide of potassium should result. Practice is confirmatory: Under the condition indicated sulphide of potassium, more or less, does result, and proportionate to the extent of decomposi*tion is the powder deteriorated. Inasmuch as* the Schultze gunpowder is wholly devoid of sulphur, so is the particular decomposition adverted to impossible; and theory, at least fails to suggest any other decomposition as probable, or even possible.

All the buildings requisite for manufacturing this explosive are cheap and flimsy, so that if it did catch fire no loss [illegible] sue. The "plant" of machinery [illegible] [illegible] wood-powder [illegible] rate with its cheap production. An explosive is often "better known than liked," such as gun-cotton; but Schultze's wood-powder requires only "to be known to be liked," as a trial of it, lately made for the satisfaction of its reader by the conductors of the *Land and Water* journal, recently showed. Indeed, it was proved to give more penetration than gunpowder, and it costs less. There is also no smoke, and consequently the second barrel can always be used at once, instead of waiting for the smoke to clear away, as when using black powder.

The reorganization of the German artillery which has been much spoken and written about of late, begins on the 1st November, [illegible] [illegible] tion of the [illegible] to the [illegible] ges expected of them by the grouping and distribution of the batteries according to their kind; such are the advantages and the aim of the re organization of the German artillery. It ought not, however, to be forgotten that besides, thirty new batteries are to be created."