rses of the Kingston school would also be available for the ing drill of the College Cadets.

Another great advantage would be, that competent drill instructors from these schools, could be sent to every corps, during eir annual training; and when it has been considered advisle, to attach drill sergeants to these batteries, to instruct lleges and schools, surely it were worth while to provide oper and uniform instruction for corps of cavalry, which have en twenty years or more in existence.

The events of the Franco-German war showing the advantage possessing well instructed cavalry, should be so familiar to all diers, that it seems unnecessary to allude to them; and we ght to remember that the lessons learnt by the Prussians in 66 were not thrown away. For in a great measure the adrable manner in which the duties of outposts, and reconnoing, were performed, conduced more than any other cause to success of the campaign:—While on the other hand, no one read the history of the French cavalry during that war, thout feeling that ignorance of the modern uses to which valry can now be put, in addition to its old *role*, contributed no small degree to many of the disasters which befel the nch arms, whose Generals received little reliable information the doings, or whereabouts of their enemy; for the important es, of being the eyes, ears, and nerves of the army, were lected by the French cavalry.

For simple bravery in the field, nothing could exceed, and we not but admire, the gallantry and devotion of those magnifit regiments we used to see in Paris; who needlessly and tlessly sacrificed themselves, attempting something approachthe impossible; and like our own light cavalry at Balaclava, entable examples of what brave men will do, but which they uld never be asked to attempt. Can anything exceed the very of Bonnemain's Cuirassiers, who charged through the eyards at Wörth; or those Lancers who being kept all day er fire, lost nearly half their officers and men, without even mselves coming into action; or the charging of the Chasseurs Afrique, down the slopes of Sedan.

Let us hope that more attention will be directed by the authoes, to the importance of the cavalry arm; and we cannot do er, than quote from a lecture at the Royal United Service tution, by Major Frank S. Russel, (14th Hussars,) who . "Half drilled men, if their heart is in the right place, valuable when incorporated with drilled and experienced ers of an infantry battalion. But in cavalry it is different. ar from being useful, untrained men and horses are absoy dangerous. They throw everything into disorder, and, like Hake's Hussars at Waterloo, are worse than useless."

THE VICTORIA CROSS.

Not of gold with glitt'ring diamonds
Is the ornament I sing,
But the soldier holds it dearer
Than the jewels of a king.

'Tis a cross of simple pattern,
Worthless in the huckster's eye;
But the soldier gives his life-blood oft,
This *worthless* thing to buy.

No ancient, foreign motto
Decks this cross, whose days are young,
But the trumpet-words "For Valour,"
In the grand old English tongue.

Peer and Private wear it proudly,
For the queenly heart who gave
Confesses all men equal
In the legion of the brave.

Dusky cross! so full of brightness
In the dauntless soldier's sight,
May you ever deck the bosom
Of the champion of the right!

And where'er the might of England
Is soon in war array,
We shall find brave hearts resolving—
"I will win the Cross to-day."

W. Ferguson.

Cartridge Manufacture.

The making of cartridges is not quite so new in Quebec, as some people suppose, for we find in Knox's Journal page 204, the following, on the 13th November, 1759.

Orders.—"Each regiment is to give three men to the artillery to assist in making cartridges; men most accustomed to this work to be chosen, who are not to be sent on any out-guard, that they may be ready, whenever they are wanted."

Thunderer Experiments.

Experiments with the view of ascertaining the cause of the explosion on board H. M. S. *Thunderer* are being carried out by a Committee at the proof butts, Woolwich Arsenal. A 38 ton gun, believed to be similar in every respect to that with which the accident occurred, indeed its sister gun from the *Thunderer's* turret, has been handed over to the war Department by the Admiralty authorities for this purpose.

The following are amongst the theories urged as causing the accident:—

1st. The existence of an air space between the shot and cartridge; this might have been caused either by the projectile not having been rammed home, or through its having slipped forward through the motion of the gun whilst being run up from the loading to the firing position.

2nd. Double loading, *i. e.*, having been loaded a second time without being fired. This was the opinion of the Court of Enquiry immediately after the accident.

3rd. The jamming of the projectile in the bore—either during the process of loading or after being fired.

The Committee evidently inclines to the supposition of an air space, all the experiments, thus far, having been carried out under this condition. Spaces varying from one foot to six feet have been left between the shot and cartridge without any result other than a diminution of the velocity of the projectile as the space was increased.

The most interesting feature of the experiments was the action of the projectile after entering the butt. For ordinary proof, flat-headed projectiles are used, which are easily found; but in this case the gun was loaded with the service shell or shot (pointed). After the first day's experiments two of these were dug out 10 feet below the solid foundation, and on the second day two passed upwards through the sand and cracked a boiler plate on top.

Those who hold the slipping theory ought to be fully satisfied with the experiments already carried out, for it is impossible for any projectile to slip forward 6 feet whilst the carriage is being run up, and even this it has been shown is not sufficient to burst the gun. Those, also, who laid the sin of double loading to the charge of the unfortunate detachment would, one would think, concur with the opinion which must be arrived at after the experiments carried out by Sir Wm. Palliser, as detailed in two articles of this number, headed "Doubly-loaded Guns" and "Experiments at Erith."

The jamming theory is that held by Sir William Palliser who is of opinion that it occurred through the partial withdrawal of the wad, it having caught in the rammer during the process of loading. We believe we are correct in saying that Sir William was supported in this opinion, by a piece of spun yarn being found attached to the rammer head after the accident. The consequence of such an accident, as the above, would be that the projectile meeting with the wad would, owing to its pointed form, override it, and being diverted from its proper course exert the force imparted to it, towards the destruction of the gun. There are very few of our readers, doubtless, who are unacquainted with the effect of a bullet meeting with resistance in the barrel of a rifle—even a loose plug of snow in the muzzle is sufficient to burst it.