target which consisted of *five plates* of *three* inches each; in fact a luminated target whose aggregate power of resistance was not equal to that of a single plate of *nine inches*, so that as far as actual value the experiment is useless, the distance was only 500 yards, so that we can easily understand the contempt with which the experiment has been treated by the United States *Army and Navy Journal*. It does seem strange that the Washington Cabinet do not give encouragement to the scientists of their own Army and Navy to undertake the solution of the problems affecting the use of heavy rifled artillery, and not leave such a vital question to mere charlatans. One thing, however, these experiments has demonstrated, and it is that Mr. WIARD'S knowledge of the success by Germany will never enable him to use the same gun for rifled and round shot, nor will it be likely to solve with heavy artillery the problem which Captain O'HEA has successfully solved with rifled small arms. It is evident from the last paragraph of the report that the experiment does not realize what *windage* means, or the peculiar action of the expanding gas which constitutes the explosive force in the calibre of a gun.

"The *New York Herald* gives the following account of a recent trial of ordnance on Nut Island, Boston Harbour:—"The experiments were made under the observation of Captain Truxton, Captain of Ordnance of the Navy Department, and under the supervision of Norman Wiard, agent of the Department and inventor of rifling improvement. For the purposes of the experimental tests there were provided two guns of 23 tons each and of 15-inch calibre. One was the common smooth bore, and the other was rifled in accordance with Mr. Wiard's invention; but in other respects there was no difference whatever. One hundred and forty pounds of powder—the largest quantity ever used in a gun—was fired from each, and the projectiles were respectively of 460 pounds weight. The targets consisted of wrought iron plates of 15 inches in thickness, and they were erected side by side, 150 ft. distant. The rifle projectile fired from the Wiard gun was of conical shape, and the one fired from the common smooth bore piece was necessarily round. The one first named went clear through the 15 inch plates, and out of sight into a sand bank in the rear. The demolition of the almost invulnerable target was complete, and so great was the force with which it was struck that a fragment of 300 or 400 pounds was thrown clear across the island, a distance of not less than a quarter of a mile. The projectile from the smooth bore gun penetrated the target only about six and a half inches, and as the advantages were precisely equal, the superiority of the rifled arm was at once established by the experiment, and admitted by the Government authorities of observation. Compared with other comparative tests this style of gun is the most destructive ever yet produced. The improvement, as the Government understands it, does not involve the manufacture of new guns to secure it. Take the present armament of our forts just as they are, and they can be rifled at one-tenth the cost that new guns can be manufactured, and at the same time their efficiency as smooth bore ordnance is not in the least impaired; and including the cost of rifling, the arms will be cheaper by one tenth than the best English guns, and for the destructive powers their efficiency can hardly ever be equalled. The improvement consists in rifling each gun with two grooves, having for a 15-inch gun a twist of about one full turn in 50 feet, and so stationing the grooves at the side of the bore that neither groove will intersect or cross the bottom or top of the bore, thus leaving it smooth at the bottom and top where the shot would strike in 'balloting,' should the gun be used as a smooth bore for spherical projectiles after being rifled. After the gun is rifled, however, it is proposed to improve the spherical projectiles now on hand by drilling three small holes in each, a little distance from the point of contact the shot or shell would have with the bore of the gun when inserted as if for firing. The holes to be equidistant from each other in the form of a regular triangle. Into these holes insert three brass pins, each to be cut, after the insertion of such, the exact length necessary to support the projectile up and out of contact with the bottom of the bore, so that the windage shall be equal all round. By supporting the projectile in the centre of the bore previous to its receiving its impulse from the powder, the windage all round alike, an achievement is arrived at by most simple means often attempted in this country and Europe without success."

Those who decry the present Military Organization of Canada, had better read the able paper of Lieutenant A. PROVOST, B. Battery of the Quebec Gunnery School, and then shew under what other system such results could be obtained. As far as the paper goes it is one of the most admirable we have ever read on the "operations of war," and taking the author as a fair average specimen of the officers of the Canadian Volunteer Force, professional military critics will argue with us that no country can produce a finer specimen of proficiency, or a more apt illustration of the value of the system that can produce such results in so short a time.

Colonel STRANGE may well feel proud of the professional soldiers he has labored so hard and assiduously to train for Canada, and we hope a grateful country will bear in mind the great services he has rendered.

The people of Canada generally should be apprised of the progress made in training soldiers under the admirable organization the country possesses, and happy to be able to give them the first example of the value they receive for appropriations that are mere bagatelles compared with the sums expended in other countries for far less reliable results.

The evidence furnished in this case goes to prove that the system of organization adopted has leavened our population with an amount of military training and knowledge which only needs the occasion to call it forth, and it has been done in so quiet and silent a manner as to escape the public observation.

As it is a matter of most vital importance to the interests of the country that just and true notions of the working of its military institutions should be brought before the people prominently, it follows that any reticence on the professional subjects of general military subject is wrong, because it prevents the public knowing what has been done with the appropriation for this purpose, leads erroneous notions of the value of military preparedness and enables the cynic and the political economist falsely so called, to misrepresent the value of military service, and wittingly, or otherwise, imperil the safety of the State.

For instance, we have an agitation now going on, the ultimate object of which it is hard to define, but the immediate good to be obtained looks to what is called increased efficiency in the Volunteer Force. Our opinions on the subject are well known. We do not believe in a reduction of the present nominal strength, but we do in an increased money grant, and we are decidedly opposed to *compulsory service*.

We believe all the objects to be attained by the possession of an efficient military force can be obtained by our present system with trifling revisions, and anything that will be accomplished by compulsory service will be valueless. We desire to know at what period since its first organization, the Canadian militia has been wanting in the hour of need; and we are sure from the example of the knowledge acquired since, it is not likely to be so in the future.

With such officers as Colonel STRANGE, and proper encouragement, the Canadian militia can be made the best in the world.

Our correspondent "R" says, as a general rule the VOLUNTEER REVIEW "tries to put the best face on militia matters," and advises us "that it is not a wise course;" but we would quietly ask the critics, what course would they follow? "R" has only *common* report for his objections. "It is said," seems to be about the whole gist of anything that can be said in reply to the Adjt. General's Reports. Those who object to the present organization, and urge amongst other objections that "it has been made to serve political ends," forget that a country with representative institutions like ours, such will always be the case, and that in the British regular service "political ends" were just as notorious and much more so than in the Volunteer Force. We are not at all afraid to "point out faults," but decline *manufacturing* facts to suit individuals. We have taken the part of "the active working man," without exhortation, and pointed out clearly the evils affecting the force long before "R" became a propounder of conundrums connected therewith.

All the evils appear to be narrowed down to the supposed failure of the "Dominion Rifle Association;" to attract a larger number of competitors, but the answer is easily arrived at, there are such things as well organised company and battalion matches,