

moment with a cigarette, who did not even ask the aspirant for office to take a chair, but curtly informed him that the President could not see *everybody*. The Act being passed, the Board has entered into the possession of patronage, and is now in the enjoyment of a golden opportunity. The recommendation that the appointments should be conferred upon men of high social status, and a turn of mind indicative of independence and impartiality has not been lost, but it is an open question whether officers of the Royal Navy have or have not that peculiar knowledge of our mercantile marine which is called experience, or whether the merchant service itself would not best supply the men who are wanted for one year to aid and abet the determination of the country in protecting our commerce from the many evils which have resulted in making this Act a stern necessity. We understand that Mr. Digby Murray, of the Board of Trade, has been constituted the official head of the newly-created branch of the Board of Trade Department, to whose manipulation the working of the powers newly conferred has been confided, and under whom we trust, the new blood will not be permitted to destroy, by the vigour of its circulation, the body for whose benefit it has been imported. Time will show whether the Act will bear any other fruit than *patronage*, but as a matter of course that is the first fruit, and it is wonderful how preternaturally ripe that fruit appears, considering how late and how hastily the tree was planted."

The following paragraph from *Fraser's Magazine* shows the light in which the primary duty of every subject of the State is viewed in Great Britain. "There must surely be a woeful lapse of historical knowledge amongst people generally, so keen to appreciate national excellencies, and amongst whom *obligatory* military service only ceased on the accession of the House of Hanover. In the lawless days of JAMES II. every county or shire had its militia regiment; unlucky MONMOUTH experienced the promptitude with which they could be assembled—the succession of a *foreign* dynasty by the intrigues of the patriotic Whigs disarmed the English people—and to this day, whenever that party is predominant in her councils, she is made naked to her shame amongst her enemies:

"Is general obligation to military service something entirely new, either to the world in general or to this island in particular? or rather, is it not simply something very old under a new exterior—a *renaissance* of the old feudal and municipal system out of which our modern civilization has developed itself? The renowned English bowmen who fought at Crecy and Poitiers were not a whit more volunteers than were the Pomeranians or Saxons who fought at Gravelotte and Sedan; nor were they in any respect inferior as soldiers to the British infantry who fought at Busaco, Vittoria, and Waterloo, and had been brought into the ranks through the agency of money and beer. This feudal system was no doubt inconvenient to kings and princes, who could only then bring a force into the field when the nobles and burgesses brought them men and money. Gradually, and after long and severe struggles, the royal supremacy was established, mainly by the aid of hired soldiers, who were frequently foreign mercenaries, and partly also by that of the great towns and

cities, which in their turn were gradually deprived of their independence in proportion as they themselves neglected the privilege and duty of personally fighting their own battles, and transferred both to hired mercenaries. On the break-up of the feudal system there followed what is known to military students as the Condottieri period, when, especially in Italy, the cradle of all modern municipal institutions, these hired forces frequently fought sham battles with each other, and sold for ready money the interests they had been hired to defend. And it was during this period that the ground was prepared and the foundation laid for standing armies which depended wholly on the royal authority. What lay historians call "breaking the power of the nobles" means, for the military man, the transition from the old system of territorial and national forces through the Condottieri period to the plan of maintaining standing armies of soldiers, whose services were purchased in detail from each individual recruit instead of *en bloc* from a military *impresario*.

The *Pall Mall Gazette* gives the following description of the new projectile, Professor Abel's *water shell* used, with such effect in the experiments at Dartmoor:

"The 'water-shell,' which is being experimented with at Okehampton, is a sufficiently ingenious novelty to merit some notice, quite apart from the success which it seems to have achieved. This shell, which was first brought forward, we believe, in 1872, was proposed by Professor Abel, with a view to utilising common shell as shrapnel upon occasion—the idea depending simply upon the transmission in all directions by the incompressible, or only slightly compressible medium, water, of the force suddenly developed by detonation. With this view the following arrangement was suggested by Professor Abel, and has been adopted in the shells now under trial. A small cylinder, containing from a quarter to half-an-ounce of dry compressed gun-cotton is attached to the fuse (which may be made to act to time or on percussion); the upper end of the cylinder (or the base of the fuse, as may be most convenient) contains a small charge of fulminate of mercury. The shell an ordinary common shell is used—is completely filled with water, and the fuse with the gun-cotton cylinder and detonating charge, is inserted and firmly fixed by screwing the fuse into the fuse-hole. On the fuse acting, the detonation of the gun-cotton is effected by the small charge of fulminate; and the force thus developed is transmitted through the water with results, so far as the bursting of the shell goes, which appear to be exceedingly satisfactory. Whether a water-shell could ever effectively take the place of a good shrapnel is a point which, perhaps, admits of some difference of opinion, and which can never be satisfactorily solved except by exhaustive and careful experiments. We are disposed to think that no such results can be looked for; for the double reason that the disruptive force sufficient to burst a common shell must always be sufficient, however established and however communicated to the different parts of the projectile, to cause a lateral dispersion of the fragments which must prove unfavourable to the production of really good shrapnel effects—a result which in a rifle-shell would no doubt be aggravated by the centrifugal force tending to throw off the released fragments; and secondly, because the fragments themselves will be of an irregular form, less favourable to sustained velocity and deficient in specific gravity as compared

with leaden bullets. In other words that artilleryists call the margin of permissible error, of this shell must be small. We are disposed, therefore, to anticipate that a water-shell will never really become an efficient substitute for a shrapnel, though the general introduction of range-finders would tend greatly to diminish the difficulties attending the effective use of a projectile which must depend so largely for its results upon the accuracy of the practice and the precision with which the shell is burst in relation to the object fired at. But it seems indisputable, after the results which have been achieved at Okehampton, that Professor Abel's clever suggestion may possess many valuable applications, and that upon occasion a water-shell may prove a very useful substitute for shrapnel. It is clearly an advantage to have a projectile which can upon an emergency be used in a double capacity—if only the idea be not ridden too hard, as it was in Sir William Armstrong's segment shell; and it will certainly occur to most artillerymen who now read of the success of this shell for the first time to inquire why, if it was brought forward three years ago, it has not been heard of before. Perhaps inquiry may be profitably extended a little further; and may seek to establish for the public advantage whether there chance to be any other meritorious or promising inventions in war material which during the past few years of what may, by comparison, be called experimental stagnation, have been languishing in the pigeon-holes of the War office. If so, we trust that General Campbell will signalise his advent to office by unearthing them, and by resuming something of the activity in experimental inquiry which characterised this country a few years ago, and which is simply indispensable if we are to retain our position in regard to our material of war. Perhaps we may regard the very valuable Okehampton experiments as an earnest of such resumed activity. At any rate, it is quite certain that these experiments will solve many vexed questions in regard to the use of field artillery; and, independently of their immediate practical results, they are likely to be eminently useful in exciting or sustaining an interest among professional artilleryists in regard to matters specially pertaining to their craft.

"Prussia has recently concluded fresh military conventions with the Grand Duchy of Saxe-Weimar, the Duchy of Saxe-Meiningen, Saxe-Coburg Gotha, Saxe-Altenburg, and Anhalt, and the Principalities of Schwarzburg-Sondershausen, Schwarzburg-Rudolstadt, Reuss the older and Reuss the younger, Lippe-Detmold, and Lippe-Schauenburg, by virtue of which the princes of those countries cede the command of their military forces to the King of Prussia and allow their contingents to continue amalgamated with the Prussian Army. A novel feature in the new conventions is the stipulation introduced on the part of Prussia that military officers stationed in the said countries shall enjoy perfect immunity from local taxation of every description, except what attaches to real property of which they may be possessed."

The foregoing paragraph will shew what a *rope of sand* binds the German Empire together, and the anxiety, as well as energy displayed by PRINCE BISMARCK in trying to stamp out ultra mountain influence west of the Rhine—but the old rhyming proverb may again come into use:

"The Pope, the devil, and the Russ,
Again in Germany are loose."