

not be suddenly formed; it must grow. Its duties must be well known and all circumstances provided for. After referring to the organization of the Prussian Etappen Department, the lecturer said it was impossible to test an organization of that kind in any other way than by giving it an advancing army to feed, as might be done at the manoeuvres; but the same thing could be practised on a small scale by the movement of small bodies of troops during the summer. He next summed up the lessons learnt from the late manoeuvres—first, we had been taught the necessity for and value of such manoeuvres. Secondly, that they were possible, and even popular, in England; that the military spirit of the country was not dead, but only dormant, waiting the moment when our interest or some unbearable insult should compel us to war. Thirdly, that the whole army was somewhat deficient in knowledge of minor tactics. Fourthly, that we were very backward in the organization of such necessary departments as those of intelligence and supply. Lastly, that what there was of our army was splendid material needing only a little more organization and a few such manoeuvres as we undoubtedly should have now, to put to silence all the ignorant talk about England's powerlessness to make her voice respected. What nation would think lightly of a British contingent of 100,000 men with the whole country its wealth, and energy, behind them? Let them read every day in the papers the astonished utterances of foreigners who found the emigration, Republicans and all, gathered in heart round the sick bed of the Heir of the English Throne, or engaged in beseeching Heaven to spare his life. Henceforth we might be certain the nation would pull together both in peace and war. The lecturer next put forth several suggestions for discussion: 1. That future manoeuvres should only be the completion and crown of a systematic plan of drills and instruction in minor tactics carried on throughout the year, commencing with mere parade work, and gradually ascending through perfect drills of units; then combination of the three arms in small bodies, commanded by comparatively junior officers, under the eye of the generals; then brigade drills where possible before combination into divisions. The divisions themselves to be drilled and manoeuvred before acting against each other. Outpost duties to be performed as often as possible. 2. The system of transport and supply should be placed on a more comprehensive basis, and an attempt made to assimilate the supply of the troops throughout the year with that of an army in the field. 3. To practice the supply departments fairly a division should march 100 miles, supplied from the base of operations, and the march should be not too near London. 4. Every general commanding a division should have a chief of the Staff who should be charged with the responsibility that all orders be properly carried out. 5. The infantry must learn that their place was not alongside the rifled field guns, but that the latter might often be advantageously posted as much as 1,000 yards distant. The soldiers must show more audacity in pressing forward, and less readiness to retire. Bravo they would be in real battle, but the force of habit was almost irresistible. Let them consider how a month or two in the trenches spoil soldiers for the field. 6. Mobility being of the greatest value, some modification at least of the stiff British line was imperative. 7. Cavalry should have more systematic practice of outpost and patrol duties officers and men being constantly required to bring in information. 8. Since so much

responsibility had lately been given to artillerymen, tactical studies were absolutely necessary. All the minor operations of war should be practised throughout the year, so that there might be proficiency in the autumn. Having won golden opinions last autumn, we must take care to keep them by further progress.

OPINIONS OF THE PRESS ON THE GEORGIANA ARBITRATION.

The speeches of Earl Granville and Mr Gladstone are not calculated to raise very strong hopes of a reconsideration of its position by the American Government; any reliance placed upon the moderation and good sense of that Government does not seem to have much support. But there is everything to hope from the firm tone of Ministers. They told the Americans last Thursday that the claims for constructive damages cannot be entertained, and to that decision the Government mean to adhere. The decision is right, and it will have the support of all parties in Parliament who respect the honour of Great Britain, and desired to see it respected.—*Scotsman*.

At least it is a comfort to feel assured that the Government is supported by the Parliament and the people of this country in its determination to "state its case in the mildest terms," to disarm anger and impetuosity by courtesy and forbearance, to make it easy for the Government of the United States, if the pride of maintaining a false position forbids them to accept the true interpretation of the Treaty, at least to consent, in the interests of peace and friendship, to cancel an instrument which fails in the elementary condition of a contract mutual agreement as to its meaning and intention.—*Daily News*.

What we have to concern ourselves about now is how to treat the American demands; and we hold the opinion that, whilst absolutely refusing to entertain them, we need not suggest that they were dishonestly made. But that is practically what Mr Gladstone has done; and, as as much as we sympathize with and applaud the decisive language which he declares it to be impossible for England to entertain such, or allow them to be entertained by any tribunal whose authority we admit, we are compelled to consider, with so many of his censors yesterday, that his language has been indiscreet, and will probably be mischievous.—*Standard*.

If the Volunteers have done no other service to the country, they may, at least, claim to have gradually (very gradually) opened the eyes of the military authorities to the use of competitive practice in teaching the soldier the use of his weapons. We all recollect that after years of objection the Royal Artillerymen were allowed to fire for prizes for the first time last year at the N. A. A. meeting at Shoeburyness. The N. R. A. has for two or three years given prizes for the Infantry of the Regular Army. Lord Napier of Magdala, that far-seeing soldier, instituted prizes, not long ago, for the Army in India, and now at last we observe by a War-office order that the amount of ammunition issued to the Royal Engineers and Infantry is to be increased from 90 to 100 rounds per man, and that "ten rounds may be expended in shooting matches between companies and battalions, the conditions of which will be regulated by commanding officers, who will consult the Deputy Assistant Adjutant-General for Musketry of the district."—*Volunteer Service Gazette*.

The London *Engineer* presents its readers with illustrations of the batteries of the ships of the *T Vanguard* class, which carry six 12½-ton guns in a central battery on the main deck, and four 12½-ton guns in a smaller central battery on the upper deck, with four 20-pounder breech loading guns mounted on Captain Scott's anti-torpedo carriages outside the armor-plating. These vessels, it states, with their heavy midship batteries—powerful fire right ahead and right astern, and light ends—have proved themselves on the whole to be good sea boats, fulfilling the expectations of Mr. Correy, and the Board of Admiralty, by whom six vessels of this class were ordered to be built. The *Vanguard Iron Duke*, and *Audacious* are already in commission, and it is probable that the *Sicilia* and *Triumph* will likewise be tested, when ready, with the *Audacious*. There are some slight differences of detail in the fitting of these vessels, a portion of them being propelled by single screws, the others by two screws; and the *Sicilia* and *Triumph* are sheathed with wood. These vessels have a speed varying from 14½ to 16½ knots, and are found to be very heavy under steam. Their 12½-ton guns are of the Fraser pattern, and, being rifled with the Woolwich or gaining twist, fire studded projectiles of about 260 lbs. weight, with a powder charge of 60 lbs. of ordinary rifle grain powder. All the guns are mounted upon carriages fitted and arranged by Captain Scott, and worked by his mechanism, by which a large arc of training and great precision of fire is attained. An outline of the gun carriage slide is given in the illustration. The crown wheel pinions and handles at the rear of the slide actuate the pinion which gears into the rack, and thus give motion to the slide, which revolves or is trained round the axis of its pivot at the port. The handles at the side of the slide, immediately in advance of the training handles, work pinions which gear into suitable wheels, and give the requisite motion to the endless chain to which the carriage is temporarily connected after the gun is required to be either run in or run out. Besides carrying from 12½ ton Fraser guns, each of these vessels is provided with four 20-pounder Armstrong breech loading guns for the special purpose of sweeping an enemy's tops or clearing crests of fortifications, and for repelling shallow draught monitors or torpedo boats. These guns are provided with special carriages designed by Captain Scott, Royal Navy, to give 30 degrees of elevation and 30 degrees of depression. This great extent of depression is given to enable the anti-torpedo guns, when mounted upon the upper decks of the lofty vessels, to be fired down through the decks of low-sided turret ships. It has been recently proposed to utilize the Armstrong breech loading 6½-pounders by mounting them in a similar manner upon the upper decks of the *Ayacucho* and other vessels.

Some one has been testing the accuracy of thermometers. He took one mounted on box-wood, one on metal, and one very dirty. In the shade one degree covered the range of difference between them. In the sun they differed 10 degrees. The method of mounting seems to make a variation in the effects of heat, and may account partly for the well-known fact that, thermometers as well as doctors, often disagree.

A Kentucky girl says that when she dies she desires to have tobacco planted over her grave, that the weed nourished by her dust may be chewed by her bereaved lovers. There is poetry in the idea.