nor is there any practical distinction between the rifle corps still retaining their original designations and the ordinary regiments of the line. But, for the purposes in view, we must have Mounted *Infantry*, or, in other words, troops taught by special training to use the infantry weapon with the best possible effect. The weapons of cavalry and artillery are different also, whereas, it is the very essence of the case before us that the troops thus to be provided with new means of locomotion should be genuine foot soldiers, prepared to act as foot soldiers do. Of course, certain special recommendations would be desirable. The officers should be quick sighted, good horsemen, and accustomed to study country by hunting or other field exercises. It is also suggested that they should be ready, self reliant, able to speak at least one foreign language, and acquainted with telegraphy. So, again, for the non-commissioned officers and men; they should be smart, intelligent, rather under than over sized, and as a matter of course marksmen, or first class shots. A few advantages in the way of pay would render the service attractive, and, indeed we can hardly doubt that, just as in our own generation all but foot soldiers have been made Riflemen, so a few years would suffice, if necessary, to turn half the Line into Mounted Infantry or Carmen.

The object, it will thus be seen, is to ensure the presence of a large force of infantry at a particular spot under circumstances requiring great quickness of movemnt. It will not do to arm cavalry with infantry rifles, for that would not make them genuine riflemen. Neither will it be sufficient to provide riflemen with horses, unless percautions are taken to prevent them from slipping out of ther proper skins and figuring as cavalry. But we can certainly teach troops of the Line to ride, and yet to act, not as dismounted Dragoons, but as regular foot soldiers. It is simply a question of locomotion—of adding to the rapidity of an infantry march. In war time conjectures will infallibly occur at which such a resource would be invaluable. In certain situations both cavalry and artillery might be useless, or exposed to great peril for the want of a small body of infantry. The German cavalry discovered the necessity of the case in the late war and took measures accordingly. Our correspondent gives an interesting illustration of the subject, drawn from the Indian campaign of 1857. The Sepoy mutineers were men who could march under an Indian sun thirty miles a day for a week together—a feat, as we need hardly say, quite beyond the reach of the European soldier. Relying on this exceptional capacity, they watched their opportunities, got a start of our troops, and so contrived to elude their pursuers for more than a year together. At last a small body of mounted Riflemen was organised, and by the aid of this force the affair was successfully finished in less than a week. In conclusion we are judiciously reminded that no country in the world is so well adapted to this kind af practice as our own, "where at every mile you find a crest on which riflemen can act in position under cover, while their horses are sheltered close at hand in the next hollow." In another six months we shall have the Autumn Manœuvres again, and by that time, perhaps have provided ourselves with the means of testing to some extent the value of a suggestion which is certainly very reasonable, and which will not make any heavy demands on either the War Department or the Treasury.

THE LAUNCH OF THE *RALEIGH*.

The launch of the *Raleigh* on Saturday at Chatham adds a new frigate to the British Navy. The main features of her construction, which distinguish her from the old-fashioned type of frigate, are her capacity to carry a heavy armament of a modern character and her enormous engine power; and the objects which have been sought in her design are an exceptional speed and a power of protecting herself with a heavier artillery than is usually carried by vessels which may be able to match her in speed. These two characteristics give a special importance to the *Raleigh*. The first vessel of the kind built for the British Navy was the *Inconstant*, which was launched in 1868, and her success has been so great as to induce the Admiralty to gradually add a small squadron of such vessels to the Service. The *Active* and *Volage* succeeded the *Inconstant*, but were constructed with the idea of obtaining, substantially, the same advantages in a smaller compass. Since their construction it has been, after much discussion, decided that a high rate of speed and a heavy armament can only be guaranteed by wooden vessels of a large size. To obtain a speed of fifteen knots an hour it is absolutely essentail to have engines of exceptional power and size; and it has been found impracticable, if not dangerous, to endeavour to obtain such a rate of speed in small vessels. So the construction of vessels like the *Active* and *Volage* was abandoned, and the *Raleigh* designed on a scale between the *Inconstant* and *Active*. And, indeed, since the *Raleigh* was laid down, so alive has the Admiralty been to the importance of increasing the strength of the navy in wooden vessels as to propose this year to construct two more vessels of the same kind—the *Boudicca* and the *Bacchante*. The tonage of the *Raleigh* is 3210 tons; horse power nominal, 800. She is built of iron on the tranverse system, and has iron girders and supports. This iron skin is coated with two layers of wood, that nearest the iron being teak and the outer coating of oak and mixed woods. She will carry twenty-six guns of various calibre, the largest being 12½ ton, or 200-pounders. It is this capacity to carry such a powerful arment which secures the *Raleigh* her special superiority over vessels like the *Active* and *Volage*. It is admitted now by most naval constructors, that although size is an unquestionable disadvantage to ships in naval warfare, and that although expense is another objection in the construction of vessels of a large tonnage, yet the powers of carrying a powerful armament is so essential, and is, for smaller vessels, so impossible of attainment, that those advantages are more than recompensed by this one advantage, which can only be secured in frigates and large corvettes. Thus the *Volage* has only a burden of 2322 tons, compared with the 4066 tons of the *Inconstant*, and her cost was, of course, proportionately different, but the armament of the *Volage* is only equal to that carried on the upper deck of the *Inconstant*. The *Volage* carries guns on her upper deck only, and these consist of six 7 inch muzzle loading rifled guns, two on each side of the quarter deck, and one on each side forward of the funnel, with a poor 64-pounder pivot on her top gallant forecastle, and another of the same calibre on her poop. But she is unable to carry any guns on her main deck, and cannot therefore compare with the *Inconstant*, whose main deck battery consists of ten 12-ton rifled guns. This difference is so important, and marks so essentially the difference between the two vessels, as to warrant the conclusion which, as we have already said, has been arrived at, that diminished size and cost have been purchased at too dear a price. For their own class of vessels, both the *Volage* and *Active* are perfect; they do not carry a pound too much weight, and their construction is so delicate as to be superior in some points to the *Inconstant* In a cruise their speed would be surprising and their success would be certain, could they only escape the batteries of a heavier armed vessel, and maintain their engine power at the highest pressure. But the Government seem to have decided that such vessels are too delicate to be relied upon in rough work, and that they are too severely handicapped, both in size and armament, for the ordinary purposes of naval warfare. While the *Raleigh* has not the tonnage of the *Inconstant*, it has a sufficiently powerful armament, and is guaranteed a sufficient speed to make her a more useful and trustworthy vessel than either the *Volage* or *Active*. She will have the inestimable advantages of standing easily the racket of powerful engines; will, or rather should be, a match in point of speed for any armed wooden, yessel afloat, and will carry an armament capable of meeting on equal terms any antagonist of equal speed. The question still remains to what extent we require the construction of wooden vessels like the *Raleigh*. The answer, at present, is that they cannot be dispensed with, and that their service in real action may be found, in deed, indispensable. Had the long sustained battle between guns and armor been settled this question need never, perhaps, have been asked, and the launch of the *Raleigh* would have been an error in judgment. But it is impossible to assert that the class of ironclads which must now be built can hope to satisfy every want in naval warfare. They have gradually developed such special characteristics, and are designed to meet two such apparently irreconcilable needs, as perfect protection from shot, and as perfect carriages for the largest guns that they can only be regarded as having a special mission. Then again, the introduction of torpedoes has levelled the differences of strength between wooden and ironclad ships, until at length it is recognised that to be deficient in the fastest wooden vessels we can build, which are capable of carrying fair armaments, is to want an element of real power in our fleets. The chances of naval warfare are still sufficiently open to leave many chances to our new wooden walls; but our wooden men of war must be superior in speed, construction, and armament to their predecessors. Battles will not be fought out by ironclads alone, nor can our ironclads by themselves be capable of giving that protection to our commerce which in time of war it would have a right to demand. These new vessels such as the *Raleigh* may find themselves in the position to follow Admiral Farragut's advice—"the best way to defend your own ships is to attack the enemy vigorously", and they would, we think, find it possible at times to follow this advice prudently as well as courageously. They would be exposed to the common enemy of all men-of war, torpedoes; and they would have a friend too little recognised in such matters, smoke, while, probably, they would be superior in speed to any enemy. As an authority on these matters has said, in quoting the gallant Admiral's advice, he "nobly seconded the precept, as, in the wooden frigate *Hartford*, he fearlessly led his wood-built squadrons through lines of torpedoes and floating ob-