spur, the Gorgon, the Cyclops, the Hecate, the Waterwitch and the Inconstant, all heavily armed and plated, and the last named being regarded as by far the fastest fighting ship afloat. In addition to the ironclad squadrons there are nearly 400 ships of the line, corvettes and gunboats, carrying no armor, but with the newest and most powerful artillery The prospects of any intending invader of England are decidedly very slim.

"Germany," says the Vienna Exposition correspondent of the *Scientific American*, "is best represented by the contributions of Fred. Krupp from his immense establishment at Essen. A block of crucible steel weighing one hundred thousand pounds, illustrates the capacity of the steel making department. It has been worked into shape by the great fifty ton steam hammer, which is one of the wonders of Essen. A steel cranked axle for a locomotive is a splendid piece of work, and smaller straight axles, intended for cars and for tenders, are very fine examples of hammer finish; and a considerable number of specimens of locomotive work are of the same admirable quality. Some of these are of Bessemer metal. A considerable number of guns for both land and sea are exhibited. On one of the largest he has adopted the Ericsson compressor, which is one of the most beautiful and effective contrivances of its inventor. The guns are generally breech loading, are rifled with a large number of narrow grooves, and are mounted on iron carriages. The largest gun has a calibre of 305 millimetres—twelve inches—and weighs 36,000 kilogrammes, 80,000 pounds. It has a magnificent finish, and is made of beautifully homogeneous metal. These are built guns, or, as the maker describes them, are constructed upon the ring system of Armstrong. In most cases the recoil of the gun is taken up by a very neat form of hydraulic gear, which we should expect to work well, and which experiment is claimed to have proved satisfactory. Among British exhibitors, Cammell & Co., John Brown & Co, Vavasseur, and Armstrong & Co, compete to some extent with Krupp. The two first present fine examples of heavy work, and their armor plates attracts much attention. Several are shown which heavy shot have been driven against, making deep indentations, which are bordered in some instances by a sharp fin, forming a kind of collar, and showing well the quality of the metal. The other firms exhibit heavy and well built guns. Several torpedoes are exhibited, which are principally noticeable as reminders of the revolution which seems impending in the methods of naval warfare—a revolution which was inaugurated as long ago, at least, as the time of our Revolutionary war, and which has exhibited its greatest progress in the United States, where Bushnell, Robert Fulton, John P. Taylor, and other inventors of an early period, and Ericsson, Ley, and others of our contemporary's engineers, have proved that it promises to change completely the tactics and material of navies at a very early date."

The Prussian army administration, after a careful review of the whole matter, is said to have arrived at a decision adverse to the arming of cavalry with revolvers, but the cuirassiers will most probably be armed with a breech-loading pistol, upon which experiments are still in hand. Charging with the sword is regarded to be the principal duty of cavalry when they can be of any service in the field as an attacking force.

ENGLAND'S MILITARY STRENGTH.—The London *Times* says that a short Parliamentary paper, procured at the instance of Mr Vernon Harcourt, gives the public an opportune insight into one of the most controverted questions of the present time. "Mr Harcourt" continues the *Times*' summary, "has consistently argued for some time past that our military establishments for home service were on an extensive scale. Lord Elcho that, after an addition of £5,000,000 to the army estimates, and a pretentious attempt at military reorganization, we had actually fewer troops at home for the defence of the county, than we had twenty years ago. The inference from Mr. Harcourt's return is that Lord Elcho was wrong at every point. It appears that in the last twenty years we have all but doubled our cavalry, more than doubled our artillery, trebled our engineers, and added to our infantry very nearly 10,000 men. Altogether, and taking the total numbers of the regular forces of the two periods compared, we find that in 1853 we had 71,000 troops at home for the defence of the Kingdom, while in 1873 we have 98 719 These returns take no account of militia or volunteers. As far, therefore, as mere comparative figures are concerned, Mr. Harcourt was right. We are now maintaining for home service a larger army than was thought sufficient in most years of the greater wars. But the true questions of politcans is not whether we are keeping on foot a larger force than in former times, but whether the force actually kept on foot is larger than the present times require. The conditions of modern warfare, as they have been presented to us in unmistakeable shape, teach us the necessity of larger and more complete preparations than were required in former days."

An experiment was recently made in England with a 30 foot service cutter, fitted as an international lifeboat with an application of cork under the thwarts between the gunwale at the sides and the ends of the thwarts, together with a layer of cork on the outside of the boat firmly riveted, so as to resist the force of friction or any other that might arise. The boat was filled with water and forty men placed in her without her giving evidence of foundering. She was then, after some time, forcibly capsized by twenty men hanging on her gunwale, but was righted by fourteen men hanging on to her bilge battons, in about five seconds. The princip. can be applied to any service boat.

The Eighteenth Royal Irish possesses the oldest soldier in the British army, or perhaps in the world, in the colonel of the regement, General Sir John Foster Fitzgerald, the senior general in the army, and a veteran of eighty years' service, his first commission as ensign bearing date the 19th Oct, 1793. At the early age of eighteen this distinguished officer was a major, having obtained his first commission when he was eight years old; in six years and ten months after he was a captain, and joined his regiment, the Forty sixth, as a captain of seven years' and a half standing, at the age of sixteen. Sir John has been a full general for the last nineteen years, and colonel of the Eighteenth Royal Irish for the last thirteen years. He commanded a light infantry regiment at the battle of Salamanca, and a brigade at the Pyrenees as lieut. colonel.

The house painters and decorators of the city of London are on strike.

It is estimated the coming hop crop will yield 7cwt, to the acre.

A correspondent of a Prague journal says that the Sultan and the Khedive are growing more and more intimate; and that if the idea of gaining over Persian and Afalik Ghazee to join Turkey and Egypt in a combined Mahommedan policy were realized, such a politico religious coalition might prove very formidable to any power whose interests are connected with the east. The Turkish and Egyptian armies together form already an imposing force. The Turkish fleet is already, as respects the number of iron clads it contains the third in Europe. It has five iron clad frigates armed with 300-pounders, seven iron clad corvettes, most of them armed with 200 pounders; two monitors, and four iron-clad gunboats. An American admiral, the writer goes on to say, expressed great admiration to the Sultan the other day, at the solidity, the excellent equipment, and the organization of this fleet. which is constantly on the increase

Letters from the French departments now being evacuated dwell with some surprise on the slow manner in which the Germans are getting over the ground, and compare their leisurely retrograde movement with the rapidity of their marching three years ago. However, it must be remembered that three years ago the German troops had an object in view, and were sustained by the excitement of war. It is now remarked that they only get over about 16 miles of road a day, and that their columns suffer a great deal from the heat. On the 24th a force of 2,000 Bavarians lost eight men from sunstroke, while thirty two men fell seriously ill, and had to be left behind in the hospital. The dead were buried at Sedan. It is reported that the German troops are returning home heavily laden with plunder of all descriptions, and this may account for the slowness of their movements. At Mezieres the Prussians are said to have sold off all the provisions they could not carry away with them. The provisions thus disposed of were originally intended for Vinoy's corps, and then for the army of MacMahon. After living upon them for three years the Prussians disposed of the fragments which remained by public auction.

From the lately adopted law for the reorganisation of the French army it appears that it will in future consist of four armies, which, in turn, will be made up of three infantry and one cavalry corps; each infantry corps will consist of one cavalry and three infantry divisions; and each cavalry corps will consist of two cavalry divisions. The infantry division is to be made up of four regiments of infantry of 2,500 men and one battalion *forestiers* of 900 men. The cavalry division will be composed of four regiments of escadrons with 800 horses. The artillery will be as follows: Four light mounted batteries (4 or 5 pounders) for the infantry divisions, two mounted batteries (4 or 5 pounders) for the cavalry divisions. The artillery corps for each infantry corps will consist of four heavy batteries (12 or 7 pounders), two mitrailleuse batteries, and two mounted batteries; that of a cavalry corps, three mounted batteries, among them one mitrailleuse battery. The reserve will have six heavy batteries, four mounted batteries, among them two mitrailleuse batteries. The French field army would thus count 332 batteries, with 4,992 pieces, in time of war.

Though the benefits to be derived from the new depot system inaugurated in England are not yet arrived at, £1,808,000 are devoted to the experiment.