

AMERICA IN EUROPE.

The immense effect upon Europe which the triumphant vindication of democracy in the United States is destined to have is already making itself signally apparent. Tremendous revolutions abroad are being born of the events of the last sixty days in America; whether peaceful or violent remains to be developed. All Europe is suddenly nervous with premonitions of an "impending crisis." Says one of the English journals: "It is not the first time that America has revolutionized Europe. The French troops returned from helping Washington to defeat England, only to cut off their own King's head. Germany is saturated with American securities, while German emigrants have filled Austria and Prussia with the spirit of Trans-Atlantic democracy. Ireland is but an outlying settlement of Federal territory, &c."

The advocates of Reform in England have just held a grand convention at Manchester to organize a movement for making the enfranchisement of the workingmen a test at the next hustings. One of the chief speakers at the convention was Mr. Forster, of Bradford, who, in the course of his eloquent speech, addressed this significant warning to the aristocracy of England:

They were almost the only aristocracy left. It had gone in France, Germany, Italy, Russia, and it was going in Spain, and the aristocracy of England would see more and more that it was necessary they should not put the feeling of the people against them. (Loud applause.) When the aristocracy turned their eyes across the Atlantic—and they could not help doing so—(loud cheers)—what did they see? What was it made such a large proportion of our aristocracy espouse the cause of the South? He did not believe it was the love of slavery, or even hatred to a republic, though that might have had something to do with it. (Applause.) He believed that it was an instinctive feeling that there was a chance for aristocratic government such as had not been seen before; and in that manœuvring oligarchy of the South, although they might not be proud of them as a very good imitation of themselves; (a laugh), yet, after all, there was the hope that there, in a young Anglo-Saxon country, an aristocracy was taking root, which, if the South obtained power, would be a strong force in the world. It was an instinctive feeling of that kind which made the aristocracy rally to the South, and made one of their most talented representatives, (Lord Cecil) say in the House of Commons that the South were our natural allies. (Loud laughter and groans.) They certainly were natural allies of Lord Cecil's order, but not the natural allies of England. (Applause.) That hope, however, had now vanished to the winds. (Loud cheers.) The aristocracy of the South existed no longer. (Prolonged cheers.) No aristocratic government was possible there. (Applause.) There had been an article written lately in the Quarterly Review. (Derisive laughter and hisses.) A man must write very fast in these days if he would keep pace with history. Probably that article was written a week before it appeared; but by that time the hopes of the writer were dashed to pieces by the hard logic of facts. (Loud applause.) The writer said: "The war in America has blown the fabric of democratic theory to the winds." (Roars of laughter.) By "democratic theory" was meant popular government. (Applause.) It was well known how prophecy after prophecy of this kind have been proved to be false, almost as soon as they were uttered. The democracy was to be too weak to carry on the war. It had carried on with success such a war as the world never before saw. It was said that Government would be at an end directly they parted with success; but the people had adhered to their Government as our aristocracy had never adhered to its Government. (Applause.) If the war had blown the democratic theory to the winds, what would the peace do? (Loud applause.) He would venture to prophesy that this "blood-thirsty and revengeful" people of America (a laugh) would take such revenge as was never taken by any government, whether monarchial or aristocratic. The revenge enforced upon the rebels would be this bitter revenge—that they would no longer be allowed to make slaves of their fellow men. (Enthusiastic and repeated cheering, the whole audience rising to their feet.)

The New York Evening Post publishes the following extract of a private letter, written, it says, from France, "by one who has the means of deducing his conclusions from a wider and closer survey of the political world of Europe than most men have the opportunity to take." We presume that the writer is Mr. Bigelow, our present minister in France:

"The effect produced in Europe, as you will see by the journals, by the news of Mr. Lincoln's death, has been quite unprecedented. Familiar as I supposed I was with the currents of public opinion here towards the United States, I had no idea of the interest with which the progress of our war has been watched by the masses. I am quite sure the death of no other foreigner, sovereign or subject, by whatever means, would have produced so much emotion. Our minister receives every day letters of sympathy, numerously signed, from all parts of France, and from obscure people as well as from the most conspicuous. Nearly a dozen Masonic lodges have already sent him addresses, and similar ones will probably continue to arrive every day for weeks to come. The tone of the press, as you

will remark, has also changed. The government cannot resist the popular feeling; and is obliged to join in the general reaction. The universal reflection now in all circles is that we have accomplished, with our Democratic government, results that could never have been accomplished with any other. The republicans are taking advantage of this to keep the subject before the people as much as possible.

"The death of Lincoln is destined, I think, to work a radical change in the constitution of France. It is impossible for the government, if disposed, to resist this effect of the lessons in political science taught by the United States during the past four years.

"You can hardly imagine what a sensation was produced by the report brought by the last steamer that Mr. Stanton had taken steps to reduce the army some four hundred thousand men. It was to Europeans the most incomprehensible step imaginable. It showed how falsely we had been accused of intending to profit by a peace to adopt an aggressive foreign policy; it showed how absurdly they had estimated the difficulties we would encounter in disposing of our vast military force; and above all, it showed the folly of standing armies in a light in which it had never before been presented. The effect of this report upon our credit was felt instantly. Applications have already been made for the agency to sell our bonds in Paris, though the government has not yet lifted the interdiction upon their quotation at the Bourse. No one in Paris would have touched them three weeks ago."

The Volks Zeitung (People's Gazette) of Berlin forcibly says:

"Every Republican in Europe now holds up his head, prouder and freer; he need no longer drop his head before the most incarnate monarchist; for never, since the commencement of history, have republican institutions proved truer than now. The tone of the Liberal press becomes more confident and bolder, while the organs of the aristocracy can hardly suppress their rage, and try to find consolation in the daily waning hope of a military despotism. France, too, recovers her Republican conscience; for it is reported from all districts that a new spirit has pervaded the masses since the fall of Richmond, and principally since the death of Lincoln; and this spirit causes anxiety and care to the men in power. Richmond was the citadel of tyranny and barbarism for both worlds, and its fall was the second storming of the Bastille.

MARRYING A CORPSE.

In Bombay, recently, occurred the following strange ceremony—the principals being a living woman and a dead man, of the Cammattee caste. The relation that had existed between the living and the dead was of a left handed nature. They had lived together for many years as man and wife, when, after suffering a febrile attack for only four short days, the man died:

Agreeably to the peculiar custom of their caste, it was imperative, ere the corpse could be removed for interment, that the sacred rights of matrimony should be performed. The sad intelligence was soon communicated to the neighboring residents, and the loud and vehement hammering of tom-toms had the desired effect of collecting a host of friends and acquaintances, and a fluctuating stream of passers-by to the spot. A gooroo, or priest, being summoned, and the necessary preparations for the celebration of the nuptials being hurriedly completed, the ceremony commenced. The inanimate "form divine" was placed against the outer wall of the verandah of the house in a sitting posture, attired like a bridegroom, and the face and hands were besmeared with liquid turmeric. The woman also was clothed like a bride, and adorned with the usual tinsel ornaments over the face, which, as well as the arms and the drapery, were daubed over with yellow. She sat opposite the dead, now addressing it in light and unmeaning words, as is customarily done on such occasions, and then chewing bits of dry cocoonut and squirting it on the face. And thus the ceremony proceeded and continued for three or four hours. At length, as the sun was nearing the horizon, the nuptial ceremony was brought to a close, and the preparations for the interment commenced. The dead was divested of his bridal attire, then bathed, and finally laid upon a bier and covered with a cloth of silk. The face was then rubbed over with some red powder, and in the mouth were placed some betel leaves. The widowed bride then looked her last at the shrouded form of him whom never more she would behold, when, amid agonizing shrieks and deafening tom-tomming, the bier was lifted up and the funeral cortege proceeded in the direction of Sion. One man—a near relative of the deceased—preceded the corpse, throwing, at intervals, a handful of *pice* to the right and to the left, which were being eagerly picked up by a troupe of little urchins.

—Somebody has found out a new way of taking pictures, by which they can be taken better in the night than in the daytime. A photographer has missed several from the frames that hang by his door, and doesn't approve of the new plan.

THE ATLANTIC CABLE.

PREPARATIONS ON BOARD THE GREAT EASTERN—SCIENTIFIC TESTS.

The London Telegraph of May 23 has the following interesting account of the preparations on board the Great Eastern for laying the ocean telegraph cable:

DIFFERENCES BETWEEN 1858 AND 1865.

A visit was paid to the Great Eastern a few days since by a large party of the directors' friends, and it may be said that all who understood the preparations which they saw came away with a greatly strengthened confidence in the future of the new cable. Since 1858, when the first Atlantic line was laid, the advance that has been made by the scientific world towards comprehending electrical phenomena is very great. It has been said, by a man well qualified to speak on the subject, that electric science has passed, since that time, from its childhood to its maturity. So far as the phenomena connected with long electric circuits were concerned, we had in 1858 no knowledge whatever. The instruments in common use were unsuited to receiving signals through a great length of cable; the necessity of providing for the conductor an insulation so perfect as to approach an absolute condition was inadequately appreciated. The best preliminary test for a long cable had not been devised, and the old Atlantic telegraph was laid without having been subjected to any searching test on shore. Everybody had advice to give concerning the management of the wire, but no one recommended the precautions which subsequent experience has shown to be necessary. When the signals began to fail the battery power was augmented, and electro-magnetic induction coils, which rapidly helped on the destruction of the conductor, were put in circuit. No one thought of "nursing" the cable—of humoring its feeble attempts at articulate utterance, and of finding out what it said rather by listening acutely than by constantly calling on it, in the language of the Victoria gallery, to "Speak up." The old cable, however, is dead and gone; part of it has been picked up and applied to ignoble uses, as a race-horse past his work may be put into the shafts of a Hansom; part of it has been abandoned, and lies where it may rest till the end of time, in the "dark unfathomed caves" of the deep sea. Let us turn to the practical present.

SCENES ON BOARD THE GREAT EASTERN.

The Great Eastern looks just now more like an engineer's workshop than a sea-going ship. The vast expanses of her deck are covered with wooden sheds and piles of timber. There are smiths' forges below, and between the decks you might fancy yourself in a machinist's factory. The great engines of the ship, it is true, have lost the bright look of machinery which is in constant use; and the huge dull masses of iron seem asleep, or in a trance. If you descend the ladders which lead to the boilers and furnaces—an expedition which is more like going down a mine than any other to which it can be compared—you find yourself in the midst of darkness, solitude and cold; but in those regions of the vessel where the cable is being shipped and watched there is every sign of keen, vigilant intelligence. When you understand what is being done, you see something more than this—that scientific foresight of the highest order directs every step; and that the thick tarry rope, coarse and rough to appearance, which lies coiled away under water in the tanks of the ship, is manufactured, scanned and tested with as much care as the nicest optical instrument in an astronomer's observatory, or the most delicate apparatus of fragile glass ever applied to the careful experiments of chemistry.

THE SCIENTIFIC TESTS.

It seems impossible that there can be any fault in the Atlantic cable when the Great Eastern goes to sea. To say nothing of the tests applied to it at the manufactory, it is tested not alone after it has been taken on board, but during its delivery into the ship. As soon as a length is brought alongside, one end is connected with the coils already on board, and the other end with the instruments in the testing room. The circuit is thus made through the whole extent of the coil, the portion on board and the portion alongside. The process of hauling in then commences, and the insulation is continuously observed. The instruments in the testing room record the smallest deviation from absolutely perfect insulation. It will be understood that an insulation which shall be quite perfect, as an electrician understands the word, is not attainable. A piece of metal separated by means of the purest glass, and enclosed in the driest atmosphere that can be obtained, will, if charged with electricity, lose that electricity after a time. In speaking of

insulation we must therefore be understood to mean an approximate condition; but the approximation in the case of the new Atlantic cable comes so near to perfection that this rough tarry rope is a scientific wonder.

The last dying pulsation of the old Atlantic cable was forced through it by means of a galvanic battery consisting of two hundred and forty cells. The submarine telegraph from London to Amsterdam is habitually worked with a battery of fifty cells, and such a battery is commonly used for the other submarine lines of Europe. Signals have been repeatedly sent through more than thirteen hundred miles of the cable now on board the Great Eastern by means of one cell. Galvanic currents so feeble that they could not have been felt by the hand, and might have been passed harmlessly through a circuit completed by the operator's tongue, can be used to convey messages along a length of cable that would very nearly stretch from London to St. Petersburg. Over needle instruments, such as those in ordinary use for land telegraphy, a current from one cell would be powerless.

To record such faint pulsations of electricity it is necessary to use Professor Thompson's mirror galvanometer. This beautiful instrument consists of a mirror about the size of a fourpenny piece, made of microscopic glass, and so thin that it weighs only a grain. On the back of this mirror a minute magnet is fixed, and thus supplemented it is suspended by a silken fibre in the heart of a coil of wire, so that any current passing through the coil deflects the magnet and the mirror along with it. A ray of light reflected by the mirror falls on a scale, distant about eighteen or twenty inches, and reveals its faintest movements. Different combinations of these movements represent the different letters of the alphabet, and thus the apparently erratic wanderings of a ray of light are made to convey intelligence. An instrument of this kind is constantly used to test the cable, as it is hauled on board; and if any fault had existed it could not have passed without detection. Up to this time, when there are on board the ship and alongside 1,970 miles of cable, no fault has been discovered.

THE IMMERSION.

The machinery for paying out is not yet on board, but it is being put together at the Greenwich works. The process of immersion will take about a fortnight. The beginning of the shore end will be laid by a small vessel, which will meet the Great Eastern about twenty miles from the Irish coast. The cable will then be passed on board, connected with that in the great tanks, and the big ship will begin her voyage. To the uninitiated this process of cutting and joining the cable appears very mysterious, but the engineers who are used to the work face it without any hesitation. The joints do not really endanger either the insulation or the strength of the cable, as wherever they are made the external and conducting wires are spliced along a considerable length—sometimes not less than thirty yards—and the gutta-percha carefully put on in separate layers, firmly pressed together by means of warm irons. The completeness of the joint is tested by laying it in an insulated metallic vessel containing water, and ascertaining, by means of tests applied to this vessel, whether any electricity escapes from the joint as a current is passed along the cable.

FACTS AND FANCIES.

—A white deer was lately taken alive near the town of Franklin, Delaware County, N. Y. The deer is as white as snow, all except his ears and a spot on the top of his head, and a slight tinge of gray on each side of the shoulder.

—"Papa, why do they plant guns—do they grow and have leaves?" "No, my son; but like plants they shoot, and then others do the leaving."

—There are four hundred thousand feathers on the wing of a moth. If you don't believe it, count them.

—Mr. Dubois is so skeptical that he won't believe even the report of a cannon.

—A sad misnomer: Calling a certain nether garment between four and five feet in diameter, "a petty-coat."

—After the bad success of "L'Africaine" in Paris, that opera, whose hero is Vasco de Gama, is called by the Parisians "Fiasco di Gama."

—Joachim, probably the first violinist of the day, has just been performing in Paris, where he made a sensation.

—A smatterer in everything is generally good for nothing.