

more unsatisfactory because the surgeons who compete for these fellowships do not dare compete for surgical fellowships. Upon the whole, they are not learned enough to depend entirely upon their surgical knowledge. They are neither entirely surgeons nor completely anatomists.

Preparations are being made for the celebration of M. Chevreul's centenary on the 31st of the present month. The National agricultural society is to present him with a gold medal (he has been a member for fifty years), and on the 1st of September there will be a festival tendered him by different persons in the natural history museum. It is not exactly known what will be done, but at all events there will be an exhibition recalling all M. Chevreul's works concerning coloring-matters, dyeing, *corps gras*, candles, glycerine, dynamite, porcelain, and colors. This exhibition is a very good idea, and will meet with great success; for, among the public at large, the notions concerning Chevreul's works are exceedingly vague and uncertain. People all know he is very old, but they do not know how useful he has been, and what service he has rendered to science and industry. In the evening a large dinner will be given, when the ministers of public instruction and of trade will assist, as well as delegates of the faculties and learned bodies, and also delegates representing the branches of industry that have been improved by Chevreul's work. In my next letter I shall have to resume the subject. Many professors and scientists are remaining in Paris to assist at the ceremonial, such as Pasteur, Frémy, Milne-Edwards, Bertrand, Jansen, de Quatrefages, etc.

Yesterday there started for the United States quite a number of travellers of an interesting nature, — a number of splendid horses bought at the last trotting match at Nogent sur Marne by Americans from Illinois, Kansas, Minnesota, Michigan, Wisconsin, etc., for the purpose of keeping up the Percheron breed in America. Your countrymen, such as Messrs. Dunham, Degan, Bowles, and many others, come every year at this time to visit the Perche, and buy the best horses they can find. The medium price is two thousand dollars (ten thousand francs). The first horse so exported crossed the Atlantic in 1839, with Edward Harris of New Jersey. The horses of that breed are very much appreciated still. In 1851, M. Fullington took across the ocean another horse of the same breed; he called it Louis Napoleon, but his friends preferred naming it Fullington's folly. The folly was profitable, however, and the sons of Louis Napoleon are as much valued as those of Philippe Egalité, as Harris's acquisition of 1839 was called. The Percheron stud book is very well kept, only horses born from Percherons in

Perche can be recorded. M. M. Dunham, who was here a few days ago, offers each of his stallions some fifty amiable wives, and as each year he buys some three hundred Percherons, one may judge of the importance of his Illinois stud. This year some twelve hundred stallions are leaving France for the States.

The vacations have now begun: most of the professors are out of town. M. Faye was some days ago on the seashore at Villers; Professor Vulpian is in his usual summer resort of Trouville; others are scattered here and there, in mountain or country, or travelling abroad. A great many are in Nancy, for the meeting of the Association for the advancement of science; some are in Germany or elsewhere, awaiting different scientific meetings. It is a happy time for them, and they enjoy a well-deserved rest after a long year's work. V.

Paris, Aug. 11.

NOTES AND NEWS.

THE report of the wide-spread earthquake comes as we go to press. It is probable, that, on account of the extent of country over which the shock was felt, it may be possible to arrive at valuable estimates of the rate of propagation of earth-waves. From Washington we learn that Professor Simon Newcomb furnishes the following figures regarding the earthquake: First shock occurred at 9:53:20; second shock about 9:54:30; lasted until 9:59. Major Powell is quoted as saying that there is a line of weakness in the crust of the earth beginning somewhere south of Raleigh, N.C., and extending in a line along the tidewater, past Richmond, Washington, Baltimore, and Troy, N.Y.; that this line of weakness is marked by a displacement; in some places this displacement being a flexure in the rocks, in other places a fault; and in the neighborhood of this displacement are found the principal waterfalls which constitute the water-power of the Atlantic slope. "It will be interesting," he adds, "to discover the relations of the point of origin of this earthquake to this line of displacement or weakness." The officials of the signal-service bureau report that four distinct shocks were felt there. The first began at 9:54, and lasted 40 seconds; the second shock was felt at 10:04, and was followed by another at 10:10, and by another at 10:30.

— The topographical work of the geological survey is progressing in a most satisfactory manner, and the following summary is given of the results attained up to the first of August. Mr. Natter's party in Massachusetts have finished the Framing-

ham sheet and a large portion of the work north of that place, covering, in all, eighty-five square miles; Mr. Johnson's forces in the western mountainous part of the state have completed forty-nine square miles; Mr. Bodfish's division have finished altogether two hundred and twelve square miles in Massachusetts, one-half of which was partly done last year; of the region around the District of Columbia, thirty-five square miles have been completed; Mr. Griswold has a very large party at work in northern Virginia, who have completed seven hundred square miles; the central division, under Mr. Renshaw, is getting under way; Mr. Davis is at work in central Arizona, and has completed eight hundred square miles; Mr. Wilson is at work in the gold region around Ore-ville, in the gold belt, with two topographical parties and one triangulation party; the topographical work covers three hundred and seventy-seven square miles, but both parties were retarded somewhat by bad weather. Up to Aug. 27, 53 sheets of the general topographical atlas of the United States have been published; there are 48 sheets in proof.

—The coast-survey parties are now in the field busily engaged in pushing the work forward. Two topographic parties and one hydrographic party are already at work on the resurvey of San Francisco Bay. Owing to the very limited appropriation for the Alaska work (only \$4,000 being appropriated in lieu of \$9,000 asked for), the steamers especially employed for this work at an expense of several hundred thousand dollars are to be immediately called from the field, there being no money to carry forward the necessary work for which an admirable plant had been provided. Professor Davidson has returned from Portland, Ore., where he was engaged in astronomic and magnetic work, to San Francisco, and has resumed his duties in charge of several parties on the Pacific coast. The parties on the transcontinental arc are all at work except Assistant Eimbeck, who would be in the field were it not for the lateness of the season, which is inopportune for locating stations on the summit of the Rocky Mountains. The telegraphic longitude parties are at Salt Lake and Ogden. Sub-assistant Marr is ordered from the magnetic observatory at Los Angeles to report for duty in telegraphic longitude work at Salt Lake. The physical hydrography of Delaware bay and river has been completed as far as this year's appropriation will carry it, and Assistant Merinden is about to transfer his party to New York bay and harbor, where the work of last summer will be continued. If progress is as rapid as it has been heretofore, the resurvey of Long Island Sound will be completed

the present season. Assistant Weir will take up the topographical work in the vicinity of Chatham, Mass., in connection with Professor Mitchell's physical survey of Monomoy Shoals. Mr. F. M. Thorn, superintendent of the coast survey, who left Washington for Orchard park near Buffalo, N. Y., has returned to his official duties.

LETTERS TO THE EDITOR.

*Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

'Thumb-marks.'

THE letter on 'thumb-marks' in No. 185 of *Science* recalls to mind an extract cut from a newspaper in March, 1883, headed 'Thumb portraits.' The matter was taken from the 'World of wonders.' In it reference is made to the spiral grooves on the skin of the thumb, with the remark that the figure on each thumb remains the same during life, but the marks are different on each. It then goes on to state, "The Chinese take advantage of all this to identify their important criminals, at least in some parts of the empire. We photograph their faces; they take impressions from their thumbs. These are stored away, and if the delinquents should ever again fall into the hands of the police, another impression at once affords the means of comparison. The Chinese say that, considering the alteration made in the countenance by hair and beard, and the power many men have of distorting or altering the actual features, etc., their method affords even more certain and easy means of identification than our plan of taking the criminal's portrait."

A year or more ago a gentleman of Cincinnati proposed to take advantage of this fact, and apply the thumb-mark to railroad tickets, to prevent their falling into the hands of scalpers. He brought it to the attention of several railroad managers, who thought favorably of it; but meeting with considerable difficulty in making arrangements to get the mark without too great inconvenience to the purchaser, and likewise, I believe, discovering that the process could not be patented, it was given up. At least, I have not heard any thing of it lately.

JOSEPH F. JAMES.

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Revivification.

It is well known by all zoölogists that many animals, such as tardigrades, rotifers, anguillulae, and others, are subject to revivification, as Needham, Spallanzani, Doyère, and others have shown. Could some reader of *Science* tell me whether experiments of a similar nature have been performed in America on these same animals, and let me know the name of the experimenters, as well as the title, date, and place of publication of their papers? I would be also much obliged if any one could tell me whether the experiments have been performed on other animals, of superior organization. Lastly, can some one give me information concerning Hindoo fakirs, who, it is said, can fall into a state of trance, and remain seemingly dead, and in fact buried for a long time,