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AN EPIDEMIC OF GOLD DISCOVERY.

Reports of gold discoveries in Maine or beyond the Rocky Mountains are matters of everyday occurrence and surprise no one. There seems to have been of late, however, a remarkable outbreak of such reports from other parts of the country.

To begin at home, there is the report from Albany, April 29, that Albert Stolpp, of Brooklyn, has filed official notice with the Secretary of State that he has discovered a well-defined vein of gold and silver in the town of Cornwall, Orange County, N. Y.

A dispatch from Milwaukee, Wis., April 23, says: "Much excitement prevails at Ashland over the reported discoveries of gold and silver, in paying quantities, at Brunschwiller and Silver Creek, fourteen miles south of Ashland."

From the Baltimore Gazette, of April 22, we learn that persons residing in the vicinity of Catonsville, Baltimore County, have indulged in a good deal of speculation the past few days in regard to the value of a gold deposit discovered by Mr. F. Marion Hay upon a tract of land owned by him and situated eight miles from Baltimore, on the old Frederick road, in close proximity to "Glenwild," the country seat of Mr. George Appold. Immediately after purchasing the property, about one year ago, Mr. Hay sank an artesian well to the depth of 150 feet, and being satisfied that valuable mineral existed, began to sink a shaft six feet in width, but was compelled to suspend operations during the winter. The shaft has now been completed, and the quartz containing the gold was reported yesterday by those engaged in the work as having been assayed at \$30 per ton. Mr. Hay is sanguine that the precious metal will be found in paying quantities, and operations thus far seem to verify his prediction. The work progresses night and day, two sets of men being employed.

A dispatch from Atlanta, Georgia, dated April 13, says that considerable excitement prevails in White County over the find of rich pockets of gold in Nacoochee Valley. Over a hundred nuggets were taken out in four days, one of which, shown in Atlanta, weighs over a pound and an ounce. The yield grows richer as the washing proceeds.

Another report from the same place, dated April 24, says that the gold fever is spreading, especially in White County. Lumsden Bros., at Nacoochee, have taken out 2,700 pennyweights in nuggets from 80 square feet of earth at a total expense of \$65. From a pocket 30 inches square they gathered 212 pennyweights in small nuggets. Another party that struck the same lead took out, before they began to clean up, a nugget that weighed 106 pennyweights, and several others not quite so heavy.

Favorable reports are also made from the lately reopened gold mines of North Carolina.

All these may be genuine "finds," to be followed by profitable developments; nevertheless it will not do to base extravagant hopes upon them. Too often, as Prof. Stewart remarks in a recent report on certain Maine mines, such discoveries are made "by new-fledged prospectors, who are utterly ignorant of the elementary principles of geology and mineralogy. They hastily squat on a protruding trap dike, and develop 'the find' by excavating a shallow potato pit, and imagine themselves bonanza kings if they encounter a stringer of mundic or fragment of copper pyrites. 'It takes a mint to work a mine.' Skill, capital, and experience are needed to run a mine successfully; and any attempt to manage the business without these will end disastrously."

Where the Islands and Sand Bars in the Mississippi River Come From.

From a series of daily observations extending from the early part of February to the latter part of October, 1879, taken at St. Charles, Mo., under the direction of officers of the United States Engineer Corps, it has been ascertained that the average quantity of earthy matter carried in suspension past that point by the Missouri River, between one foot of the bottom and the surface, amounts to 14,858 lb. per second, or 1,283,731,200 lb. each twenty-four hours. The matter thus carried along weighs, approximately, 100 lb. per cubic foot when dry, giving an average of 12,837,312 cubic feet of earth transported each twenty-four hours during the entire year, enough to cover one square mile with a depth of nearly six inches.

During the months of June and July the average quantity per twenty-four hours amounted to 47,396,448 cubic feet, enough to cover a square mile with a depth of one foot and eight inches. The maximum quantity observed for any twenty-four hours was on July 3, when it reached the enormous amount of 111,087,200 cubic feet, sufficient to cover a square mile to a depth of four feet. These figures do not take into account the material that is held in suspension within the lowest foot of the depth, or that which is being rolled along the bottom. If these quantities could be ascertained within any reasonable limit of approximation to correctness, there is no doubt but they would show an amount far in excess of that which has already been determined.—Missouri Republican.

ANOTHER LOST FIELD GLASS.

The articles which appeared in this paper some months ago relative to Prof. Barker's paper before the American Science Association on a curious case of crystallization in Canada balsam, have called out a note from Prof. Liversidge, of the University of Sydney, New South Wales, inclosing a printed paper on the same phenomenon read by

him before the Royal Society of New South Wales, December 1, 1875. The paper is illustrated by two fine engravings from photographs, representing "some peculiar and interesting examples of fracture." Prof. Liversidge said: "They were met with upon the lenses of a field-glass, or, to speak more precisely, between the surfaces of the achromatic combinations of the two object glasses of a field-glass, which had been lost upon the Liverpool Plains, and there left exposed to the sun and weather for a period of five or six years. The long-continued exposure to alternate heat and cold had evidently caused the Canada balsam, or other material used for cementing the crown and flint glass portions of the lenses together, to contract and crack along certain lines; the contraction and consequent fractures being due to the loss of turpentine from the balsam by gradual volatilization."

Our readers will remember that Prof. Barker's supposed crystallization of gum took place between the lenses of a field glass which had been lost in the Yellowstone country and there exposed to the weather for a number of months. The true explanation of the crystalline appearance was given by Mr. Hopkins in the SCIENTIFIC AMERICAN of Jan. 31, 1880.

Arctic Relief.

Captain Hooper, commanding the revenue steamer Corwin, has been ordered to leave San Francisco, Cal., May 22, for the relief of ice-bound whalers and to search for the Arctic exploring vessel Jeannette. He will proceed direct to Ounaslaska, where he will take in a fresh supply of coal; then go on to Norton's Sound, touching at the seal islands by the way. He is to push through Behring Straits into the Arctic Ocean as soon as those waters are open, and assist such whalers as may need help, making meantime, as his letter of instruction reads, careful inquiries regarding the progress and whereabouts of the steamer Jeannette, engaged in making explorations under the command of Lieutenant Commander De Long, United States Navy, and, if practicable, communicate with and extend any needed assistance to that vessel.

A FAST RIVER STEAMER.

During her trial trip, May 12, the new iron hull steamboat Albany, for the Hudson River day line to Albany, ran a distance of 16 miles in 37½ minutes, a speed of nearly 26 miles an hour. The state of the tide was not reported. Her owners expect that she will easily run 24 miles an hour.

The Albany is the largest steamer built thus far for the day service, and will have ample accommodation for 2,000 passengers. The dimensions of the hull are 296 feet in length, 40 feet beam (73½ feet over all), and 11½ feet depth of hold. The engines were made by Fletcher, Harrison & Co., and are of the vertical beam condensing pattern, with a 73 inch cylinder, a 12 foot stroke, and capable of running up to 3,000 horse power. There are three boilers, 38 feet long each, and 8 feet 10 inches in diameter of shell. The joiner work is being done by Mr. John E. Hoffmeyer. Every recent improvement looking toward increased safety has been provided. The hull, which is of iron, was built by the Harlan and Hollingworth Company, of Wilmington, Del. The engine frame is also of iron, and very compact.

There are three decks, the main, saloon, and upper decks. The main and saloon decks will be for the use of passengers, and the upper deck for the officers. The dining room is on the main deck instead of in the hold, as is usual. The saloon will be elaborately frescoed and upholstered. The forward and after parts are left open on the sides. The after portion is covered by the upper deck. The forward part is entirely open. She will be ready for service about the middle of June.

IMPROVEMENTS AT COHOES.

The importance of Cohoes, N. Y., as a manufacturing city largely depends, as our readers are doubtless aware, upon the magnificent water power furnished by the falls of the Mohawk River at that point, as improved by the Cohoes Water Power Company. This company owns the entire power of the river from half a mile above the falls to a mile below, the total fall in that distance being 120 feet. The water is used in five successive canals, having falls of 18 to 25 feet, and again from the level of the State dam built below the falls to supply the Erie Canal at this point.

From the Northern Budget we learn that the Cohoes Company have just begun an important extension of their works. The first part includes the cutting of a channel through solid rock from Van Rensselaer street, up Ontario street, to intersect the canal at Lansing's Mill, a distance of 600 feet, the width of the cut being 35 feet, and the depth 20 feet. From the corner of Ontario street a similar canal, 800 feet long, 30 feet wide, and 20 feet deep through solid rock, is to be cut beside the railway track, to connect with the canal at the Cohoes foundry. Both these cuttings are to be securely arched. The rock removed will be used for filling in land in rear of Root's Mill. The water to feed this canal is now running to waste from the Lansing Mill. The land along the canal will furnish 2,000 feet of mill frontage. The further improvements in contemplation involve an extension of the Rensselaer street canal a distance 1,500 feet. Two lines of canal will be constructed the entire distance, making available a fall of 40 feet. These improvements will give, the Budget remarks, a water power second to none in the world, and will in time no doubt convert the city of spindles into the largest cotton manufacturing center on this continent.