

THE NEW GOLD DISCOVERIES IN THE LAKE SUPERIOR REGION.

We clip the following from the *Saginaw Enterprise*: "We received a call yesterday from Mr. W. A. Northrup, a prominent business man and resident of Houghton, Lake Superior, but who has been spending the winter in prospecting in the famous silver and gold districts of Canada surrounding Thunder Bay on the North Shore of Lake Superior. Mr. Northrup reports the prospects in highly favorable terms. The great Silver Islet mine is as rich as ever, and has produced a large amount of silver ore during the winter which will be shipped to the Wyandotte Smelting and Refining Works by the first boats in the spring. Another mine, the Elumiah, which has been producing moderately during the past season, struck a vein a few days before Mr. Northrup's departure. There is great excitement now over the discoveries of gold made late last fall, and upon the opening of navigation the rush to this new Eldorado cannot but be immense. The gold field lies from seventy to one hundred miles back from the head of Thunder Bay, in a most desolate rocky region, which nothing but gold would tempt men to stay in for a single day. The gold occurs in a pure state and associated with sulphuret of iron, the latter being predominant. But little actual mining has been done in the gold mines this winter, owing to the snow, etc. One party of twelve men, have got out ten and a half tons of ore which repeated assays prove to contain from \$5,000 to \$7,000 worth of gold per ton. The latest discovery is a seeming abundance of tin ore, much richer than any obtained in the celebrated mines of Cornwall, England yielding from forty to sixty per cent. of metal."

HARVEY'S SEA TORPEDOES IN ITALY.

We have already from time to time traced the progress of Commander Harvey's torpedo abroad with very keen interest. We have now to record the details of experimental practice carried out at the request of the Italian Government at Spezia. The ram *Videtta*, a screw vessel of 135 feet in length and 827 tons burden, and having a speed of from eight to ten knots, Commander Giuseppe Palumbo, was assigned to this duty, having on board the Commander-in-Chief of the port, Admiral Isola, Admiral di Menri, Director-General of the Arsenal, and the commission appointed by the Government—namely, Captain of frigate *Enrico Morino*, President, Lieutenant Alfonso di Vascelli, Lieutenant S. E. Guglielminetto, and Lieutenant Lugotemento di Vascello; and a number of the officers belonging to the ships in port. The large brake was screwed into the ram's deck on the port side of the quarters deck, and the small brake on the starboard side of the poop; the safety key for the large torpedo on the port side of the poop. The wire rope used in towing the torpedoes was made by Messrs. Weatherley, and the torpedoes and gear by Messrs. Vavasseur and Company, London Ordnance Works. The first attack was made on a boat astern of the old line-of-battle ship *Re Galantuono*, by coming up from astern, with large port torpedo charged with water. Torpedo dipped under boat and struck her bottom, slewing her round and knocking the torpedo levers close home. The ram was steered by Commander Palumbo, the brake being attended by Commander Harvey. The torpedo was hauled on board, when the capsule was found to be pierced, showing that explosion

would have occurred had it been loaded. The safety key was worked on this occasion by the reel on the poop, and was not drawn until ordered. The second attack was made with the same torpedo by coming up from astern, on the *Città di Napoli*. The torpedo acted under the counter, the capsule being pierced. Speed of ram about eight knots in the above attack. Both torpedoes were then towed free, showing full four points divergency from either quarter.

The method of exploding was next explained in the cabin, which was closely packed by the officers present, and who certainly viewed with some astonishment the skill with which the inventor filled the exploding bolt, and having adjusted the key, threw it boldly about on the floor, to show its capability of withstanding rough usage; it was afterwards taken on deck and exploded. Several of the loading cartridges were also fired to demonstrate their certainty of action, and various violent powders suited for charging the torpedoes—Horsley's powder lithofracteur etc.—were then shown to the commission. Other torpedo experiments were made—the admiral-president of the committee expressing himself most favorably impressed with the results of the official trials; and this appreciation will be the more clearly valued when we remind our readers that in Italy the authorities had very definite knowledge of Whitehead's fish-torpedo before the English Government made so extravagant a bid for its seemingly not very practical secret. It may be mentioned in proof of the reliability of every portion of Commander Harvey's torpedo, that in one of the experiments on this occasion the large torpedo was let fall from the top of the bulwark to the deck with such force that both side levers were bent double, the safety-key, nevertheless, held its own in the exploding bolt without moving, showing that had the torpedo been charged no explosion would have happened from the accident. The levers were quickly replaced by new ones, and the torpedo was ready again for action without being in any way disabled by its rough treatment. The torpedoes were worked generally with about fifty fathoms of line out, and about six fathoms of buoy rope. On a subsequent occasion it was desired to see what a very small tug-boat, the *San Pietro*, could do with these weapons; she being but 50 horsepower, with very low speed, could only tow the small torpedo, and this having been dipped, she could but very slowly bring it up to the surface again. A drawing of a suitable vessel, designed under Commander Harvey's instruction, was shown to the authorities, and was undoubtedly well appreciated by the Constructive Department. Every attention and assistance was given to Commander Harvey by the Italian officers, who manifested a strong desire to become thoroughly acquainted with the weapon and to acquire skill in its practice.—*London Standard*.

A PHENOMENON IN THE OIL REGIONS.

The *Titusville Courier* of the 27 ult. gives the following interesting particulars of the Newton well, on the Nelson farm, six miles north of that city. "It has been down about 20 days, and has continuously poured forth such a volume of gas that it was found impossible to pump it, as the valves would not work. The tubing was pulled on Wednesday and the well was cased in order to let the gas blow off so that it might be pumped. After the casing was put in the sand pump was put in for the purpose of

agitating the well, and the gas raised a column of water, throwing a solid stream into the air, 1,000 feet. The noise was terrific, and could be heard a distance of more than two miles. The noise was something like the loud roar of thunder, and when the column burst at the top, it threw water onch way for 15 rods from the well. The water was exhausted in about twenty five minutes and then a column of gas followed, rising with tremendous force 50 feet above the derrick. The out pouring of the gas makes a roaring noise and can be distinctly heard for two miles from the well. The noise around sounds like the rushing of a mighty whirlwind. The column can be seen a mile from the well. No tools can be put in the well. As soon as the attempt is made, with such force does the gas come out that the tools are carried into the air. From description of eye witnesses this is probably the greatest gas well ever struck in the oil region. Up to last evening the gas showed no signs of being exhausted. The people in that vicinity are very much alarmed, and the cattle run about the fields perfectly wild with fright.

BRITISH COMMERCE.

British commerce, in 1870, reached in value, within a fraction, the enormous sum of a thousand millions of dollars, and the export of foreign and colonial produce to about two hundred and twenty-five millions. The exports have been nearly quadrupled in the course of thirty years, or since 1840. In 1870 the United States stood first among nations to which Great Britain exports her products. The exports amounted in that year, British, Irish, colonial and foreign included, to over a hundred and fifty five millions, of which more than a hundred and forty millions were British and Irish. The country that stands next is Germany, to which a hundred and forty millions were exported. Then follows France, received over a hundred and ten millions; British India, a hundred millions; Netherlands over eighty millions; Australia, over ten millions; The British North American Possessions, between thirty-five and forty millions; China, over thirty millions; Belgium approaching forty five millions Italy exceeding thirty millions, and Brazil over twenty six millions. While British commerce increases with a sure and rapid tread, that of the United States decreases. Why is this? Our system must be radically wrong, and it is the business of statesmen to discover the mistake and correct it. We cannot afford to hug pet theories to our bosoms, and allow American ships to become objects of curiosity in foreign ports.

PROTECTION OF THE FISHERIES.—The British Naval Squadron detailed for the protection of the Canadian Fisheries this season, in the Gulf of St. Lawrence, consists of H.M.G.B. *Cherub*; H.M.S. *Niobe*; and H.M.S. *Eclipse*; which vessels will be re-inforced by H.M.S. *Lapwing*. Vice-Admiral Fanshawe is again in command. The fleet of Dominion cruisers commissioned for the same service consists of the following armed schooners;—*La Canadienne*, commanded by N. Lovoie S.G. Marshall, commanded by J. A. Nickerson New England, commanded by W. T. Forst; I. N. Duncomb, commanded by J. A. Tory Peter Mitchell, commanded by D. M. Browne R. N.; *Katie*, commanded by George Marston; *Stella Maris*, commanded by L. H. Lachance. They are already cruising on their respective stations; but two captures have as yet been made.