

ore is a hard, but somewhat porous or spongy, red hematite, with a specific gravity of about 5. The ore body, from which a layer of muck or peaty moss has been removed, forms a point dividing the head of the lake into two small bays. It has a lumpy surface, with a dark bluish-grey color. Small quantities of brown hematite (limonite) and yellow ocher appear in joints and cavities, but they do not form any appreciable portion of the mass.

"The horizontal dimensions of the exposed ore are about 500 feet in every direction, and its greatest height above the lake is 100 feet. The ground rises steeply all around the head of the lake, so that the ore lies at the bottom of an amphitheater, open on the west, or lake side. A drift has been run at the level of the general surface of the ore, southward into the hill, and this penetrates similar hematite for 250 feet, thus giving a known breadth of 750 feet from north to south. During the winter of 1899-1900, by taking advantage of ice on the lake, a number of holes were bored in the bottom along a north and south line, which passed the extremity of the point of ore at a distance of 250 feet to the westward. On this line and abreast of the point the lake had a depth

of 100 feet, including ten feet of soft mud, and at 150 feet below the bottom, where the boring ceased, the drill was still in hematite, like that on the dry land. A bore-hole from the surface of the exposed ore was sunk to a depth of 188 feet below the level of the lake, without reaching the bottom of the hematite. The ore-mass has thus been proven to have a continuous depth of 300 feet, and as this follows the plane of the bedding, which is vertical, the probability is that the depth is very much greater. The general strike is parallel to the axis of the pond, which is about east and west. The railway approaches the mine from the west along the foot of the hill on the south side of the lake."

It has been figured by experts that at a shipment of 3,000,000 tons a year it would require a decade to exhaust the ore above ground at the Helen mine. Mining men from Minnesota are taking a great interest in the new territory. They are of the opinion that the deposits there are equal to those of Minnesota.

At Michipicoten harbor, vessels are loaded with ore at the rate of 1,000 tons per hour. Each ore pocket has a capacity of fifty tons. In all there are 500 feet of chutes, and more building. - *Scientific Am.*

SCIENCE.

By J. B. Turner, B.A.

SCIENCE TEXT BOOKS.

The question as to whether we should use text books in the teaching of science is one that has caused a great deal of discussion among

those who have given attention to the matter. For the present, it seems to be generally admitted that some text book must be available for the use of our students,