The ventilation of the mine is secured by natural means. In winter the air passes down by way of two shafts in the bottom of the old mine, and up and out through the third shaft on the hill-top. In summer the currents are reversed, the air passing down the higher shaft, which contains a larger column of cool and consequently heavier air that sinks down in its effort to establish equilibrium. This sinking down drives the air up the other shafts in endeavoring to establish equality of pressure; but as fast as the air in the shorter column rises to the surface, it is heated by the sun and warmer surrounding atmosphere, and expands and rises.

This expansion diminishes the pressure on the base of the shorter column of air, and the larger column of the north shaft, in its effort to supply this deficiency, produces the upward currents in the short shaft, which continues until the atmospheric conditions are reversed, and the temperature of the air below the surface is higher than the temperature of the air outside, when the high shaft again has the upward current.

The hoisting is done by drum and wire rope, actuated by an engine at the top of the old pit and about sixty yards from the dumping tower. From the latter an inclined tramway on the dip of the bed (66°) leads to the bottom of the middle shaft. The ore is brought from the different "platt"s and "rooms" on small boiler-iron cars, running upon rails laid along the foot-wall adits and lateral galleries to the foot of the shaft, where it is loaded into "skips" attached to the wire rope. The "skips" are of boiler-iron, about six feet long, and will hold four (small!) men. The skips on arriving at the surface are, by an ingenious automatic arrangement, dumped into regular platform cars. These cars are weighed when empty, filled as above stated, then weighed again, the ore sorted by hand and then broken up for the furnace, and all rock and waste removed. The cars are again weighed with the clean ore; the difference in weight gives the loss in sorting and picking over. The hoisting drum runs loose upon a sleeve in lowering the empty skip, but on hoisting it is firmly locked to the sleeve by a friction clutch much after the model of the extension arms of an umbrella.

The hoisting is done by pneumatic signals; a piston worked at the top operates another piston (by an air pulse), which is attached to the hammer of a gong at the desired level. The mines are at present lighted by ordinary miners' hat lamps, but electric lights are about to be introduced.

The party was composed of Prof. Richards and Messrs. Park, Knapp, Doane, Haines, Sturgis, Lyle, Neuman, Bunce.

The Bridge.

A NEW STORY WITH A MORAL.

I stood on the bridge one morning,
Close by the Brooklyn tower,
And cast my eyes o'er the cities,
'T was about the shopping hour.
Far down below were the waters
Where excursion steamers lay,
And ferry-boats making commotion
Whistling for right of way;
Then battling the eddying currents,
A little yacht sailed by,
And one of her wicked sailors
Had a spy-glass to his eye,
And as the boat lay tossing
Upon a steamer's swell,
He looked at girls on the ferry-boats,
And criticised them well.
How often, oh how often,
In the days that had gone by,
H-lad he stood within that cockpit,
With the spy-glass to his eye.
How often, ah how often,
Fair maidens thus he'd eyed,
Making them turn their faces,
And look to the other side.
And now the boat came restless,
And wobbled to and fro,
And the swinging boom above him
Hit his head a fearful blow.
He's now on the floor of the cockpit,
With the spy-glass to his eye.
And no thought of sorrow or sadness
Casts a shadow over me;
For I thought how many hundreds
Of care-encumbered men,
Laughed as they saw him then.