they mix one thousand feet of the water-gas, and then subject the mixture to the old modes of purification.

This gives a gas which, so far as I can learn, is no cheaper to the consumer, but which is produced with much less trouble to the manufacturer. This Company sells gas for $1.80 per thousand feet. The plant itself, compared with the old furnace, is quite simple, and in it the process is realized in a very short time. A tall tower, lined with fire-brick, is first heated to redness. During this heating the fumes of combustion pass out at the open top. When the right temperature is reached, the opening at the top is closed, steam is blown through the hot coals of the furnace and into the base of the tower, where it meets a spray of petroleum, which, volatilizing at the high temperature, adds its enriching qualities (now in the form of permanent gases); and as a result, carburetted water-gas passes out at the top of the tower, and is conducted into a second tower to undergo a process known as scrubbing.

The heating of the tower and the manufacture of the gas alternate at intervals of twenty minutes. In case of an accident to the gas-reservoirs, a set of these towers could supply an immediate demand, and thus obviate the necessity of reverting to the primeval candle. This would be almost an impossibility with the old process. Mr. Hinman, State Inspector of gas, who was one of the party, succeeded in making our visit here very interesting.

After a short but muddy interval, we knocked at the door of W. C. Cutter & Co., Copperas Works. We soon gained admittance, and were conducted at once into the crystallizing room. This Company makes use of the pickling liquor, already rich in iron, and the waste iron wire, of a neighboring factory.

The process consists simply of dissolving the iron in the acid liquor to saturation by the assistance of steam, and afterward allowing the liquid to cool in large shallow tanks. During the cooling the clear green crystals settle out and collect on the sides, bottom, and on immersed sticks, until finally the tub has assumed the appearance of a broken geode of wonderful beauty and proportions. The mother liquid is then drawn off and returned to the wire for further saturation, and the crystals are shoveled out and dried. During the drying and packing the crystals oxydize and get broken up, so that when they get in the market they have lost the clean bright appearance which they possess in the crystallizing vats.

The crystals on the bottom of the vat contain all the impurities and settlings of the mother liquid, and so are unfit for the market, but are used in a neighboring plant owned by the same company for the manufacture of venetian red. To accomplish this, the copperas is mixed with lime roasted in a muffer furnace, then mixed with pulverized gypsum, and the whole ground to an impalpable powder. The result is a red powder containing about twenty per cent of iron oxide, and to which it owes its virtue as a coloring matter. It is put on the market for about a cent and one-half per pound. While the machine is in operation a fine red dust fills the air, which settles out on everything within reach, and the men look more like the early red warriors than civilized knights of labor.

For some years past many experiments have been made, and much time and money expended, for the purpose of finding a practicable means of using the products of our great oil regions for purposes to which fuel, heretofore only in a solid state, has been applicable. As a direct result of such experiments we have the development of a process by which wrought-iron can be melted and cast without destroying any of the qualities which class it as such; and this is accomplished in a furnace heated by the combustion of petroleum. The metal is called "Mites Iron," and the process has been patented abroad, where it originated, and in this country. The right of Massachusetts is controlled by Mr. Bowker, who has a small trial plant in operation at Worcester. It was not our good fortune to see the furnace in operation, but then, we had even a better chance to see its construction. It is a long, low structure, not much over two feet high, with a proportionally large chimney at the