

CONDENSED MILK REPRESENTED AT THE FAIR.

The very handsome exhibit of the New York Condensed Milk Company, in Agricultural building, most appropriately bears, in prominent position on its four sides, representations of the distinguished inventor, Gail Borden, the exhibit being crowned by an eagle, the well known trade-mark of the company. The first patent for condensing milk was granted to Gail Borden in 1856, and in the same year were established the first works for carrying on the business. The demand for the product for the use of the soldiers during the war of the rebellion caused the rapid enlargement of the business at a very early day, but its great merit became then so fully recognized that the increase in demand has been continuous, as is evidenced by the extraordinary development of the great company now marketing these productions. The milk is condensed *in vacuo* and sterilized at several great establishments located in the best dairy districts of the country, as in Westchester, Putnam, Dutchess, Orange, Ulster, and Chenango Counties, New York State, and in the best dairy country around Chicago. The company has the most stringent rules governing the dairymen from whom it buys milk, its contracts with the farmers allowing the company to exercise such supervision over the production and care of the milk as to guarantee purity and evenness in quality, the utmost care and cleanliness being considered an absolute essential. In each of its plants the company makes its own boxes and cans in which the product is packed, so that the works in each case constitute extensive industrial establishments. In New York, Brooklyn, Jersey City, Newark, and Chicago, the fluid milk is also supplied by wagons making daily deliveries, the facilities of the company for obtaining the best dairy product, as required for condensing, having invited the organization of this branch of the business. The company's wagons are now delivering milk direct in this way daily to over 60,000 families. The growth of the business, great as it has been, has been due solely to the superior merit of the products.

A Coal Dust Engine.

A novel motive power engine has been invented, based upon the fact that very finely divided carbon, floating in the air, readily explodes, and to adapt this to the generation of motive power the inventor proposes to grind coal to an impalpable powder, and, after introducing the dust floating in the air into the cylinder of an engine, explode it, the idea being to follow very much the same lines which are being so thoroughly developed in the use of gas in engine practice. The first difficulty which suggests itself is how the ash is to be got rid of, but experience in gunnery shows this may not be a serious obstacle.

EXHIBIT OF THE DIXON CRUCIBLE COMPANY AT THE FAIR.

The Joseph Dixon Crucible Company is the only concern in the world which manufactures every article of which graphite is a component part. With the invention by Joseph Dixon in 1827 of the plumbago crucible, the crucible business was revolutionized. At that date began also the manufacture of Dixon's stove polish, foundry facings and the development of an industry now grown to enormous proportions and fittingly represented by the Joseph Dixon Crucible Company, of Jersey City, N. J.

This company has two exhibits at the World's Columbian Exposition. One is of Dixon's American graphite pencils, in the northeast gallery of the Manufactures building, and the other, covering all the other articles manufactured by them, in the northeast gallery of the Mines and Mining building. The pencil exhibit occupies a space 10x14 feet. In the center of this space stands a low mahogany table surmounted by a pyramid of velvet, which is covered with pencils arranged in graceful and beautiful designs by an artist employed specially for that purpose. Over this pyramid stands a rosewood and plate glass case. Two ornamental facades of turned and carved mahogany front the space, which is separated from neighboring spaces by means of Japanese bead curtains, suspended from carved grilles. The space is lighted at night by means of two gilt electroliers of six 16 candle power lights each.

The company's exhibit of general and special graphite products in the Mines and Mining building occupies a space 25x28 feet. A very handsome cherry facade fronts the space, while the sides are hung with tastefully arranged portieres. Crucibles, retorts, ladles, stopper heads and nozzles, graphite boxes, phos-

phorus chargers, resistance rods and devices, incandescent filament forms and other special goods made of graphite, are shown in upright cabinets. In another case is shown the development of an electrotype plate, in which process the use of graphite is an essential. In still another case are shown over fifty varieties of graphite, for as many different uses and under as many different names, such as graphite for lubricating, stove polish, foundry facing for green, dry or



THE WORLD'S COLUMBIAN EXPOSITION—EXHIBIT OF THE NEW YORK CONDENSED MILK COMPANY.

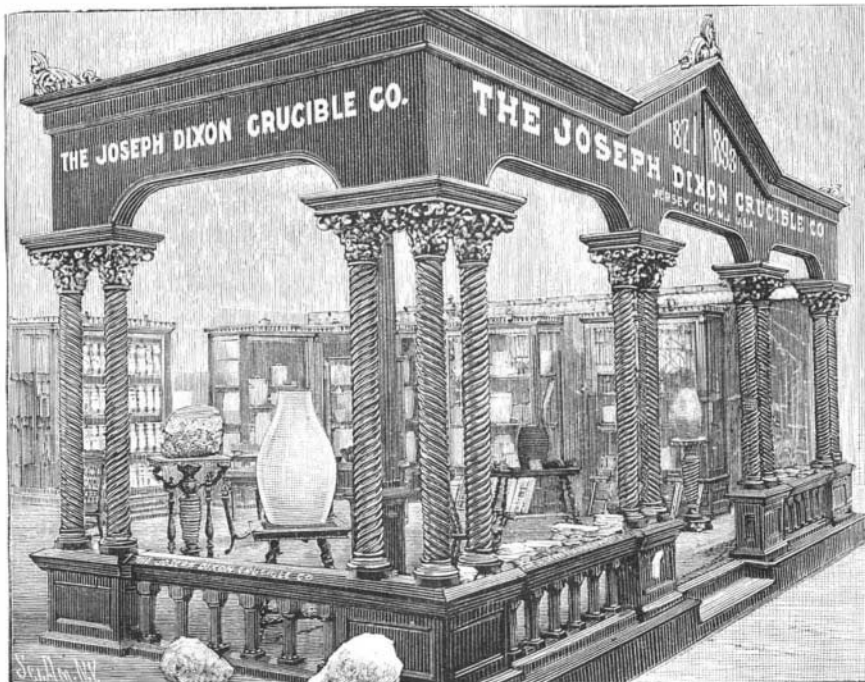
loam castings, core wash, ingot mould wash, shot and powder glazing, electrotypers', gilders' use, hatters' use, rubber packings, piano and organ actions, pot-leading yachts, for crucibles, lead pencils, paint pigment, lubricants, etc.

There are also shown samples of graphite from all the principal sources from which that article is obtained. One very fine sample from the island of Ceylon weighs nearly 300 pounds. There are comfortable chairs, with writing desk and stationery for the free use of those who may desire it.

The Dixon Company were the first to complete the installation of their exhibit at the Fair, and their promptness brought forth a highly commendatory letter from the chief of the department, F. J. V. Skiff.

The Fastest Cruiser Afloat.

The new Japanese war ship Yoshino recently was subjected to steam trials. The mean of four runs on the measured mile gave her a speed of 23.031 knots per hour, or 26½ miles per hour, making her the fastest cruiser afloat. Her displacement is 4,000 tons, length 350 feet, 46½ feet beam, 15,000 H.P. Built by Armstrong, Mitchell & Co. Designed by Philip Watts.



THE WORLD'S COLUMBIAN EXPOSITION—EXHIBIT OF THE DIXON CRUCIBLE CO.

The Tin Mines of Maliwun.

Mr. E. H. Parker, in the *China Review*, gives an interesting account of the tin mines and mining of the Maliwun Peninsula in the Mergui in the extreme south of Burma. Victoria Point, he says, is the southernmost extremity of the Indian Empire in this direction. The Pakchan River is for 50 miles or so the boundary between the British possessions and Siam. The population of the peninsular tract is entirely Siamese, Malay, and Chinese, and Burmese is as little spoken as Burmese faces are rarely seen.

A pathway has recently been made from Victoria Point up to Maliwun, which is the chief center of the tin producing industry, and this pathway also runs north of Maliwun to the highest point of sea-going steam navigation, but, with the exception of this path, the country is one dense mass of mangrove swamp and impenetrable jungle, the haunt of rhinoceroses, elephants, bisons, wild cattle, samburs, tapirs, tigers, leopards, and other wild animals. On the opposite side of the river is Renong, a Siamese province under the rule of a Chinese rajah, whose intelligent government has changed the country from a mangrove swamp into a nutmeg garden and a tin manufacturing center.

The Pakchan River is very pretty, densely wooded hills in the distance on all sides form a very agreeable background to the tangled masses of virgin mangroves. The steamer enters a tributary called the Maliwun River to the left, but 17 miles from the mouth, and anchors a mile or two below Maliwun Creek, the haunt of alligators. Maliwun is a thriving village of perhaps 50 houses, mostly Chinese. There are two tin smelting houses, where during the smelting season seven hundredweight of tin can be smelted in a day by each furnace with four or five men. The total annual production of clean tin at present is about 50 tons a year.

The smelting apparatus is extremely simple, and is like that used by the miners of Perak. A mud furnace, just like a wine barrel, bound round and crossed with iron hoops, with a bellows consisting of a hollowed tree fitted with a piston, and connected with the furnace by a short bamboo tube let into a mud funnel, is all. The whole only costs about \$25 when new. One man drags the piston and fro, but, as this is hard work, he has to be relieved every hour or two. Another man does the stoking, putting in the charcoal, tin, and slag for resmelting at the top. Out of a small hole in the bottom, on the side opposite the hole connected with the bellows, runs the tin, which is allowed to collect in a hole in the ground, and is then shoveled into two moulded holes in the sand, made by working a wooden mould, like a huge brick rounded on one side, into the sandy soil. Nothing could exceed the extreme simplicity and economy of the whole arrangements, and hitherto no foreign machinery has ever been able to cope with them for a moment in an economical sense. The chief smelter is a Malay-Burmese widow, who, after refusing several eligible suitors, including one or two Europeans, has at last bestowed her hand upon an industrious Chinese.

Farming for a Living.

Secretary Morton reminds the croakers that only about 3 per cent of all the merchants escape failure, whereas hardly 3 per cent of the farmers fail. The statistics really show that agriculture is safer than banking, manufacturing, or railroading, taking all things into account. There is no farmer of good sense and good health anywhere in the West, Mr. Morton declares, who cannot make a good living for himself and family, and that is as well as the majority of men are doing in any other pursuit. The man who owns a farm and sticks to it is certain to profit by it in the future. There is practically no more land to be added to the area of cultivation. The supply of agricultural products has reached its limit in the United States, and must now remain stationary, while the demand will go on increasing every year. This implies a gradual improvement in prices, and a steady appreciation of the value of farming lands.

TELEPHONEMETER is the new word naming an instrument to register the time of each conversation at the telephone from the time of ringing up the exchange to the ringing-off signal. Such a system would reduce rentals of telephones to a scale according to the service, instead of a fixed charge to a business firm or occasional user alike. The instrument has been constructed at the invitation of the German telephone department and is to control the duration of telephone conversations and to total the time.