

# THE ADVOCATE OF INDUSTRY, AND JOURNAL OF SCIENTIFIC, MECHANICAL, AND OTHER IMPROVEMENTS.

### VOLUME XI.

NEW-YORK, FEBRUARY 16, 1856.

## NUMBER 23.

## THE Scientific American, PUBLISHED WEEKLY At 128 Fulton Street N.Y. (Sun Buildings.) BY MUNN & COMPANY.

N, S. H. WALES, A. E.

Federhen & Co., Boston. | Dexter & Bro., New Yor A. Winch, Philadelphia. | E. F. Fuller, Halifax, N A. G. Courtenay, Charleston. | S. W. Pease, Cincinnati, Avery, Bellford & Co., London MM.Gardissal & Co., Par Responsible Agents may also be found in all the princi-pal cities and towns in the United States. Single copies of the paper are on sale at all the periodi cal stores in this city, Brooklyn, and Jersey City. TISRMS-\$2a-year.-\$1 in advance and the remain der in six months.

### **Paris Fuel Shops**

The fuel required to cook a dinner in Paris costs nearly as much as the dinner itself.-Fuel is very scarce, and the American is surprised to find shops all over the city, fitted up with shelves like those in shoe stores, upon which is stored wood, split up in pieces about the size of a man's finger, and done up in bundles, as matches were in the days of the tinder box, steel, and flint; they are about the size of a bunch of asparagus. These little bundles sell at from two to six sous. Larger sticks are bundled up in the same way, and sell at a frightful price. Charcoal is sold by the weight, and hard coal being nearly as expensive as wood, can be bought in the smallest quantity at any of these fuel shops.

## Sugar Planters' Convention.

The sugar planters of Louisiana recently held a covention at New Orleans. The President, Hon. John More, stated in his address, that the sugar crop of 1854-5 produced 346,-635 hogsheads of sugar, and 577,840 barrels of molasses, and the crop of 1855-6, 235-000 hogsheads of sugar, and 350,000 barrels of molasses. He asserted that adequate facilities for the transaction of this trade were not furnished by the city authorities of New Orleans. This deterred him and other planters from sending their crop to that market, and he urged that, unless proper accommodations were furnished there, the planters would be obliged to combine and establish a new depot somewhere else.

The people of New Orleans should at once furnish such accommodations.

### Remedy for Toothache.

Chambers' Journal alludes to a process described by Dr. Roberts before the Royal Scottish Society of Arts, for cauterising the dental nerve, and stopping teeth without pain, by means of a wire applied to the patient's tooth perfectly cold, and afterwards instantaneously heated to the required extent by a small electric battery.

# Education in New York City.

There are 125,000 children of the proper age for schooling in New York, and they are educated at the public cost, the annual expenditure of the city for that purpose being \$917,853-almost one million dollars. This is a much larger sum than is expended in any other city of the Union, and perhaps of the world. In addition to the amount named, it is nan \$500 000 je ly spent for the support of private schools.

# Steamboat Tunnage of the United States.

Steamboat tunnage enrolled on the Ohio river Residue of the Mississippi valley Steam tunnage of the Lakes Steam tunnage on the Atlantic seaboard Steam tunnage oh the Pacific coast	Tuns. 144,473 129,050 106,154 261,283 14.279
Aggregate	655,239

Works are being erected in Birmingham England, for the manufacture of architectural devices in basalt. The "ragstone" of the locality is melted and cast in cold molds, producing a species of basalt, or glassy lava, to which the name of obsidian is given.



Ornamental Caster, made by Messrs. R. Gleam & Son, Dorchester, Mass., on which an application for a patent is pending. The novelty consists in the combination of egg cups with the caster in such a manner as to increase the elegance of the whole design. Between the curves of the caster boxes there is a small platform, furnished, in its center, with a spindle, a; on this spindle the egg cup, b, is placed, a cavity in the bottom of the cup being formed for that purpose. The spindle serves to prevent the cup from falling when the caster boxes are tipped or revolved, although from the external appearance the cups would seem to have no security of this sort.

named, terminate in graceful ornamental hooks specting the above improvement address the c d, between which the egg spoons, e, are se- manufacturers.

#### Life Boat Ships.

The Nautical Magazine recommends all ships to be built on the life boat principle; and it states that, without exception, every steamship launched in New York last year was provided with bulkheads, dividing the engine-room from the other space of the hold. The making of these vessels into water-tight compartments is a step in advance for the safety of life into five water-tight compartments, and is fitfrom the dangers of the ocean.

Our engraving is illustrative of an improved | curely hung, and by their presence add to the completeness and beauty of the design. They give the effect of pendants, so much admired

> in ornamental metallurgy of various kinds. The figurative ornaments seen on this caster are of a very rich character, and while there are combined with them the additional conveniences for egg cups and spoons, the cost of the article is hardly at all increased. These casters, we have no doubt, will become very popular. For the private dining table, the hotel, or the steamer, they are admirably appropriate.

Messrs. Gleason & Son are extensive manufacturers of this kind of ware, and have facilities for the production of the most magnifi- lower parts of the vessel-otherwise the deck The extreme ends of the platforms before cent specimens. For further information re-

> the hold would be well ventilated by a current of air constantly passing through. This is a good idea, and worthy of being promptly acted upon. For want of proper ventilation, timber | This important difference is worthy of being ships last only about half the usual time they noted down. would otherwise do.

The new steamship Fulton, which sailed on her first trip to Havre last Saturday, is divided ted up with every means to render it a steam The magazine also advocates the use of a life ship, that is if a hole were stove in her deep iron keelson, made hollow, and connected hull, as happened in the lamentable case of the It is one hundred and twelve feet long, and is with a tube at each end of the vessel, by which Arctic, it will not sink, nor can the water from capable of sustaining a load of ahundred tuns.

a leak reach the boiler room, to flood the fires. In addition to the life-boat principle on which this steamship is constructed, she has eight large Francis' metallic line-boats, capable of carrying 450 persons, and a life preserver for each. also two of Worthington's largest sized steam pumps, and 11 others, capable of being employed as fire pumps. The case of the Arctic has led to the adoption of the most efficient measures for the prevention of such a catastrophe happening to any of our steamers.

# Salts for Stables.

If a compound of gypsum and sulphate of magnesia be used on the floors of stables, it will absorb the moisture and ammonia, keep the stable dry and free from offensive smell. The compound salt, after it has absorbed all the moisture possible, is removed to be used for manure, and fresh salts applied in the same way. This is an excellent plan for keeping stables dry and healthy.

# A Worthy Example.

A correspondent of the Providence (R. I.) Journal states that Geo. M. Richmond, Esq., has established an evening school on his premises, near the Woonasquatucket Print Works, for the benifit of the juvenile portion of his help, and for as many other boys, who reside in the neighborhood, as can be accommodated. He provides them with a school-room, teachers, books, and other things necessaay for the prosecution of their studies, free of expense. Some of the boys have not had any schooling, and others have not had sufficient to be of any material benefit to them without further instruction. It is for these two classes principally, that Mr. Richmond has established the school; a part of their leisure hours devoted to useful studies wil improve their minds and correct their morals.

### What Labor Does.

To show the effects of mechanical labor in advancing the price of iron, the North British Quarterly Review presents the following calculation :--- " A bar of iron valued at \$5, worked into horse shoes is worth \$10.50; needles, \$355; penknife blades, \$3285; shirt buttons, \$29,480; balance springs of watches, \$250,000. Thirty-one pounds of iron have been made into wire upwards of one hundred and eleven miles in length, and so fine was the fabric that a part of it was converted, in lieu of horse-hair, into a barrister's wig.

### Strong Decks for Ships.

M. Nillus, a French mechanician, says that almost all vessels, whether wood or iron, have hitherto been constructed on a wrong principle. The greatest possible strength has been given to the sides and bottom, while the deck has been neglected. But a ship should be regarded as a great tube or box, capable of sustaining a load at the middle while suspended at its ends, or conversely, or sustaining loads at each end while supported at its middle .--To obtain this result with the least weight of materials, Mr. Nillus says that the upper and and the bottom-should be the strongest.

## Dry Kilns.

The advertisement of Bulkley's Dry Kilns, which appears in the appropriate column, is corrected to read "at a cost of two cents per barrel," instead of "two cents per pound."-

## Enormous Railroad Scale.

The largest railroad scale in the world, in actual use. is one built by Messrs. Fairbanks & Co., of Vermont, for the Mine Hill and Schuylkill Haven Railroad, in Pennsylvania.