New American Industries.

The *Grocer*, in summing up the new sources of wealth in this country, and alluding to the anxiety of foreign producers at our rapid strides in producing nearly all the most important staples formerly imported, says that six years ago cream of tartar was imported from France to the extent of 6,000,000 lb. yearly, but so successfully has the manufacture of it in this country been carried on, that last year not a single pound was imported. Notwithstanding that the crude materials have at present to be imported, the price of the manufactured article has been reduced from 32 cents per pound, the rate for the French article here, to 23 and 24 cents per pound for the American production. France and England formerly sent us annually 500,000 lb. of tartaric acid, while the importation for the last fiscal year was 183 lb. England formerly monopolized our market for citric acid to the extent of 250,000 lb. annually and at the rate of $1.30 per pound, while last year 27,018 lb. were imported and sold at the same price as the American article, 57 cents per pound. At present the lime juice from which citric acid is made has to be imported, but it could easily be produced from fruits grown in Florida, if only sufficient energy were put into the work. If the lemon and lime growers of the South can be induced to prepare the lime juice, the entire production and manufacture of citric acid will be kept in this country, saving hundreds of thousands of dollars annually and developing another great industry. Borax was formerly brought from England at the rate of from 600,000 to 1,000,000 lb. every year. Owing to the development of borax mines in Nevada, this importation has largely fallen off, and the report for the last fiscal year showed only 3,492 lb., and the price of the refined article, which is now prepared in this city, is only 8 to 9 cents per pound, when formerly it was 35 cents per pound, England being now among the buyers where she was the principal seller, both of the crude and refined product.

The production of fruit sirups has heretofore been entirely in the hands of the French. The long time required to transfer these goods from France to South America and the West Indies, where they are largely used, and the natural advantages of the country, induced our New York merchants to enter into competition with the European markets for the production of fruit sirups. The experiment has proved successful, and sirups of a far richer flavor have been produced much cheaper and have met with approval in the tropics. The success of the experiment bids fair to bring to the United States a large trade, and retain in the United States millions of dollars that has previously gone to other nations.

IMPROVED SNOW FLANGER.

We give herewith an engraving of an improved apparatus recently patented by Mr. David A. Cox, of Pine Bush, N. Y., for removing snow from the inner side of the track rail to make way for the flanges of the car wheels. This device, although quite simple, is said to be very effective. We are informed that it has been subjected to a practical test during the past winter, which has demonstrated its utility to the satisfaction of the railroad that has adopted it, as well as to the inventor.

The beam, A, of the car truck is mortised to receive the scrapers, B, which are slotted at their upper ends and held in place by a pin. The upper ends of the scrapers are pressed by the springs, C. The scrapers are flexible, and their lower ends are provided with a projection that extends nearly to the flange of the rail.

As the car progresses the snow is thrown outside of the track, and the path of the wheel flanges is readily cleared. The scraper being flexible yields to any rigid obstruction. The device may be applied to one or more of the trucks on the train, and it operates when the car is drawn in either direction.

Instead of using the slotted scraper the one shown in the foreground having a T-shaped head may be employed, but its action would be the same as that already described.

A Large Meteorite Found.

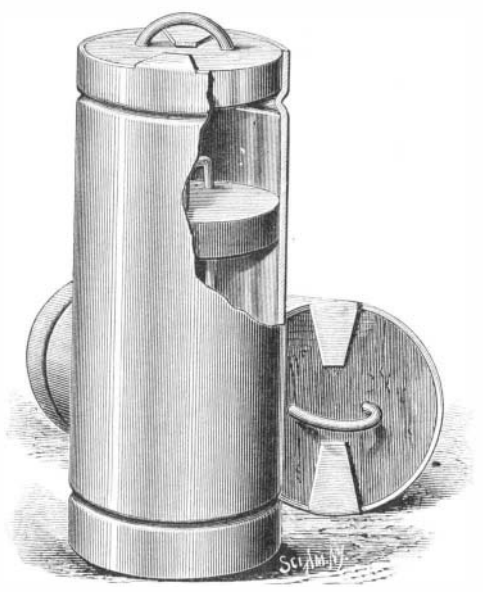
About 5 o'clock in the afternoon of May 10, a large meteor was seen to fall at the edge of a ravine near Estherville, Emmett county, Iowa, making a hole 12 feet in diameter and about 6 feet deep. S. E. Bemis writes to the Chicago *Tribune* that search parties had found numerous pieces, varying in size from 1 to 8 ounces, also four pieces about 4 lb., and one weighing 38 lb. and 2 ounces; but the largest size was found bedded 8 feet in blue clay, and fully 14 feet from the surface. Its weight is 431 lb., and its size 2 feet long by 1½ wide, and one or so foot thick, with ragged or uneven surface. It is composed, apparently, of nearly pure metal, a piece of which has been made into a ring. It makes a very pretty ring, resembling silver somewhat, but a trifle darker in color.

Not Pleuro-Pneumonia.

Professor Williams, of the New Veterinary College, Gayfield, Edinburgh, Scotland, has decided that the American cattle slaughtered at Liverpool were not suffering from contagious pleuro-pneumonia, as the veterinary officers of the Privy Council asserted. The lungs of such cattle having been submitted to him for examination, Professor Williams says that in none of them were there any of the signs of contagious pleuro-pneumonia, but all presented evidences of capillary bronchitis and collapses of certain lobules of the lungs of recent origin. In none of the lungs were there any traces of pneumonia or of pleuritis. He is of the opinion that the disease originated during transit. He adds that the above mentioned portions of lungs have been examined by Dr. Hamilton, Pathologist to the Royal Infirmary and Demonstrator of Morbid Anatomy; Dr. Young, Professor of Physiology; Mr. Vaughan, Professor of Anatomy; Mr. Kitchen, Professor of Materia Medica and Therapeutics, all of the New Veterinary College of Edinburgh, and others, all of whom agree with him as to the nature of the disease and are ready to indorse his opinion.

NEW SAMPLE CASE.

The accompanying engraving shows an improved case for sampling, holding, or conveying goods of various kinds. It



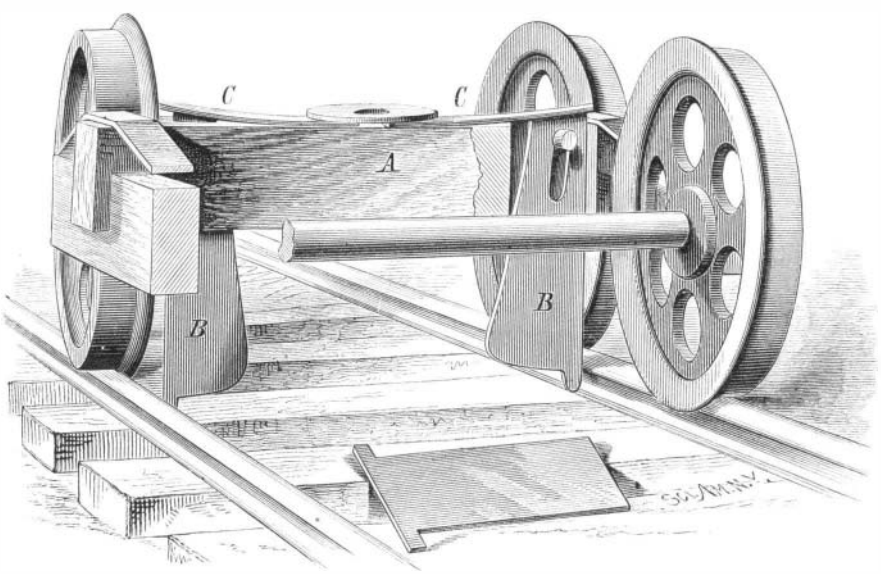
DAVIS' SAMPLE CASE.

seems especially adapted to the use of millers and others dealing in grain or flour.

It consists of a sheet metal tube having near each end indented grooves, that in reverse form ribs or shoulders on the inside of the tube, which serve as seats for the stoppers. The stoppers are of sufficient thickness to reach from the rib to the end of the tube, and are retained in place by lips formed at the end of the tube, which are bent down after the package is filled.

The tube is provided with one or more partitions or diaphragms of cork or other suitable material, which divide the package into two or more compartments, so that two or more different samples may be carried. The stoppers at the ends of the package are provided with handles to facilitate their removal.

This improved sample package was recently patented by Mr. M. R. Davis, of Jackson, Mich., from whom further information may be obtained.



COX'S SNOW FLANGER.

Growth of the Petroleum Business in the Pennsylvania Oil Fields from June, 1872, to April, 1879.

The amount of crude petroleum produced in the month of June, 1872, was 506,130 barrels. The amount of crude oil held in stock at that time in the producing regions was 1,010,302 barrels. The number of producing wells in June, 1872, was 4,144. The average daily production per well was 3 9-10 barrels. The sales of crude on board of cars in June, 1872, were from $3.80 to $4.10 per barrel.

The amount of crude produced in the month of April, 1879, was 1,507,950 barrels. The amount of crude held in stock at that time was 6,666,611 barrels. The number of producing wells in April, 1879, was 10,782. The average daily production per well was 4 6-10 barrels. The sales of crude oil certificates in June, 1872, were from 73¾ cents to 83⅛ cents per barrel.

From the above exhibit the following results appear:

1. That the production of the Pennsylvania oil fields has increased about 200 per cent. 2. That the stock of crude held in the producing region has increased over 600 per cent. 3. That the number of producing wells has increased about 160 per cent. 4. That the daily average production per well has increased 0·7 per cent. 5. That the average price of crude in April, 1879, was nearly 300 per cent less than in June, 1872.

From the above results the deduction of over production is inevitable.—*Stowell's Petroleum Reporter.*

RECENT AMERICAN PATENTS.

Messrs. D. M. Hurlburt and C. R. Slocum, of Hornellsville, N. Y., have patented an improved umbrella drip cup, which consists in a collar with a flexible rim and having attached to it a flexible bag. The drippings run into the flaring portion of the collar and from thence into the flexible bag.

Messrs. Joseph Conly and Jonas B. Wise, of Sharon, Wis., have patented an improved refrigerating building for the preservation of fresh meat and other substances to be kept cool. It consists in a peculiar arrangement of double walls, partitions, slides, etc., which cannot be clearly described without an engraving.

A horn tobacco box, consisting of two similar sections connected by flanges and rivets, and provided with a sliding cover, has been patented by Mr. Hermann Arnold, of Elizabeth, N. J.

A novel toy windwheel, consisting of a spring hammer, a corrugated bell or gong, and a metallic windwheel, attached to a handle and arranged so that the rotation of the wheel will ring the gong, has been patented by Mr. Joseph L. M. Du Four, of Bound Brook, N. J.

Mr. Frank Donaldson, of New York city, has invented an improved device to be inserted in or attached to house doors for convenience of those supplying and those receiving milk. The device holds the pitcher and the money or ticket, indicates the amount of milk required, and has a small locked door which can be opened only by the milkman, who carries a funnel adapted to the apparatus, which he inserts through the door when he desires to fill the pitcher.

An improved edging tool for lathe working has been patented by Mr. Genas B. Putnam, of Thomaston, Me. The invention consists in a flat cutting blade fitted to a handle and carrying an adjustable gauge arm, to which is attached a gauge plate that acts as a guide for the knife.

An improved means for attaching urns to stoves has been patented by Mr. Cornelius Fuller, of Somerset, Mass. It consists in a horizontally bent arm hinged to one side of the stove by a vertical pin. This arm has an eye through which passes the stem portion of the urn.

Messrs. D. W. and H. Johns and Henry Embs, of New Albany, Ind., have patented an improved machine for making ax-polls. In this machine the ax-polls are made by the rolling process, the iron bar being first bent into a V-shape and the eye formed; the ends or flanges are then closed by stationary dies as the poll comes from the roll.

An improved apparatus for utilizing waste gases of distillation in refining petroleum has been patented by Mr. Henry E. Parson, of New York city. This invention is designed to utilize the gases that are formed in the process of distilling petroleum after the oil leaves the condensing coil.

An improved clothes pounder, patented by Mr. William D. Middleton, of Elkhart, Ind., consists in the combination with a conical dasher of a perforated cylinder, a piston, and a spring, arranged so that air is forced through the clothes and through the water, facilitating the cleansing of the clothes.

In picking cotton long sacks are used, which are dragged on the ground by the pickers. When filled these sacks drag heavily and are worn out rapidly. An improved cotton sack protector, which may be easily attached to or removed from the sack, and which will obviate the difficulty referred to, has been patented by Mr. David W. Bullock, of Tarborough, N. C.

Mr. James S. Brady, of Clintondale, N. Y., has patented an improvement in dampers for stoves and furnaces, by which the draught is controlled automatically. The invention depends for its action on the expansion of the stove and pipe by an increase of heat.

Mr. Theodore Beckerman, of Henry, Ill., has recently patented a windmill which has several novel features. The spokes of the wheel and the rods and stays are made of gas pipe to secure strength, lightness, and durability. The hub is of cast iron and the sails are of sheet iron or wood. It is provided with an effective automatic governing device, consisting of a weighted lever and connections, by means of which the sails may be kept full in a moderate wind and turned more or less under a varying wind pressure, so that a uniform speed will be maintained under all working conditions. The peculiar construction of the mill admits of the use of large sails without necessarily using heavy working parts.