

patented an improved platform gear for wagons. The invention consists in a platform gear into which the two outside bars are made of metal and U-shaped in their transverse section, and are provided at their ends with plates bolted on or between their walls to the head block and front brace bar, wooden or other filling pieces being inserted in the outside bars. This construction furnishes a platform gear of light and durable character, and a rigid frame is formed having the upper surface of its bars level for receiving the bearing circle.

Mr. Stephen D. Engle, of Hazleton, Pa., has patented an improved pantograph engraving machine for engraving on metal, for reducing maps and drawings, and similar work. This machine can do almost any kind of engraving from a pattern. It enables an unskilled person to do a good job of engraving.

Messrs. Robert Barber and Burchard H. A. Siefken, of Omaha, Neb., have patented a machine which will separate from auriferous sand or earth the fine as well as the larger particles of gold with the use of only a small quantity of water. The invention consists, principally, of a washing tank communicating with a tailing tank, in which revolves a wheel provided with pivoted or swinging scoops or buckets for removing the tailings without unnecessary waste of water, the washing tank being provided with suitable conveyers, riffles, and amalgamated plates.

An improved station indicator has been patented by Mr. Virgil H. Sprague, of Greene, Me. The inventor makes use of endless belts or chains, carrying the name cards or plates, and fitted with mechanism for giving step-by-step movement to the belt, whereby the cards are successively exposed.

An improved station indicator has been patented by Mr. Zebina M. Hibbard, of St. Louis, Mich. This invention is designed as an improvement on the station indicator for which Letters Patent Nos. 209,122 and 214,776 were issued to the same inventor October 22, 1878, and April 2, 1879, respectively.

An improved type-writer has been patented by Mr. George H. Herrington, of Wichita, Kan. The object of the invention is to furnish type writing or printing machines occupying small space and adapted for use in banks, stores, and other places for registering time, amounts, and other information in connection with money received and paid. A dial and a type wheel operated by a stem carrying a hand for indicating on the dial the position of the type wheel are used. Combined with these is a paper-carrying cylinder fitted for rotation and transverse movement. The dial, type wheel, and rotating mechanism are all carried by a ring-shaped case having a tubular boss and connected by a knuckle joint with the top of a post, whereby the case may be swung to and from the platen. The shaft which operates the rotating mechanism extends through the boss of the case and is manipulated by a knob outside of the latter. This shaft or stem is moved longitudinally to set the type to and from the paper and to move the cylinder carrying the paper the necessary space between the letters. An elastic band serves to hold the types in place and to raise them after an impression.

IMPROVED DINNER BUCKET.

In the dinner bucket shown in the engraving, the body, A, tapers and its ends are rounded. In one end of the body there is a vessel, B, for holding fluids, such as coffee, tea, and milk. In the other end of the body there is a box, C, having one or more compartments for holding articles of food, such as meats and preserves. These two vessels are removable from the bucket.

The cover, D, is crowned, forming a chamber which is closed by the plate, E. This chamber is used for holding articles that may be safely carried either side up. This forms a very compact dinner bucket of very convenient form. It is the invention of Mr. John B. Schneider, of St. Jacobs, Ill.

Photographing in Theaters.

In one of the new theaters now approaching completion there will be a photograph gallery, where the portraits of visitors can be taken by lime light. This is a capital idea, and many people, especially ladies, will doubtless avail themselves of the opportunity to be taken in evening dress, the facilities for which purpose are not at present great. A photograph is pre-eminently a thing done in a hurry and on the impulse, and few people would send a ball dress to the photographer's day before and put it on by daylight in his boudoir; while the other alternative, of driving in evening dress down street at noon, is still more distasteful. Quite naturally you go from the dinner table to the theater, and in the same dress from your box to the operating room.—*London Court Circular.*

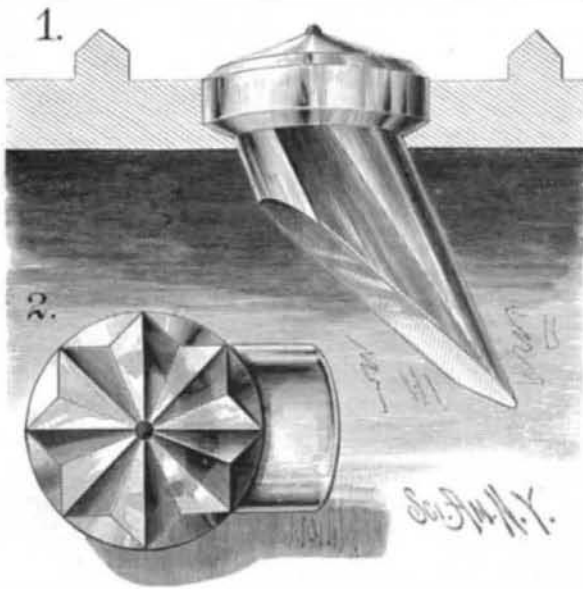
A NOVEL TOOL CHEST.—A burglar recently arrested in Leadville, but discharged for lack of evidence, is now limping about Colorado with the tools of his profession neatly concealed in his wooden leg. This convenient receptacle was not discovered by the jailer until after he had received instructions to release his prisoner.

TILE FOR ILLUMINATING PURPOSES.

The engraving shows a novel illuminating tile for pavements, vault covers, and similar purposes. The object of the improvement is to increase the quantity of light admitted and to diffuse it over a large surface.

The invention consists in an illuminating lens of semi-prism form having a very large reflecting surface.

The engraving shows a portion of a vault or pavement plate or frame fitted with the illuminating lens made of crown glass. The lens or semi-prism is formed with a flanged top portion to fit a flanged opening in the plate. The upper surface is formed with a raised center and with radiating grooves having beveled sides to increase the extent of surface. The beveled surfaces being depressed are protected from abrasion. The upper surface may, however, be of simple conical form, or in certain situations a plain flat sur-



PENNYCUICK'S ILLUMINATING TILE.

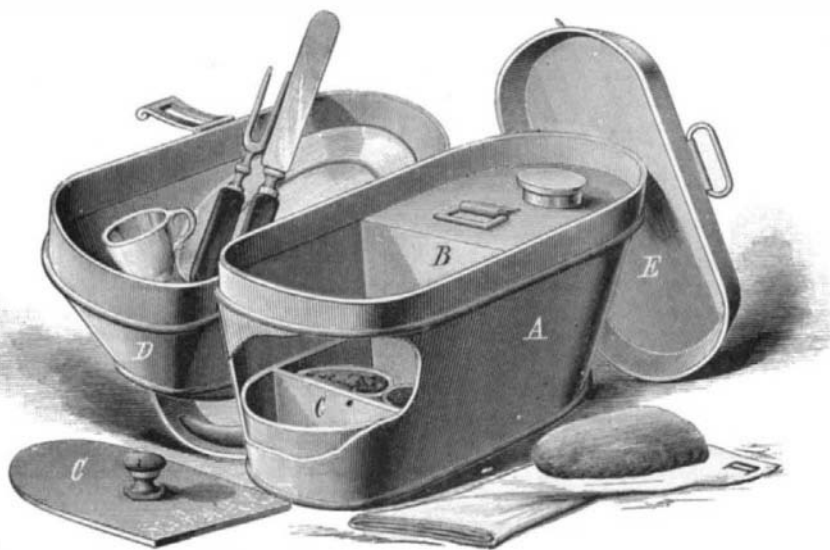
face may be used. The downwardly extending portion of the lens is a semi-prism having an inclined flat reflecting surface and an inclined back face that may be flat or nearly flat, convex, or concave. The angle of the flat surface will vary according to location, and is of the first importance. For a pavement light it should be slightly less than forty-five degrees to the plane of frame. It is lengthened by the inclination of the back surface from the head to the lower point, so that while only a limited amount of material is used, thereby saving weight and loss of light, an extensive reflecting surface is obtained at the proper angle.

At the center of the upper surface there is a metal spur which projects slightly and protects the surface. The iron frame is formed with knobs or projections between the tiles, so that the feet of persons walking over the frame shall be kept entirely off the lens, and slipping will be prevented.

This invention has been patented by Mr. J. G. Penny-cuick, of Boston, Mass.

The Names of the States.

The Hon. Hamilton B. Staples read a paper at the annual meeting of the American Antiquarian Society in Worcester,



IMPROVED DINNER BUCKET.

on the 21st inst., in which he discussed the origin of the names of several of the States. His conclusions were as follows:

New Hampshire gets its name from Hampshire, England. Massachusetts is derived from an Indian name, first given to the bay, signifying "near the great hills." Rhode Island has an obscure origin; the island of Rhodes, the "Island of the Roads," and a Dutch origin, "Red Island," were mentioned, the first seeming to have the best historical support. Connecticut is an Indian name, signifying "land on a long tidal river." New York, New Jersey, Pennsylvania, Delaware, and Maryland were passed over. Virginia, the Carolinas, and Georgia have a royal origin. Maine was named from the fact that it was supposed to contain the "mayne

portion" of New England. Vermont has no especial question, except that it is claimed to have first been an alias—New Connecticut, alias Vermont. Kentucky popularly signifies either a "dark and bloody ground," or a "bloody river," but its origin signifies "the head of a river," or "the long river." Tennessee comes from its river, the name being derived from the name of an Indian village on the river—"Tanasee." Ohio is named after an Indian name, signifying "something great," with an accent of admiration. Indiana comes from the name of an early land company. Illinois comes from the Indian—the name of a tribe. Michigan is claimed to mean "lake country;" it probably came from the name of the lake, "Great Lake," which bore this name before the land adjacent was named. Louisiana is from the French. Arkansas and Missouri are Indian, the former being doubtful; the latter is claimed to mean in its original "muddy water," which describes the river. Iowa is also Indian, with doubtful meaning. Texas is popularly supposed to be Indian, but may be Spanish. Florida is Spanish, "a flowery land." Oregon has a conjectural origin. It is probably Indian, but a Spanish origin is claimed. California comes from a Spanish romance of 1510. Nevada takes its name from the mountains, who get theirs from a resemblance to the Nevadas of South America. Minnesota is Indian, "sky-tinted water." Nebraska is variously rendered "shallow water" and "flat country." Kansas is from an Indian root, Kaw, corrupted by the French. Mississippi is "great water," or "whole river." Alabama is Indian, the name of a fortress and a tribe, signifying, as is claimed, "here we rest."

Southern Woods and Ores at the Atlanta Exhibition.

One of the notable exhibits at the Cotton Fair is a fine display of Southern woods, both rough and polished. It includes the sweet gum, a light colored wood, often worked up for coffins; the tupello, a tree that cuts like cheese, but cannot be split, used by the negroes for corks; the famous (and infamous) palmetto; the Spanish bayonet, with stiff blades sharp as needles and serrated edges; the swamp cypress, with its pointed excrescences three feet high springing from the root; and the curled pine, which takes a grain polish like the curled maple, but infinitely more vivid and beautiful.

The Georgia saw mills—there are eight hundred of them in the State—have sent in some colossal pine logs, one of them a sylvan monarch, straight as a needle, seventy feet long, twenty inches in diameter at the smaller butt, and some four feet thick at the base.

In the same building are two collections of Southern minerals, chiefly from Georgia, remarkable for their variety, utility, and number. Among them are fine specimens of copper and copper ore, sheets of clear mica a foot square, coal blocks weighing half a dozen tons, crystals, stalactites, and gold nuggets, one of the latter worth five hundred dollars.

Odd Things that have been Found about the Wrecks of Vessels.

The Coast Wrecking Company has in its office, in this city, a curious collection of relics from old wrecks and other odd bits taken from the sea. The collection embraces quaint pieces of furniture, explosive shells, and shells of the ocean, shreds of ladies' dresses, rude weapons of savage races, huge starfish, and many curious things, the use and purpose of which are still unknown. The collection contains the broken bell brought up from the ill-fated steamer Atlantic, of the White Star line, which was wrecked on Golden Rule Rock, on the Nova Scotia coast, on April 1, 1873, with a loss of 557 out of 1,007 souls on board. There is also a rusty, hiltless sword, dug out of the sand eight years ago, near the hulk of the British bark Thistle, which was lost on Squan Beach, N. J., in 1811. There are also several bottles of sweet oil, holding a pint and a half each, with the original corks intact, and the oil as clear as crystal, taken in November, 1877, from the wreck of the British bark Robert, which went down in 1844, with a cargo of lead and oil, and five of her crew, off the place where Atlantic City now stands. There is a South Sea Island canteen, ingeniously constructed of coconut shells, which was fished up from a wreck in seventy feet of water on the coast of Maine;

also a mussel shell firmly embedded four inches in depth in a well which was found one hundred and forty feet above the sealevel on the Jersey coast; also a pelican's skull and bill, measuring two feet from back to tip (making an excellent though wide dipper) which was found near the wreck of the bark Robert Fletcher, on the south beach of Long Island, and which is said to have been used to bail out the boat by the crew when endeavoring to escape. The jaws of a shark, killed on the South Carolina coast, which have been preserved, can easily be passed over the shoulders and down the body of a full-grown man. One of the most curious relics is a lamp chimney taken from the remains of the ironclad Merimac. Oysters three inches long were found attached to the glass, and four large oysters which had grown about the