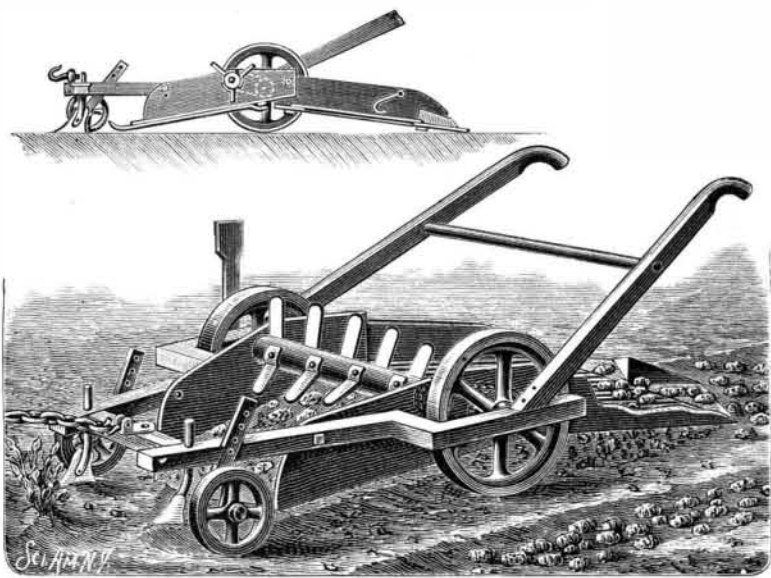


A NEW POTATO DIGGER.

An apparatus for digging potatoes from the soil and delivering the same in rows upon the ground, the tubers being cleaned by it from all adhering soil, is the subject of the invention shown in the illustration accompanying this article. It has been patented by the inventor, Mr. James Gohm, of Newport, R. I.

A frame consisting of side bars and crossbar in front is carried by four wheels. Two wheels in front are carried by adjustable bars so that the forward end of the frame can be raised or lowered at will. Toward the rear the frame is supported by the cross axle of the rear wheels. This axle is dropped low down between the wheels. A pair of small plows or cultivator blades are carried by the forward corners of the frame. Within the frame and carried by the dropped portion of the main axle is a scoop. In front the scoop is provided with a cutting edge and central plow point. At its rear end its floor consists of bars spaced so as to form a screen, and at the rear of the screen a central deflector is placed. Across the center of the scoop a drum carrying a series of blades extends, which is caused to rotate by chain and sprocket wheel connection with one or both of the main wheels. A pair of handles extends from the rear, while a chain and clevis or drawbar is provided in front for the draught animal. In operation the apparatus is drawn down the row of potatoes. The cultivator blades throw to each side surplus soil and weeds. The central hillock thus formed is entered by the point of the scoop. Earth and potatoes are forced backward over the floor of the scoop, their passage being aided by the revolving blades. As the screen is reached the earth sifts through and the potatoes roll rearward. As they meet the deflector they separate into two streams and are deposited on the ground in a double row. Thus a clear space is left for the attendant to walk upon. The scoop is jointed in the middle transversely. The front end can be depressed and adjusted by side bolts which pass through



GOHM'S POTATO DIGGER.

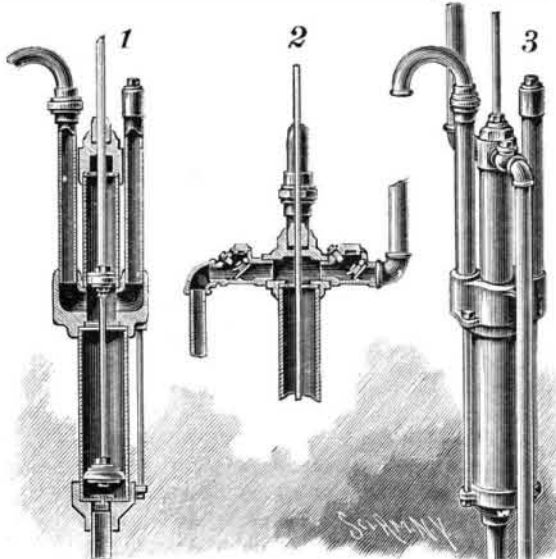
its sides and through the frame. The rear portion in operation rests upon the ground. Hooks are provided by which it can be sustained above the ground if desired.

Dion Boucicault, the Wonderful Dramatist.

The obituary notices of the late Dion Boucicault attempt to give approximate estimates of the enormous extent of this wonderful man's work, and to show that the history of the drama includes no more remarkably industrious personage. Since his death recently we have seen it estimated that \$40,000,000 has been spent in the last twenty-five years by the public to see his plays; that a single play, the "Colleen Bawn," brought him \$1,000,000, and another, the "Shaughraun," \$400,000, and that thirty-five dramas, out of his total of over 400, ran for at least 150 nights each at their first production and have been each played over 5,000 times altogether. These performances have done a surprisingly great work for the English-speaking drama as a whole, in that they have made the fortunes of scores of theatrical managers, founded theaters enough to fill a city, and cultivated a theater-going taste in the public of America which no figures can adequately define either in extent or in the time for which Boucicault's influence will last. Such a record is gigantic, colossal. We are most of us, naturally, under these circumstances, accustomed to think of Dion Boucicault as a playwright. But his quickness of mind, his tireless energy and industry, his genius for combining distinct elements into a newly created whole with an individuality of its own, and his unsurpassed intuition as to what would please and entertain the great masses of his fellow citizens, made him a successful actor as well as playwright, and his own interpretations of character on the stage had an inestimable share in the triumphs that filled his astonishing career. It is altogether doubtful if he left room in this age of the world for another like him.—*New York Press.*

A NEW AERATING AND WATER PUMP.

The expediency of aerating water, and the efficiency of aeration in destroying noxious organic matter which the water may contain, has long been recognized by sanitarians. In the present device a pump is presented which, while doing the work of an ordinary lift and force pump, also aerates the water of the cistern or well in which it is used. Its construction is



DACUS' AERATING AND WATER PUMP.

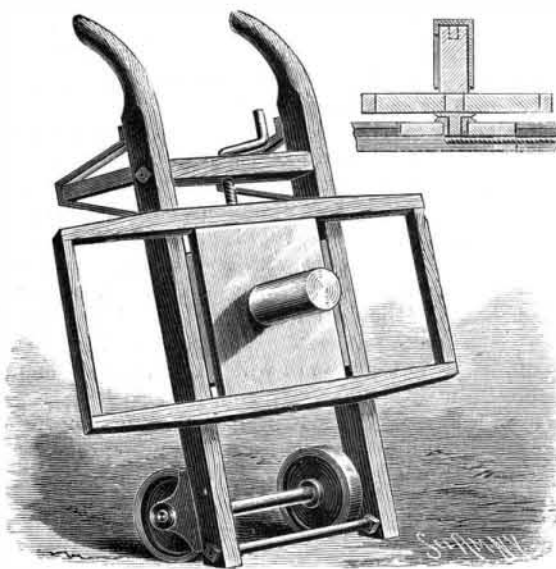
clearly shown in the cuts. It consists of two single-acting pump barrels and pistons arranged in vertical alignment, one above the other, the piston rods being joined together. Fig. 1 shows this arrangement in section. The lower piston contains a valve opening upward, and a similar valve closes the lower end of the lower cylinder. On the right of the section is seen a closed pipe that acts as air reservoir, on the left is the water discharge pipe. This combination represents the ordinary force pump and works accordingly. The cylinder and piston which surmount it form an air pump. In Fig. 2 the arrangement of the valves and connections of the upper cylinder is shown. The pipe on the right, which extends up to the surface of the ground, with valve opening inward, admits air to the cylinder on the down stroke of the piston. The pipe on the left, with valve opening outward, leads down to the bottom of the well. On the up stroke of the piston, the air from the cylinder above it is expelled through this pipe, bubbling through and aerating the water in the well. The two pump chambers are connected by a chambered union coupling, and in Fig. 3 the method of assembling the parts is illustrated.

The device, it will be seen, can be applied to many common kinds of pumps.

This improvement is the invention of Robert H. Dacus, of Dardanelle, Ark., by whom it has been patented.

LYON'S TRUCK.

The handling of belting, rope, lath, yarn, or other flexible goods required to be put up in rolls can be greatly facilitated by the use of the hand truck illus-



TRUCK FOR RECEIVING BELTING.

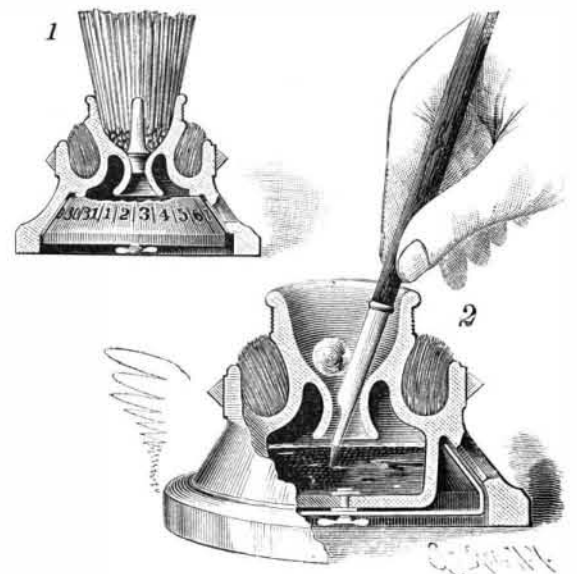
trated in the accompanying illustration. This is the invention of Mr. Samuel Lyon, of 66 South Canal St., Chicago, Ill.

A platform is arranged to slide in grooves in the sides of the frame of the truck, and the position of this plat-

form is regulated by a screw-threaded shaft located underneath the same, which may be revolved by means of a crank at one end. A rectangular frame is mounted pivotally upon this platform, and may be revolved in any direction. It bears at its center a drum fixed rigidly thereto. A sleeve having transverse handles and a slot in its side is arranged to fit over this drum. In the general view of the truck the drum is shown without the sleeve, but the detail at the right hand corner shows the location of the sleeve when put in position for winding. The end of the belt or object to be wound is inserted in the aperture or slot in the sleeve, and this is rotated, by means of the handles, until the desired amount of belt has been wound off. The belt can then be wheeled to any part of the building. The belt can be readily cut by means of this device from either end of the roll, and if, for any reason, more has been taken off than is required, it can easily be put back again. The reel can be raised or lowered as desired, and the roll can be readily tightened from the center.

NEW DESK, TOILET AND DISPLAY BOTTLE.

A bottle of peculiar construction, combining the requirements of an inkstand, match safe or perfumery bottle, together with pen wiper, calendar, and other adjuncts, is the subject of the illustration. It has been patented by Mr. Theron H. Palmer, of San Bernardino, Cal. The main portion of the bottle rises from its base in generally conical shape. Within it is a well that may be used for ink or perfume. An annular exterior chamber that surrounds the central aperture may be filled with hair or other brush-forming fiber to act as a pen wiper. The portion immediately above this is roughened to give a surface on which to strike matches. The conical part of the base is transparent and is adapted to have pasted or secured within it any matter for display, such as advertisements, etc. An



PALMER'S NEW DESK, TOILET AND DISPLAY BOTTLE.

aperture is left in the base over which no advertising matter is allowed to extend. Within the base a truncated cone of metal or other material is arranged to rotate. It is marked with the days of the month, and one of its designations can be seen through the aperture. This constitutes a calendar. Different forms of stopper can be used. In the cuts a ball valve is shown in use for an inkstand, and for the match safe another form of stopper is provided, as shown in the upper figure of the cut. A third form of stopper, which closes tightly the upper portion of the mouth, is used when the bottle is to contain perfume.

A British Torpedo Boat Picked up at Sea by an American Schooner.

A dispatch from North Sydney, C. B., gives particulars of the arrival there of the American schooner Samuel R. Crane, of Gloucester, Mass., having in tow the British first class torpedo boat No. 62, which was picked up at sea in good condition, but with nobody on board. This torpedo boat was attached to the Newfoundland fishery protection fleet, carried a crew of twenty-one men, and was in tow of her Majesty's ship Pelican when the gale of October 12 broke her away. The Pelican stood by the boat till dark, but in the morning she could not be seen.

No. 62 was one of forty-eight similar vessels that belong to the British fleet of first class torpedo boats, of which there are eighty-six in all. These boats are 125 ft. in length, with from 60 to 66 tons displacement and 750 horse power. Their speed is about twenty-one knots. No. 62 was built by Yarrow & Co., at Poplar, London, in 1886, and was sent to Halifax last summer as an adjunct to the coast defense fleet at that port. Her armament consisted of five torpedo guns, two three-pounder Hotchkiss quick-firing guns, and two two-barreled Nordenfolt guns. She also carried an electric search light.

When picked up, the torpedo boat's holds were battened down. Nothing has been heard of her crew.