

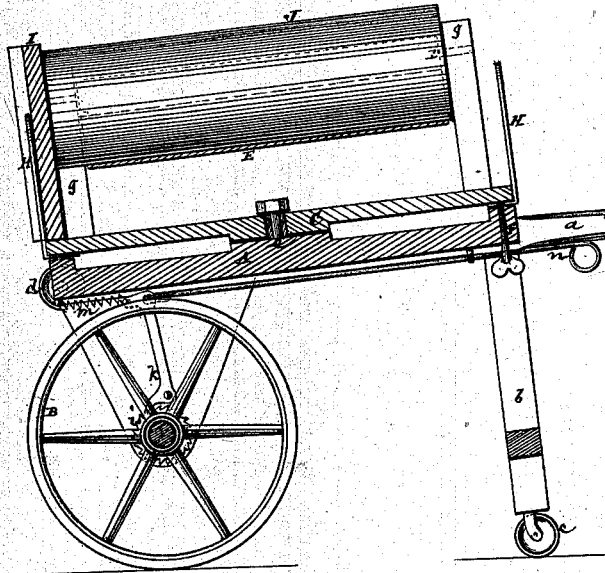
D. W. BROWN.

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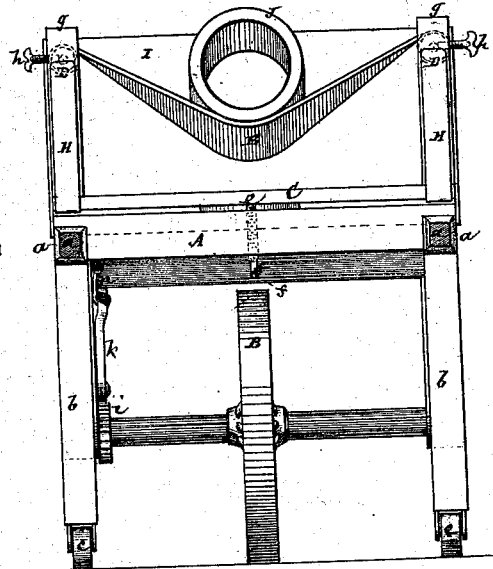
No. 112,538.

Patented Mar. 14, 1871.

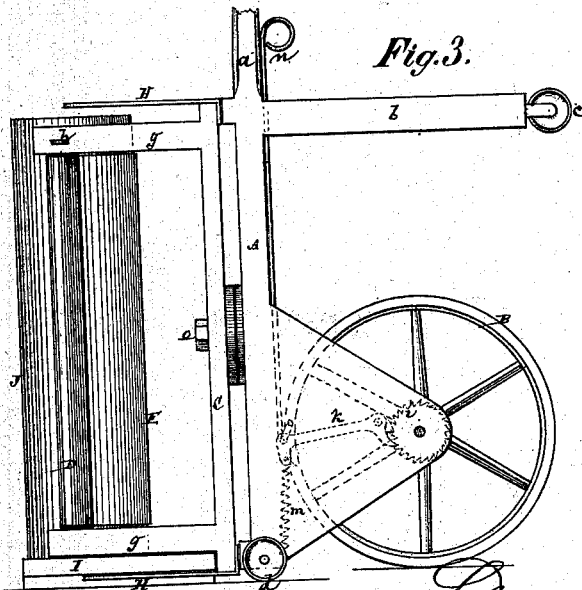
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses.*

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# UNITED STATES PATENT OFFICE.

DANIEL W. BROWN, OF WOODBRIDGE, NEW JERSEY.

## IMPROVEMENT IN APPARATUS FOR CARRYING DRAIN-PIPES.

Specification forming part of Letters Patent No. 112,538, dated March 14, 1871.

*To all whom it may concern:*

Be it known that I, DANIEL W. BROWN, of Woodbridge, in the county of Middlesex and State of New Jersey, have invented a new and useful Apparatus for Carrying and Handling Drain and other Pipes or Articles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 represents a longitudinal vertical section of the apparatus in one of the positions it is made to assume and with a pipe as being carried by it; Fig. 2, an end view of the same, and Fig. 3 a side view of said apparatus in a different position.

Similar letters of reference indicate corresponding parts.

My invention has reference to the lifting or carrying and handling of various articles composed of soft or plastic material, including drain and other pipes made of clay to protect them from being marred or bruised in the course of being handled and transported prior to being fired, and to lessen the labor of handling and carrying them. As the invention is more especially designed for the carrying and handling of such pipes, it will here be described accordingly.

The invention consists in an apparatus of a truck-like construction, which provides for the lifting, turning or inverting, and removal of the pipe or article, free from any direct contact of the hand or of tools to the surface thereof.

Referring to the accompanying drawings, A represents the body of the vehicle or apparatus, having handles *a a*, and provided with a running wheel, B, in front, to allow of the apparatus being manipulated as a hand-truck or wheelbarrow, and the legs *b b* of which, in the rear, may also be fitted with rollers *c c*. The body A is also furnished with rollers *d* in front, the object of which will be hereinafter explained.

Pivoted on the body A, as at *e*, is a rotating platform, C, which may be held by a set-screw, *f*, in the position to which it has been turned. Mounted in posts *g g*, on opposite sides of this platform, are rollers D D, which serve to carry an apron, E, of canvas or other suitable flexible material, that is thus extended in a bellied form over the platform C, and may have more or less belly given it, according to the size of

the pipe it is designed to hold, by suitably turning the rollers D D, and afterward securing them, as by set-screws *h h*. The opposite ends of the platform C are also fitted with metallic plates or thin uprights H H, arranged outside of the posts *g g*, and between which and the posts a space is left for the free insertion of a board, I, that may be the base-board of the mold in which the pipe to be handled is made.

J is a pipe in the act of being handled and carried. Supposing said pipe to stand endwise on the board I, as left by the mold when said board is detached from the apparatus, it will be necessary, in order to pick up the pipe, to upset or turn the apparatus over on its end, as represented in Fig. 3, and to run it by its front rollers, *d*, and wheel B, so that the front plates or uprights, H H, pass under said board, which latter will thus be received between said plates and the approximate posts *g g*, the pipe J occupying an intermediate position. The apparatus may then be returned to its normal position, (shown in Figs. 1 and 2,) with the pipe J resting on or within the bellied apron E, which, by its soft and yielding nature, protects the pipe from being marred or bruised, and holds it from rolling off the apparatus during transportation by the latter.

When tipping or tilting the vehicle from the position shown for it in Figs. 1 and 2 to that exhibited for it in Fig. 3, there would be danger of its "flying from under," as it may be termed, by back-run of the wheel B. This would be objectionable, not only on account of retarding or interfering with the inversion and manipulation of the vehicle, as described, but as endangering the throwing of the pipe off from the apron when setting it up on end again by tilting the vehicle or apparatus for the purpose. To provide against this I lock the running wheel B, as by a ratchet, *i*, on its shaft, against backward travel, yet provide for back-run under control of the operator, when required in the general working of the apparatus. To this end the pawl *k*, which holds the wheel B from back-run by its bite on the ratchet *i*, under control of a spring, *m*, is made capable of being thrown out of gear with said ratchet at pleasure by means of a rod or handle, *n*, within convenient reach of the operator, by his hand or finger while trundling or holding the apparatus by its handles *a a*.

The turning or rotating of the platform C

with the pipe J on it allows of the turning of the pipe end for end by slipping the board I into or between the rear set of posts, *g g*, and strips H H, when the apparatus occupies the position represented for it in Figs. 1 and 2, and then rotating the platform till said board comes in front, and afterward tilting the vehicle to the position shown for it in Fig. 3. This reversed exposure of the ends of the pipe facilitates the trimming of the pipe at its ends and gaging of it; also allows of either end being carried foremost, and of being made the base on which the pipe rests when the vehicle has been tipped or tilted, and, by running the latter backward, the pipe left on the board I detached from the apparatus. In this way it will be seen that the pipe J is picked up and delivered by the board I, and that it is carried or borne by the apron E not only during transportation, but while being picked up by and delivered from off the apparatus—in fact, during all handling or carrying of it.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination of the rotating platform C and apron E with the body A of the vehicle or apparatus, substantially as specified.
2. The combination of the adjustable rollers D D with the apron E and rotating platform C.
3. The combination of the lifting-uprights H with the rotating platform C, the apron E, and the body A of the vehicle or apparatus, for operation in connection with the removable board I, essentially as described.
4. The combination, with the wheel B, of the ratchet *i*, the spring-borne pawl *k*, and the rod or handle *n*, essentially as and for the purposes herein set forth.
5. A hand vehicle or apparatus for handling and carrying pipes and other articles made of soft or plastic material, constructed and organized substantially as herein described.

DANIEL W. BROWN.

Witnesses:

S. E. ENSIGN,

J. F. CLARKSON.