

(No Model.)

W. BURKET.
EXCAVATOR AND GRAPPLE.

No. 283,963.

Patented Aug. 28, 1883.

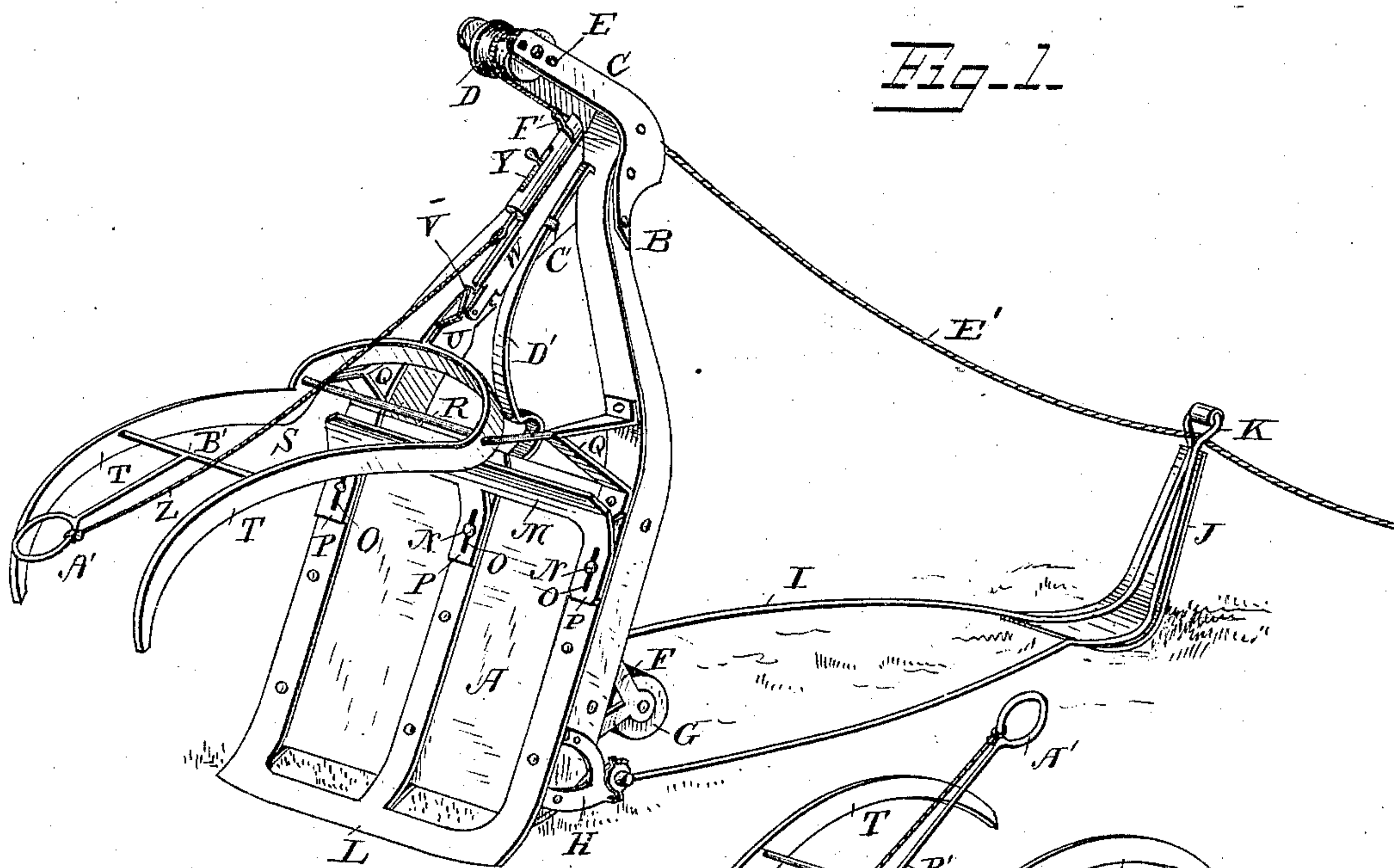


Fig. 2.

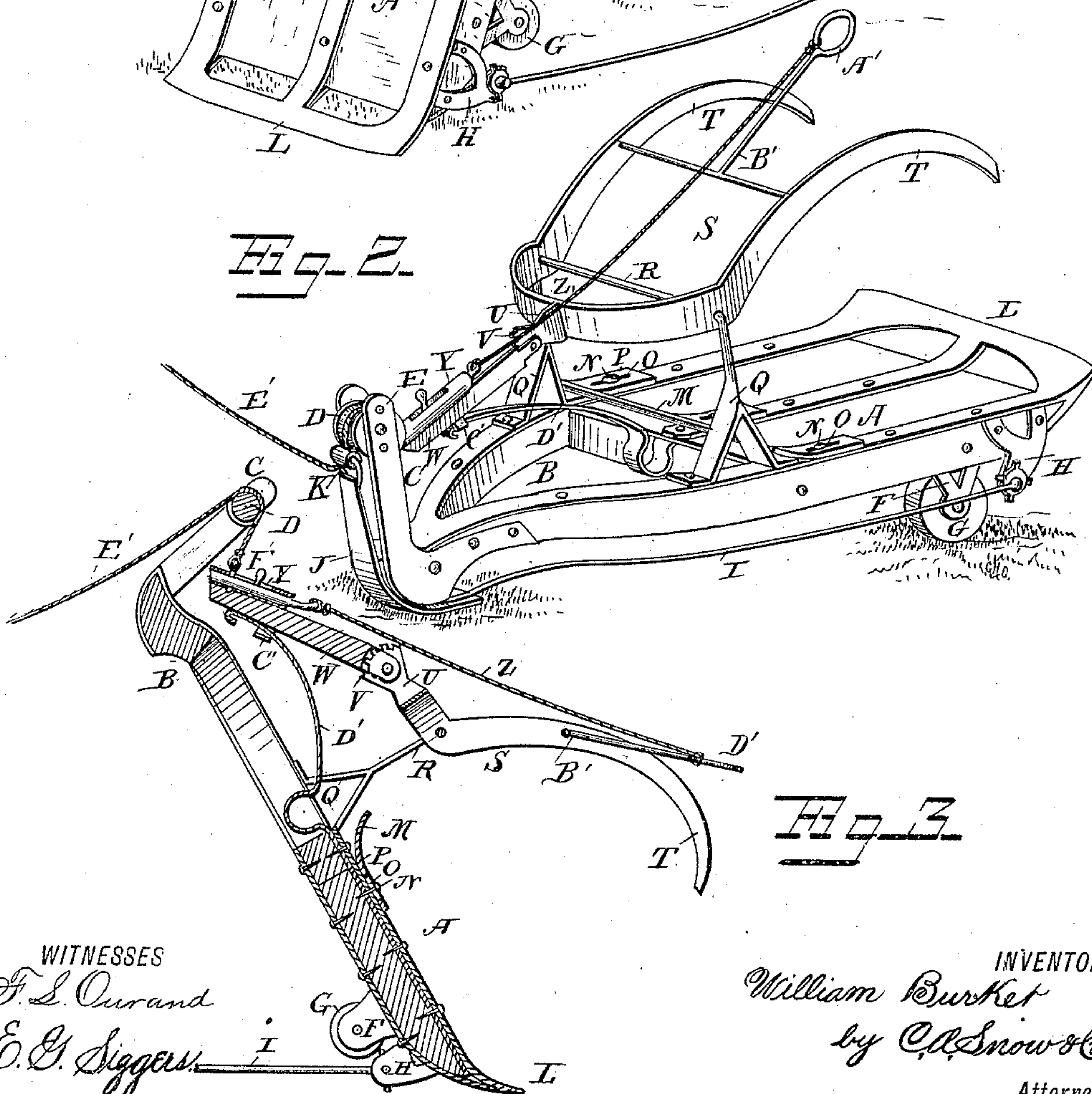


Fig. 3.

WITNESSES

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WILLIAM BURKET, OF ETNA GREEN, INDIANA.

EXCAVATOR AND GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 283,963, dated August 28, 1883.

Application filed July 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BURKET, a citizen of the United States, residing at Etna Green, in the county of Kosciusko and State of Indiana, have invented a new and useful Excavator and Grapple, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to excavators and grapples, and is an improvement on the device for which Letters Patent of the United States No. 277,455 were granted to myself on the 15th day of May, 1883.

The object of the present invention is to adapt the device more particularly to the moving of rocks and other heavy and solid masses; and with this object in view it consists in the improved construction and arrangement of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view, showing the device in position for loading. Fig. 2 is a perspective view, showing the device tilted for transportation; and Fig. 3 is a vertical sectional view of the device in the position shown in Fig. 1.

The same letters refer to the same parts in all the figures.

A in the drawings designates a platform having a forwardly-projecting bail or handle, B, the front end of which is provided with an upturned fork or bracket, C, at the upper end of which is journaled a grooved pulley, D, the shaft of which may be adjusted vertically in any one of a series of perforations, E. The sides of the platform A are provided with downwardly-projecting brackets F F, to which the wheels or casters G G are journaled, as shown in the drawings. The sides of platform A, in rear of the brackets F, are provided with hangers H, to which are hinged the ends of a bail, I, extending forwardly and having its front end turned upward in front of the bracket or fork C. The curved front end of the bail I is shod with a solid plate or runner, J, and it terminates at its upper end in a ring or eye, K. The rear end of the platform A has an upturned frame, L, which is well adapted to be inserted under the stones or articles to be moved. Misanothert upturned frame, secured adjustably upon the forward end of the plat-

form by means of bolts N, passing through slots O in the legs P of the said frame. The latter, it will be seen, may by this arrangement be so adjusted as to prevent the stone or other article from rocking upon or rolling off the platform A while being transported. The sides of the bail or handle B are provided directly in front of the platform A with up-rights or standards Q, connected by a rod or bail, R, upon which is hinged a frame, S, having curved arms T, that extend rearwardly over the platform A. Frame S also has a forwardly-extending arm, U, terminating in a segmental rack, V. Hinged or pivoted to the arm U is a lever, W, which, by means of a suitable catch-engaging rack, V, may be adjusted at any desired angle to the said arm U and frame S. The rear end of the lever W has a spring latch or catch, Y, adapted to be operated by a pull-cord, Z, passing through an eye, A', at the rear end of a bar, B', connected to the frame S. The under side of the lever W has a bail or keeper, C', through which passes a spring, D', attached to the front end of the platform A, and serving to draw the said lever W automatically in a downward direction, thus raising the frame S from platform A. The extent to which the frame S may be thus raised will be regulated by the angle at which it is connected with the lever W, thus enabling the machine to be adjusted for manipulating objects of different sizes. Through the ring or eye K, at the front end of the bail I, passes the draft-rope E', which is equipped with a ring, F', adapted to engage the spring-catch or trip mechanism Y.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. To load the device the platform is tilted to the position shown in Fig. 1, when the curved frame, at its rear end, may be inserted under the object to be moved. The ring F'; at the end of the draft-rope, is then placed in engagement with the trip mechanism and draft applied. The result of this will first be to draw the lever W in an upward or outward direction, thus causing the curved arms T of frame S to grasp and hold the object to be moved. When the draft continues the platform A is tilted to an approximately horizon-

tal position, the object to be moved being held upon it by the curved frame S. It may now be moved to the dumping-place, when, by drawing the trip-rope, the weight upon the curved frame at the rear end of the platform will tilt the latter and dump the load, the curved frame S being at the same time thrown out from the platform by the action of the spring D' upon the lever W.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. The combination of the platform mounted upon wheels or casters, and having a forwardly-extending bail or handle provided with an upturned fork or bracket at its front end, a bail hinged to downwardly-projecting hangers in rear of the wheels of the platform extending forwardly in front of the handle, and having an upturned shoe or runner provided with a ring or eye at its upper end, a grappling-frame hinged above the platform and having a forwardly-extending lever provided with a trip-catch at its front end, and a draft-rope having a ring adapted to engage the trip-catch, all arranged and operating substantially as set forth.

2. The combination, with the main platform mounted upon wheels or casters, substantially as shown, of the grappling-frame hinged above the said platform and having a lever adjustable at various angles to the body of the said frame, and mechanism for manipulating the said grappling-frame, substantially as set forth.

3. The combination of the main platform, the hinged grappling-frame having a forward-

ly-extending lever, and a spring arranged to engage the said lever, so as to throw the said grappling-frame automatically in an upward and outward direction from the platform, as set forth.

4. The combination, with the platform having a rearwardly-extending curved frame, of a curved holding-frame longitudinally adjustable upon the front part of the said platform, substantially as set forth.

5. As an improvement in excavators and grapples, the combination of a platform mounted upon casters and having a forwardly-extending handle provided with an upturned front bracket having a grooved roller, an upturned curved frame at the rear end, and an adjustable curved frame at the front end of the said platform, a forwardly-extending bail hinged near the rear end of the platform and having an upturned shoe or runner and a ring or eye, through which passes a draft-rope having a ring or link at its end, a grappling-frame hinged above the platform and having an adjustable arm or lever, a spring engaging said lever and drawing it downward, and a catch or trip mechanism upon the said lever adapted to engage the ring at the end of the draft-rope, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM BURKET.

Witnesses:

JOHN MINER,
SAMUEL R. HAMLIN.