

(No Model.)

2 Sheets—Sheet 1.

G. S. INGLE.

PORTABLE ELEVATING AND BAG HOLDING MACHINE.

No. 519,261.

Patented May 1, 1894.

Fig. 1.

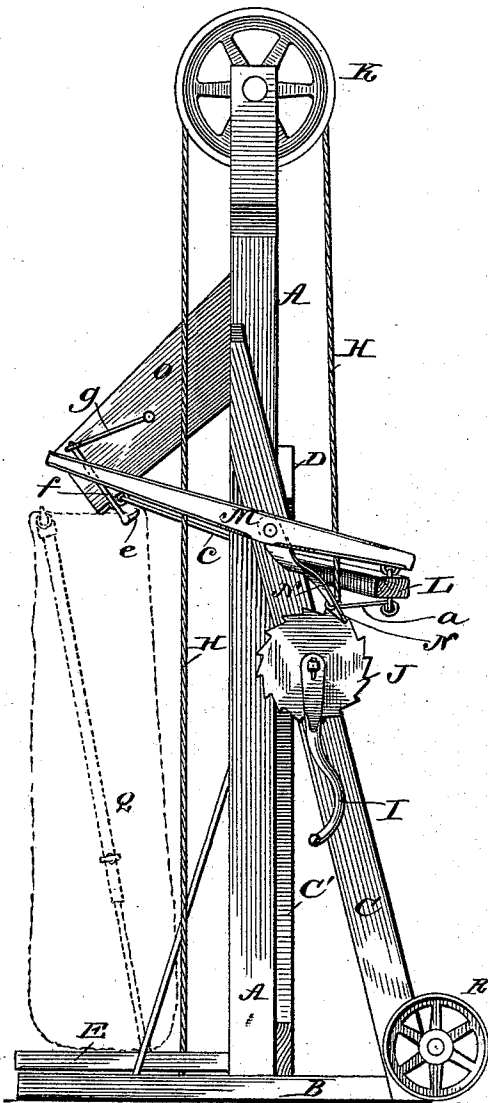
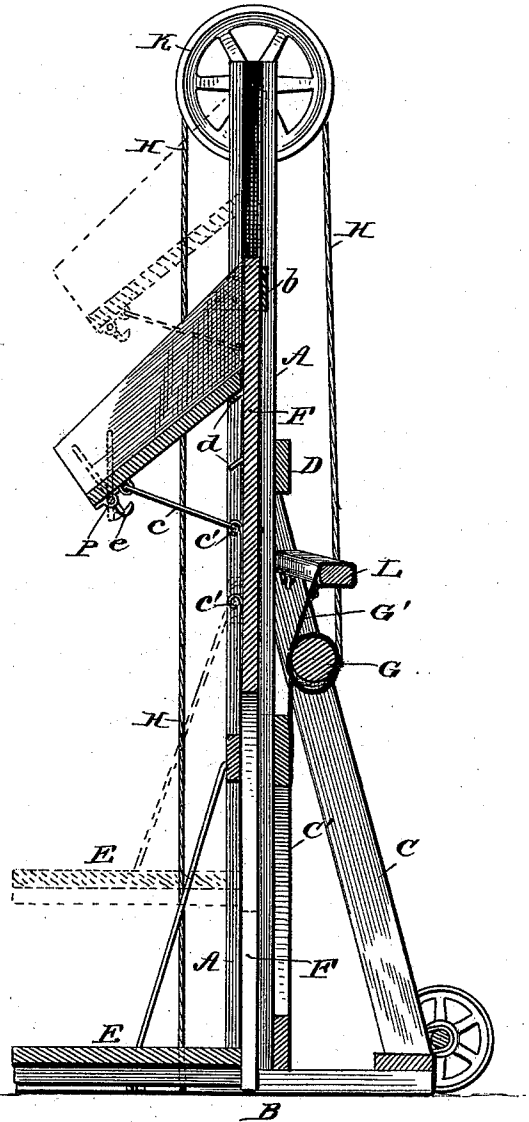


Fig. 2.



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Fig. 3.

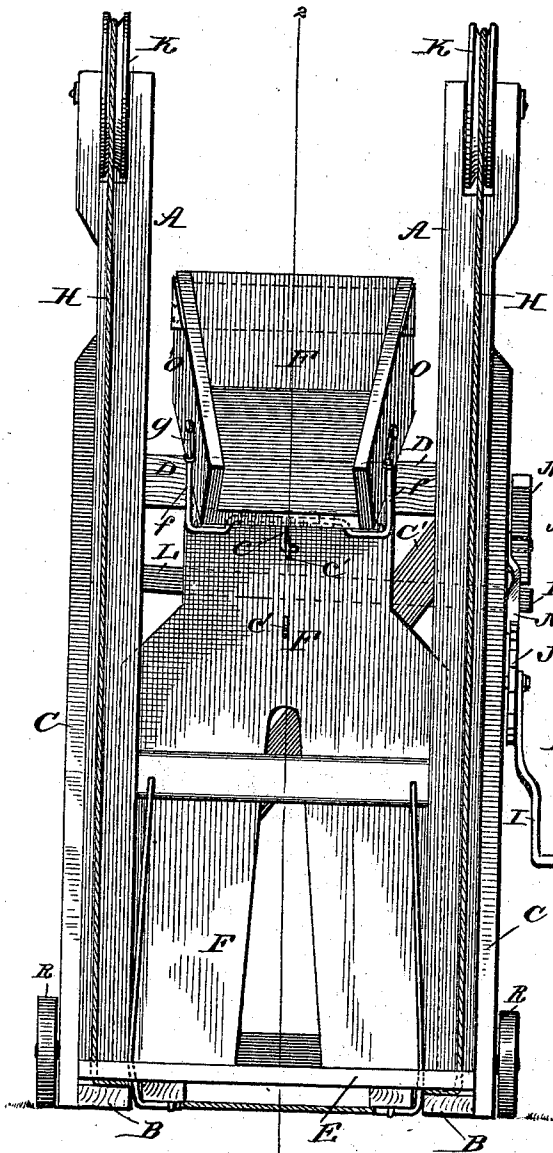


Fig. 4.

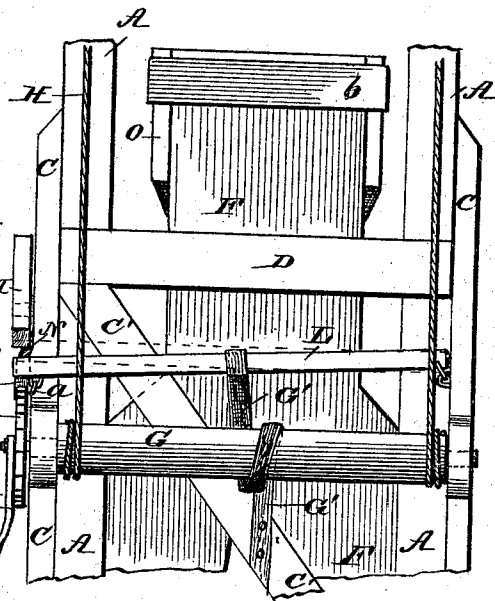
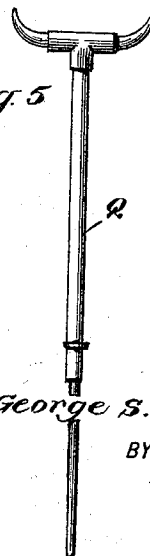


Fig. 5.



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GEORGE SUTTON INGLE, OF EVANSVILLE, INDIANA.

PORTABLE ELEVATING AND BAG-HOLDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 519,261, dated May 1, 1894:

Application filed March 27, 1893. Serial No. 467,887. (No model.)

To all whom it may concern:

Be it known that I, GEORGE SULTON INGLE, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented a new and Improved Portable Freight-Elevator and Bag-Filler, of which the following is a specification.

My invention is embodied in a portable frame, composed of a horizontal base and two uprights or standards held therein, a platform adapted to slide on the latter, and means for raising, lowering and locking said platform, a spout, or chute, adapted for detachment from and vertical adjustment on said standard, and movable hooks or analogous devices attached to the spout for supporting the mouth of a bag and holding it open while being filled with grain or other material. By means of the adjustable platform, or elevator proper, bags, barrels or other forms of freight may be easily hoisted to such a height as will enable them to be conveniently removed to a man's shoulder, so that he may be saved the extra exertion of stooping and lifting the bag or other freight from the ground or floor. The means for raising the platform also form an essential portion of a friction brake used for retarding the rapidity of descent of the platform on the uprights or standards.

In accompanying drawings—two sheets—Figure 1 is a side view of the invention. Fig. 2 is a central vertical section, on line 2—2 of Fig. 3. Fig. 3 is a front view. Fig. 4 is a rear view of a portion of the elevator and bag-filler. Fig. 5 is a detail view showing a prop used for holding the mouth of a bag open.

Two parallel uprights or vertical standards, A, are fixed on a horizontal base frame, B, and held rigidly in place by inclined braces C, C', and a horizontal cross bar, D, (Fig. 4.)

The elevator proper comprises the platform, E, and the vertical movable standard, F, (Figs. 2 and 3,) which slides freely in grooves formed in the inner sides of the uprights, A. The two parts are rigidly connected. The means for hoisting them to any required height, permitted by the size of the apparatus, are a roller, or shaft, G, and cords, or ropes, or chains, H. The roller is journaled in rear of the uprights, A, on the inclined braces, C, and provided at one end with a

crank, I, and ratchet disk, J, which are fixed on one of its gudgeons, as shown. The said cords, H, pass over grooved pulleys, K, journaled in the tops of the uprights, A, and are attached at their respective ends to the platform, E, and the roller, G, as shown best in Fig. 2.

The friction brake is composed of the roller, G, and a leather or steel band G', (see Figs. 2 and 4) which is wrapped once around the roller, G, and secured at its respective ends to the inclined brace, C', and to a lever bar, L, which is arranged transversely and pivoted at one end to one of the uprights, A, the other or free end of said bar being loosely connected with a hand lever, M, (Fig. 1,) pivoted on an upright, A, and arranged above but adjacent to the aforesaid ratchet, J, so that it may be conveniently manipulated by the person operating the crank, I. A pawl or dog, N, is pivoted on the fulcrum of the lever, M, and normally engages the ratchet, J. A rod, a, connects the free or engaging end of said pawl, N, with the adjacent end of the lever bar, L, so that when the latter is elevated by operating the hand lever, M, the pawl will be disengaged from the ratchet, J. It will be noted, however, that this same movement of the lever bar, L, also will tighten the band, G', around the roller, G, so that the brake is applied with any required degree of force. In other words, when the crank, I, is rotated, the cords, H, are wound on the roller, G, and the platform, E, thereby hoisted, and it will be automatically locked in its elevated position (shown in dotted lines Fig. 2), by engagement of the pawl, N, with the ratchet, J; further, when it is desired to lower the platform, E, the free end of the hand lever, M, is depressed, which simultaneously releases the pawl from the ratchet, and simultaneously tightens the band, G', on the roller, G, and thus applies the friction brake, so that the descent of the platform, E, is regulated at will.

The apparatus thus far described may be used for elevating the various kind of freight; but to adapt it for use in filling bags with grain, or other product, a spout, or chute, O, is detachably connected with the upper end of the movable standard or upright, F, forming part of the elevator proper. This spout,

O, is open on the top and at each end, and at the rear it is provided with a cross bar *b* (Figs. 2 and 4), which engages the upper portion of the movable standard F. The bottom of the 5 spout, O, rests against the standard, F, and the spout is prevented from sliding downward by means of a hook, *c*, and stops, *d*, (see Fig. 2.) The stops, *d*, project from the face of the standard, F, and the hook, *c*, is 10 pivoted to the lower end of the spout and engages a staple, *c'* on the standard, F. Several of these stops, *d*, and staples, *c'*, may be employed to furnish support for the spout, O, at different heights above the platform, as required for bags of different lengths. It will 15 be understood, that the spout is not only thus adapted for vertical adjustment, but may be readily detached altogether.

In filling bags—say with grain—they are 20 set upon the platform E—as shown by dotted lines Fig. 1—and the mouth or open upper end is attached to hooks, *e*, formed of a rock shaft, P, which is hung (see Fig. 2) in staples or other bearings on the under side of the 25 spout, O. Arms, *f*, project upward from the ends of said rock-shaft, P. Rods, *g*, are pivoted to the sides of the spout, O, and provided with eyes, or rings, at their free ends. The hooks, *e*, and arms, *f*, hang normally vertical, 30 as shown by dotted lines in Fig. 2, but when a bag is attached, they are locked in the inclined position, shown in full lines, Figs. 1 and 2, by means of the rods *g*, whose eyes receive the upper ends of the arms, *f*. As an 35 additional means for holding the mouth of the bag distended, I employ the pronged device, Q, shown in Fig. 5, which consists of a cross bar having two upwardly-projecting prongs, and a vertical portion, or standard, 40 which is formed of two parts, one being adapted to slide in the other and secured by a clamp-screw. This device, Q, is placed in the bag, as shown by dotted lines Fig. 1, and its prongs engage the mouth of the bag at points 45 opposite the hooks *e*. Thus the bag mouth is held distended to its fullest capacity. The length of the standard or device Q may be adjusted to adapt it for use with bags of different lengths. When the bag has been filled,

the device Q is removed from the bag and the 50 locking bars *g* released from the arms *f*, so that the hooks *e* will in turn release the bag.

The base B is provided with wheels R which are normally out of contact with the surface 55 on which the base rests, but may be made to serve as transporting wheels in moving the apparatus from one place to another when the frame A, B, is inclined at a sufficient angle—as will be readily understood.

What I claim is—

1. The combination, with guiding uprights 60 and a platform and movable standard adapted to slide on said uprights, a roller, and cords attached thereto and to said platform, of a band, passing around said roller, and means 65 for locking the platform at different heights, also for applying tension to said band and simultaneously releasing the locking mechanism, substantially as shown.

2. The combination, with grooved uprights, 70 the platform and a standard adapted to slide in the former, of a roller journaled in rear of the uprights, cords connecting it with the platform, a hand lever, pivoted pawl, and 75 ratchet, a lever bar, pivoted at one end and connected with the hand-lever at the other, and a friction band, wrapped around the roller and attached at its respective ends to said lever bar and the upright frame, as shown and 80 described.

3. The combination, with the vertically adjustable platform and a standard, and means 85 for hoisting and lowering them, of a detachable spout, a bar attached to its rear end for engaging the standard, and a pivoted hook and fixed stop for supporting the spout at any required height, as shown and described.

4. The combination, with a platform and standard, F, of the vertically-adjustable 90 spout, O, means for hoisting and lowering said parts, and movable devices, *e f*, attached to the spout for engaging the mouth of the bag, as shown and described.

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Witnesses:

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