

No. 645,794.

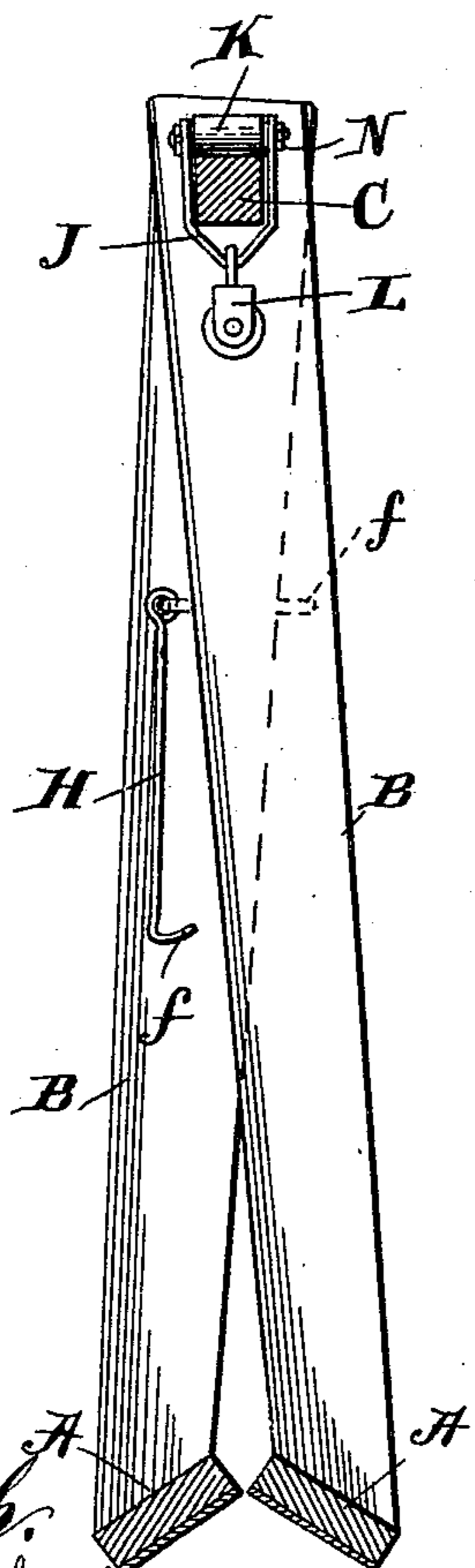
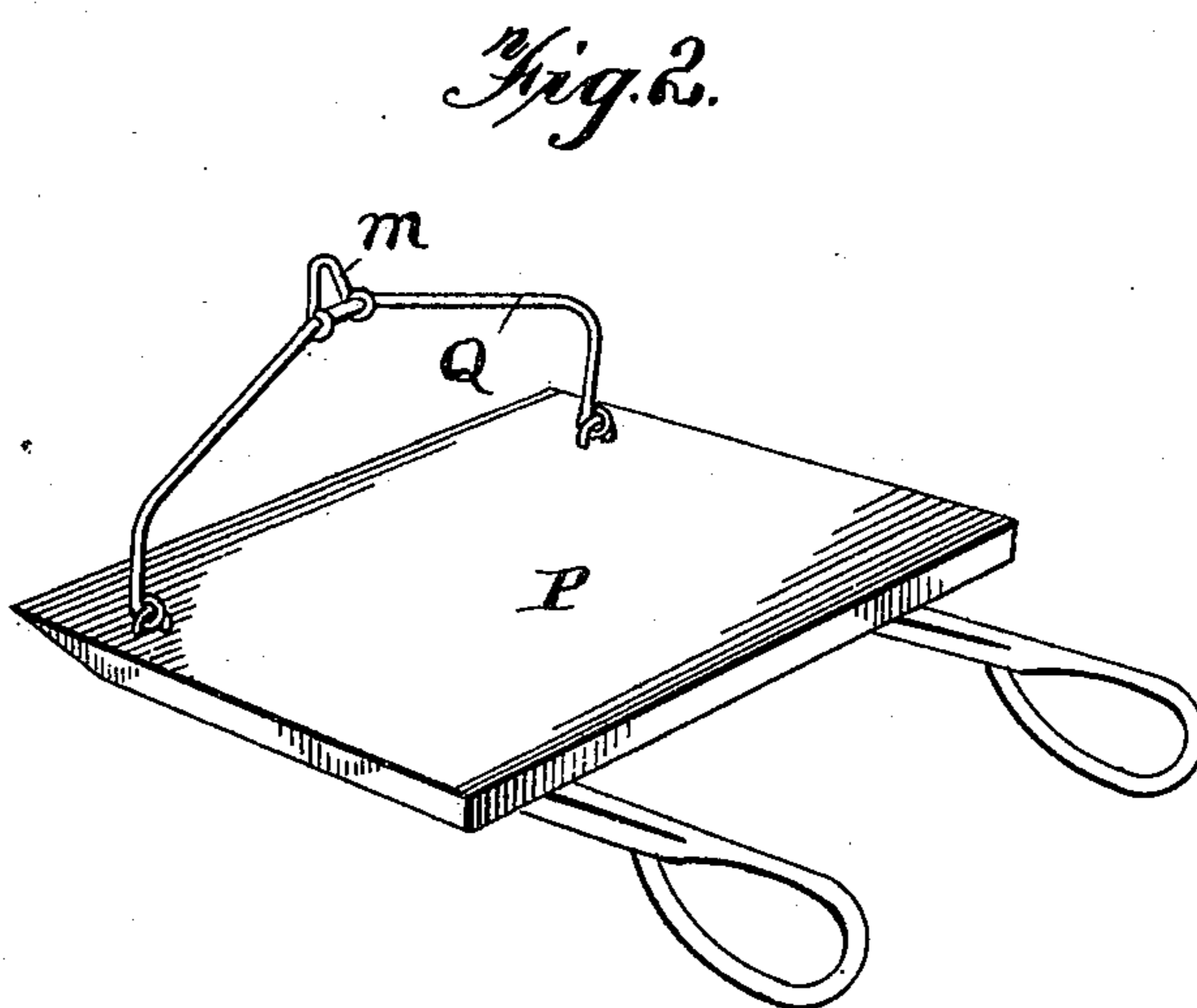
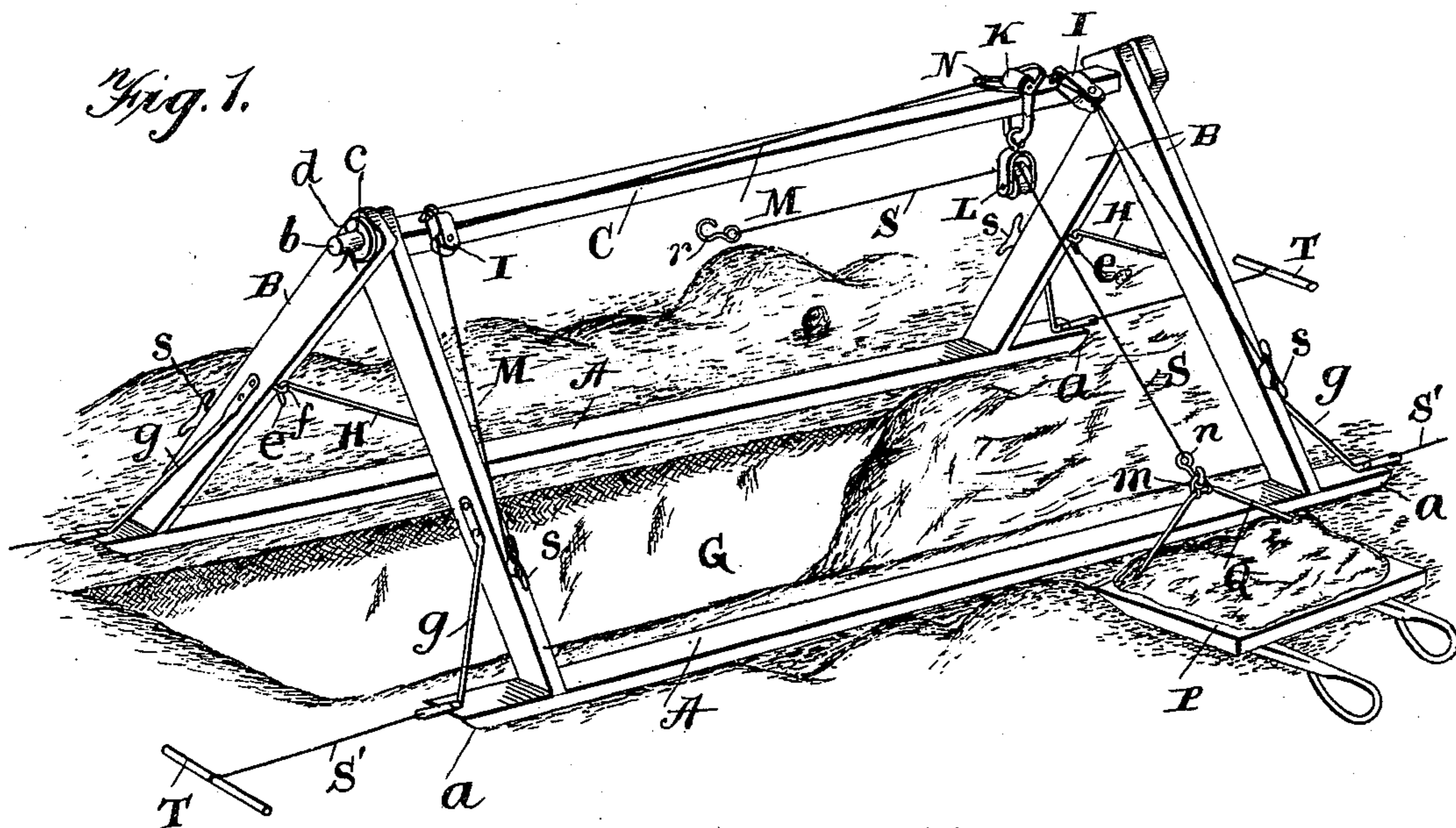
Patented Mar. 20, 1900.

W. G. DUNGEY.

DITCH OR PIT FILLING MACHINE.

(Application filed Nov. 2, 1899.)

(No Model.)



Witnesses

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DITCH OR PIT FILLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 645,794, dated March 20, 1900.

Application filed November 2, 1899. Serial No. 735,599. (No model.)

To all whom it may concern:

Be it known that I, WALTER G. DUNGEY, a citizen of the United States, residing at Hemlock, in the county of Saginaw and State of Michigan, have invented new and useful Improvements in Ditch or Pit Filling Machines, of which the following is a specification.

My invention relates to improvements in an apparatus for filling in ditches and pits, and pertains to an apparatus especially constructed to be folded for convenient transportation and to be slid along parallel the ditch being filled, all of which will be fully described hereinafter and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of an apparatus embodying my invention, showing the same in position over a ditch which is to be filled. Fig. 2 is a detached perspective view of the scraper used in connection with the apparatus. Fig. 3 is a view showing the apparatus closed for transportation.

Referring now to the drawings, A indicates supporting runner-beams having their ends cut away, as illustrated at *a*, adapting them to be drawn longitudinally in either direction for a purpose which will be described hereinafter. Projecting from these runners A and extending inwardly at an angle in opposite directions are the inclined standards B. The upper end of each of these standards B is provided with a registering opening adapted to receive the outwardly-projecting pintles *b* of the longitudinally-extending beam C. Surrounding the projecting ends of these pintles *b* are preferably washers *c*, and passing through the ends of the pintles outside of the washers are suitable keys *d*. The standards B are placed with their upper ends overlapping each other, and the inner one abuts against the shoulders formed at each end of the central beam C, which are constructed in forming the pintles *b*, as will be readily understood. In this manner the essential elements of the machine are held together and hinged, so that they can be closed, as illustrated in Fig. 3, for convenient transportation from place to place.

When the apparatus is set up in position for operation, as illustrated in Fig. 1, the runners A rest at each side of the ditch or pit G which is to be filled, and the standards are

placed in this position and held against relative movement by means of the hooks H or other equivalent mechanical device. When the apparatus is opened outward for use, the hooks H have their hooked ends *e* caught in the eyes *f* of the other standards B, thus serving to hold the standards against relative movement and to firmly support the parts of the apparatus in proper operative position.

Preferably, though not necessarily, the lower ends of the standards B are situated at points inside of the ends of the runners A and are provided with the braces *g*, having their upper ends connected with the standards and projecting outwardly and their lower ends connected with the ends of the runners A. These braces are effective in supporting the standards upon the runners as the machine is being moved along the ditch in the process of operation, as will be fully described hereinafter, and also serve to brace the parts when folded to be transported.

Attached loosely to the beam C at each end and preferably at the upper side are the pulleys I, and a traveling clevis or U-shaped pulley-frame J is provided at its upper end with a wheel or sheave K, adapted to run upon the top of the beam C, and a pulley L is connected to the lower part of the frame by means of a swivel-joint.

The ropes M have their inner ends connected to opposite ends of the frame N, which is connected to the pivotal point of the sheave, and these ropes then pass around the pulleys at opposite ends of the beam, whereby the traveling pulley can be moved in either direction upon the beam C.

P is a scraper having a U-shaped frame Q pivoted thereto, the said frame provided at its center with a draft hook or eye *m*, adapted to receive a hook *n* upon one end of a rope S, the opposite end of the rope S having a similar hook *r* for attachment to a singletree, to which an animal is hitched.

Attached to opposite ends of the runners A are the longitudinally-extending straps, chains, or ropes S', having at their outer ends handles T, by means of which the apparatus can be slid along longitudinally and parallel the ditch or pit being filled.

In operation the traveling pulley is held at one end of the beam C and the scraper P attached to one end of the rope S and the ani-

mal to the opposite end and at the opposite side of the machine. The operator then drags or scrapes the dirt from one side of the apparatus across one of the runners A and into the pit or ditch until it is filled the width of the scraper. The operator then, by means of one of the ropes M, draws the traveling pulley along the beam C a distance equal the width of the scraper, and another portion of the ditch is filled in the same way, the traveling pulley being moved step by step until all of the space between the standards B in the pit has been filled. If the ditch or pit being operated upon is a wide one and is not filled from side to side by this operation, the operator takes the scraper to the opposite side of the ditch, and the animal is transferred also to the opposite side of the ditch before occupied by him, and the same method is pursued in filling the opposite side of the ditch or pit until the space between the two runners A and the ditch is entirely filled. This being accomplished, the apparatus is drawn longitudinally and parallel the ditch in either direction desired by means of the handles and the straps attached to the ends of the runners A and is moved a distance equal to the space between the standards B, and then the operation of filling the ditch before described is repeated.

By means of an apparatus of this character I am enabled to readily and easily draw the apparatus along the ditch as required for filling it step by step and to move the traveling pulley along the beam C for filling the space between the standards step by step, as described.

The standards B will preferably be provided with cleats s, whereby the ropes M can be attached for supporting the traveling pulley firmly in its adjusted position.

The object in having the pulleys I attached to the top of the beam C is to make them reversible, so that they can be worked from opposite sides of the beam C for drawing the traveling pulley along for the purpose and in the manner before described. It will thus be seen that I have provided reversible pulleys at each end of the beam C and a reversible pulley connected with the traveling pulley or sheave frame, whereby the apparatus is adapted to be operated from either side for the purpose herein set forth.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A ditch or pit filling apparatus comprising two longitudinal and parallel runners adapted to be placed at opposite sides of a ditch or pit, inwardly-extending standards having their upper ends in a vertical line over the said ditch or pit, a beam connected to the upper ends of the said standards and extending longitudinally of the said runners, a pulley or rope-guide longitudinally movable upon the said beam, and means operatively connected at the ends of said beam for moving the

rope-guide or pulley upon the beam and holding it in its adjusted position, substantially as described.

2. A ditch or pit filling machine comprising two longitudinal and parallel extending runners adapted to be placed at opposite sides of a ditch or pit, inwardly and upwardly extending standards at the ends of said runners, a beam connecting the upper ends of the standards and extending longitudinally of the said runners and situated in a vertical line above the ditch or pit, a rope-guide or pulley longitudinally movable upon the said beam, a rope passing through the said guide or pulley and extending across the said ditch, a scraper connected with one end of the rope, the opposite end of the rope adapted to be drawn in a direction transverse the ditch for pulling the scraper thereover, rope-guides at opposite ends of the beam, ropes passing through the said guides and having their ends connected with the longitudinally-movable pulley or rope-guide, the parts adapted to operate substantially as described.

3. An apparatus for filling pits or ditches comprising standards having at their lower ends bases adapted to rest at opposite sides of a pit or ditch, the standards extending upwardly and inwardly over the said ditch or pit, a longitudinally-extending beam having its ends connected with the upper ends of the said standards, a traveling pulley or guide frame supported upon said beam, rope-guides loosely connected at opposite ends of the said beam and adapted to extend at either side thereof, ropes passing through the said rope-guides and having their ends connected respectively with the traveling guide or pulley whereby the pulley-frame can be drawn to any desired position upon the beam, substantially as described.

4. An apparatus for filling ditches or pits comprising standards having at their lower ends bases adapted to rest at opposite sides of the pit or ditch, the said standards extending upwardly and inwardly over the ditch or pit, a longitudinally-extending beam connected to the upper ends of the said standards, a traveling-pulley frame supported upon said beam, reversible pulleys at opposite ends of the said beam, ropes passing through the said pulleys and connected at their inner ends to the said pulley-frame, a reversible pulley connected with the traveling-pulley frame, a rope passing over the said pulley and having at each end a hook, a scraper adapted to be connected to the hook at one end of the rope and the opposite end of the rope adapted to be connected with a singletree, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WALTER G. DUNGEY.

Witnesses:

FRANK J. STAPLETON,
PHILO M. THOMAS.