(No Model.)

R. O. CAMPBELL.

BAG FILLER.

No. 591,381. Patented Oct. 12, 1897

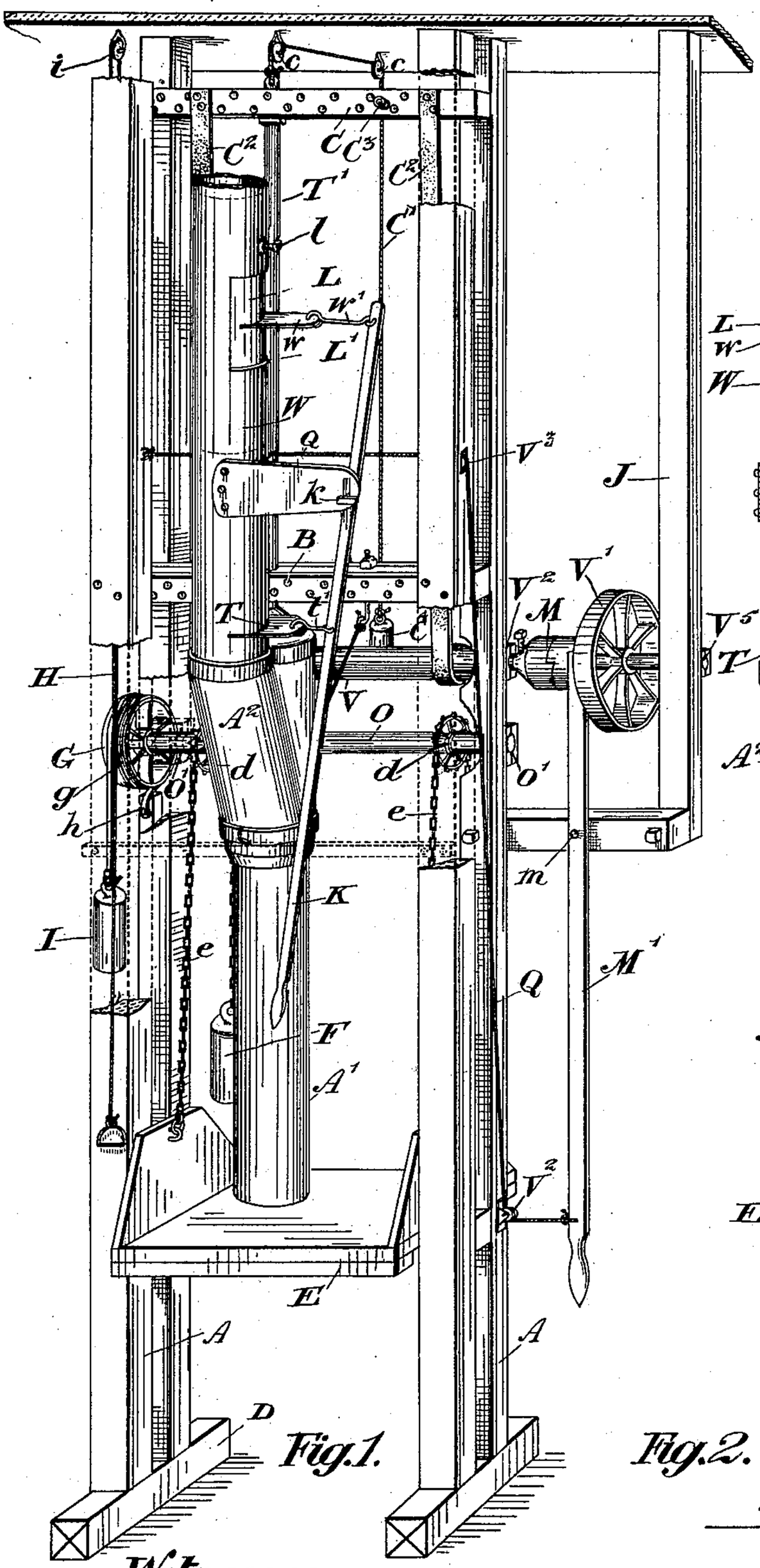

Fig. 1.

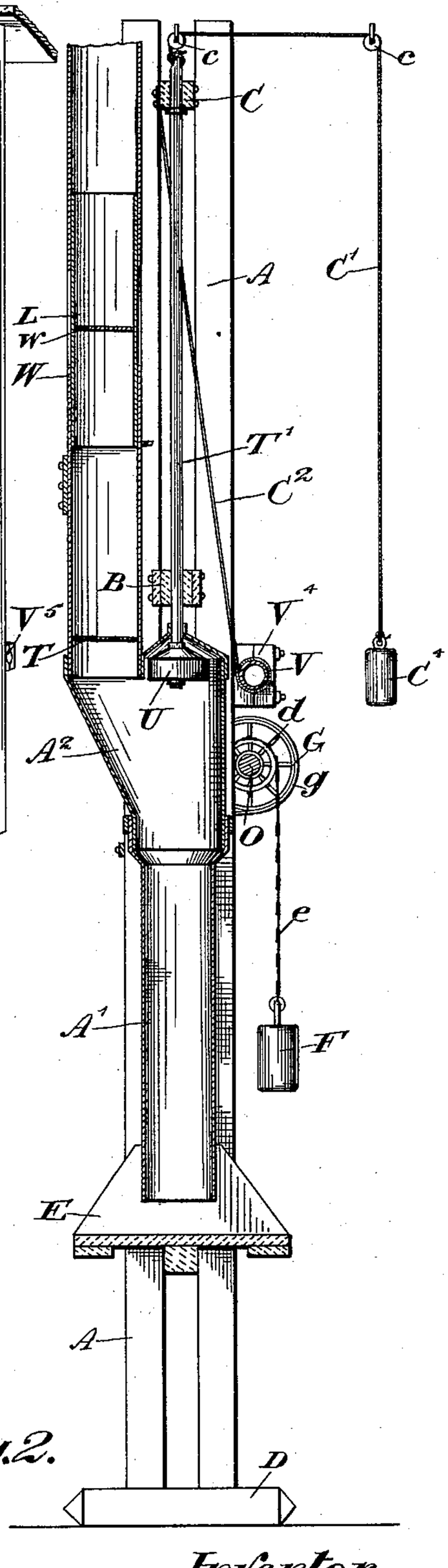

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

ROBERT ORD CAMPBELL, OF VICTORIA, CANADA.

BAG-FILLER.

SPECIFICATION forming part of Letters Patent No. 591,381, dated October 12, 1897.

Application filed November 12, 1896. Serial No. 611,836. (No model.) Patented in Canada May 18, 1896, No. 52,300.

To all whom it may concern:

Be it known that I, ROBERT ORD CAMPBELL, of the town of Victoria, Province of British Columbia, in the Dominion of Canada, have invented certain new and useful Improvements in Bag-Fillers, (patented in Canada May 18, 1896, No. 52,300,) of which the following is a specification.

My invention relates to improvements in bag-fillers; and the object of the invention is to provide a simply-operated form of mechanism whereby the bags or sacks may be adjusted and held in position, so that any desired measured quantity may be placed in them automatically, and also to provide for their ready removal; and it consists, essentially, of a vertically-moving table designed to hold the bag, feeding-tube, and the coöperating mechanism used in connection therewith, as hereinafter more particularly explained.

Figure 1 is a perspective view of my machine with parts broken away to exhibit the construction. Fig. 2 is a vertical section of the machine.

In the drawings like letters of reference indicate corresponding parts in each figure.

A A are two pairs of parallel upright posts, which form the main frame of the machine and are suitably supported upon bed-pieces D. The posts A A extend from the bed-pieces up to the ceiling and are midway supported by the cross-piece B.

C is a bar sliding between the uprights A A. To this bar is suitably fastened one end of the straps or belts C^2, the other ends of which are fastened to the shaft V.

J is a support for the main driving-shaft.

E is a horizontal table which rises and falls between the guide-posts A A and is held in position by counterbalancing-weights F, which are connected to the table E by sprocket-chains *e e*, passing over sprocket-wheels *d d*, journaled on the shaft O, which is suitably journaled on the side of the machine at O′ O′.

G is a pulley journaled on the shaft O. Around the pulley G is wound a steel band *g*, one end of which is suitably fastened to the frame of the machine at *h*. Attached to the other end is a weight I. The pulley G thus arranged acts as a brake.

Attached to the weight I is a rope H, which passes over a pulley *i* at the top of the machine and down to within easy reaching distance of an attendant.

A′ is a tube or cylinder from which the bags are filled. At the upper end of the tube or cylinder A′ is a tapering guide-box A^2, into which is discharged the quantity to fill the bag.

W is the tube, leading from the hopper or other suitable source of supply into the guide-box A^2.

L is a tube sliding within the tube W, which has a longitudinal opening L′.

w is a cut-off entering tube L horizontally through the opening L′, and is connected by a rod *w′* to the lever K, which is fulcrumed at *k*.

The tube L regulates the quantity of material used at a time by being placed higher or lower, as the case may be, in the tube W, and is held in position by the set-screw *l*.

T is a cut-off entering the tube W at its lower end, and is connected to the lever K by the rod *t′*.

T′ is a rod journaled in bearings on cross-bar B and sliding bar C, and on the end of this rod is fastened a packing-plunger U.

V′ is the drive-pulley, journaled on the shaft V, which is suitably journaled at V^2, V^4, and V^5.

M is a clutch which is operated by the lever M′, which is fulcrumed at *m*.

C′ is a rope fastened to the top of the rod T′ and passing over the pulleys *c c*. At the end of this rope is suspended the weight C^4.

Q is a trip-rope fastened at the lower end of the lever M′. Passing under the pulley V^2 it goes up and passes through one of the uprights A, over a pulley V^3, and is suitably fastened at the other side of the machine.

C^3 is a roller fastened on one side of the sliding bar C.

Having now described the principal parts involved in my invention, I shall describe its operation.

The material is introduced by a hopper, or in any other suitable manner, into the tube

or cylinder W. The cut-off *w* is then opened, and this allows the material to drop down to the cut-off T, which is closed. The cut-off T is then opened and the material falls into the bag.

At each discharge into the bag the clutch M is thrown into gear by the lever M′, and the packing-plunger U is pulled down by the straps or belts C^2, winding on the enlarged part of the shaft V, and packs the material into the bag, also forcing the table E down to allow the bag to be taken off.

At the same time the sliding bar C is pulled down the roller C′ presses on the rope Q, and thereby pulls the clutch M out of gear. This allows the weight C^4 to descend and pull the plunger U back into position. When the full bag is taken off, another is placed in position to be filled, and the table E is raised into position again by taking off the brake G, by pulling on the rope H, and thereby raising the weight I. This loosens the coil of steel wound around the pulley G. This allows the weights F to descend and raise the table.

It will thus be seen that I provide a very economical and easily-operated machine, and it requires a minimum amount of power to run it.

It will also be seen that the bag is easily adjusted, held in any desired position, the material so measured that waste is prevented, and the thorough packing of such material is also provided.

What I claim is—

1. In a bag-filler in combination the table, the feeding-tube, a cut-off permanently located therein, an adjustable tube fitted within the feed-tube intermediately of the length thereof and supported wholly thereby, and a second cut-off carried by said adjustable tube, substantially as described.

2. In a bag-filler the combination with the vertically-adjustable table supported between suitable upright posts and brake for holding same in any desired position of the feeding-tube containing an adjustable inner tube and the upper and lower cut-offs extending into the tube and operated by a lever the lower end of which is convenient to the attendant an intermediate enlargement of the tube, and a plunger designed to extend over the lower portion of the tube, a supporting-rod for such plunger held in suitable bearings and supported by a counterbalancing-weight, belts connected to a sliding bar and wound upon the counter-shaft of the machine, a suitable clutch on the main driving-shaft a hand-lever pivoted in the frame and connected by a rope Q, extending across the machine as indicated, and a roller on the sliding bar C, designed to engage with the horizontal portion of the rope Q, as and for the purpose specified.

ROBERT ORD CAMPBELL.

Witnesses:

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