

No. 765,668.

PATENTED JULY 26, 1904.

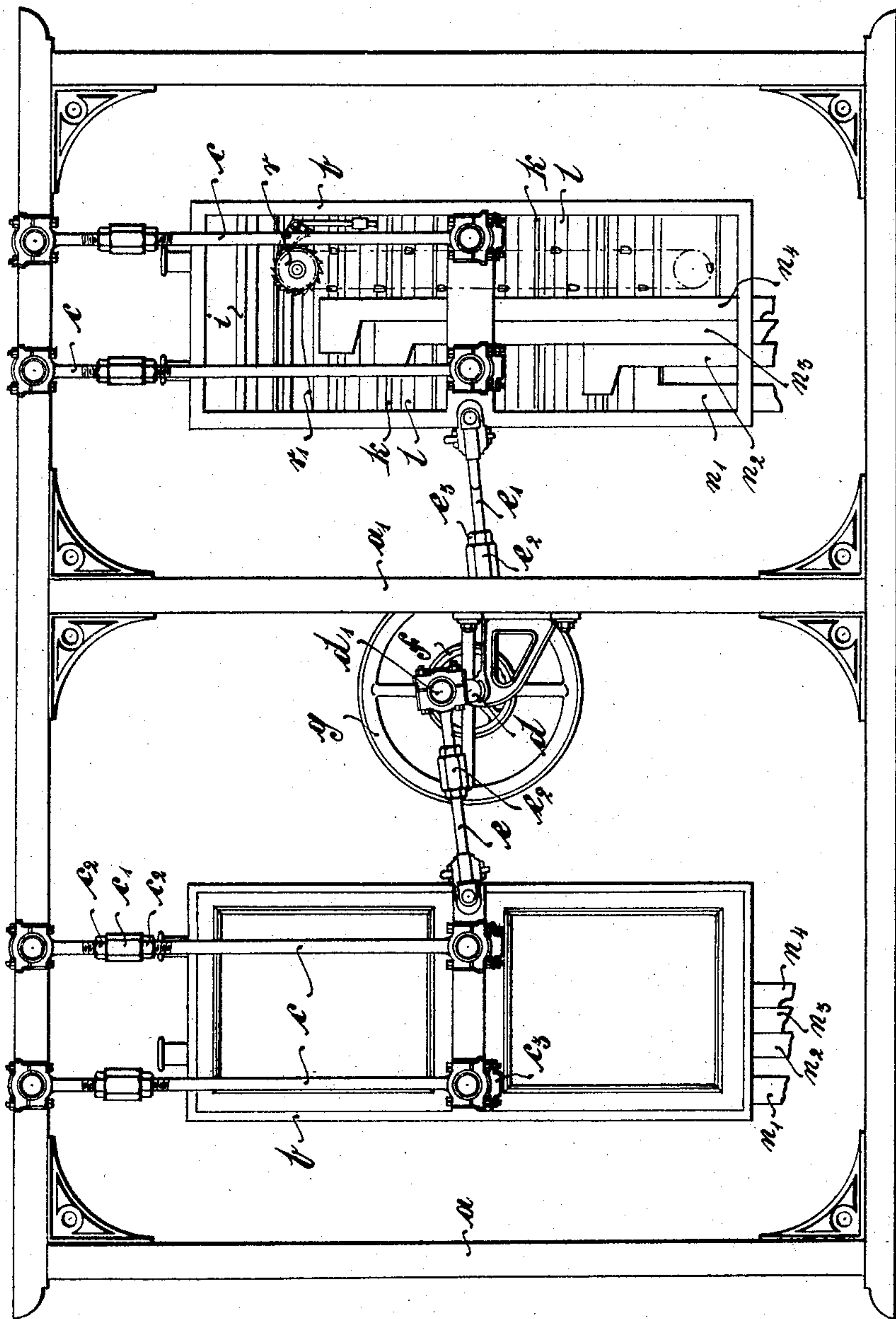
A. KLEIN.
BOLTING OR SIFTING MACHINE.

APPLICATION FILED JAN. 27, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1



WITNESSES:

Paul Lomax.
Harry Michel.

INVENTOR:

Albert Klein

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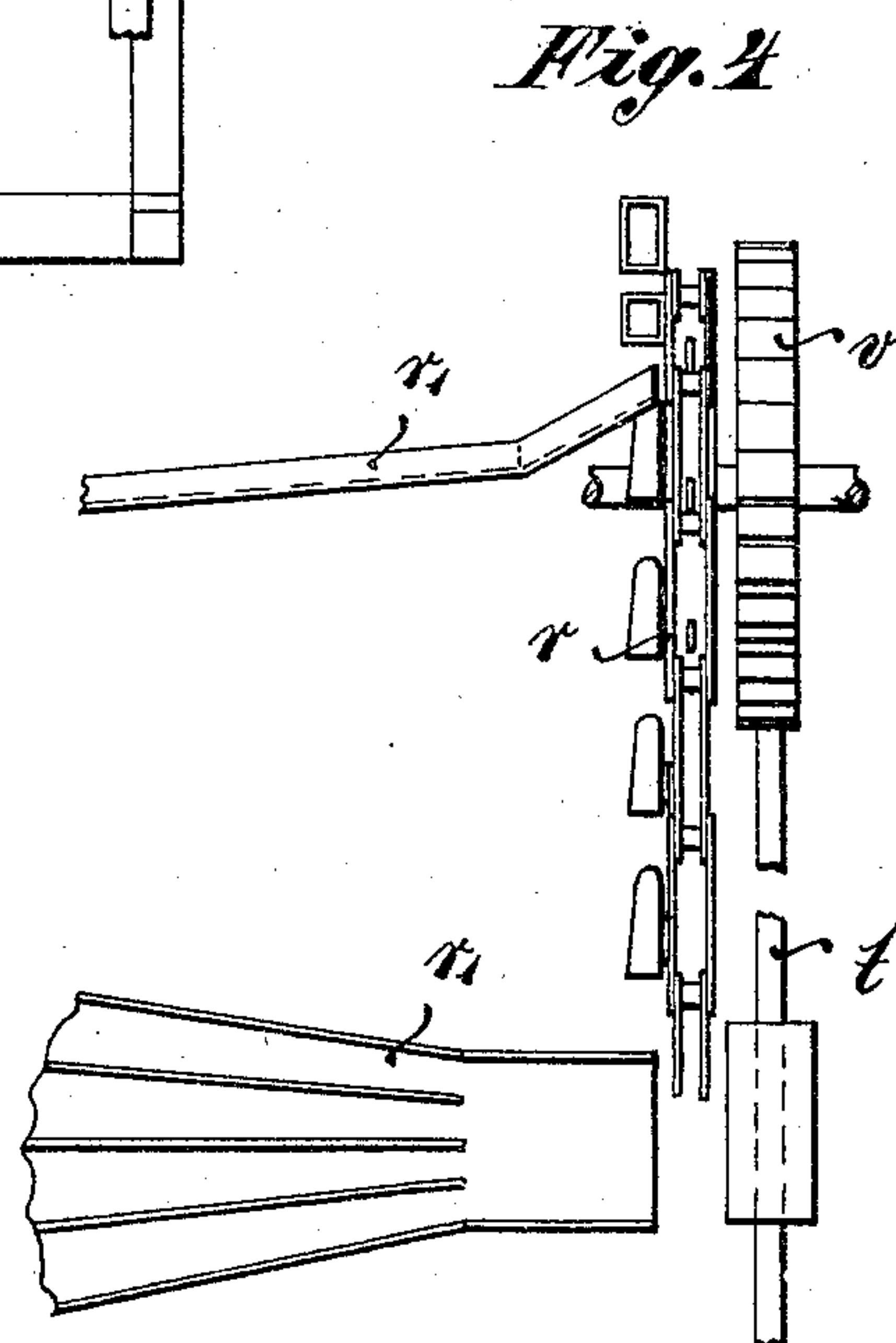
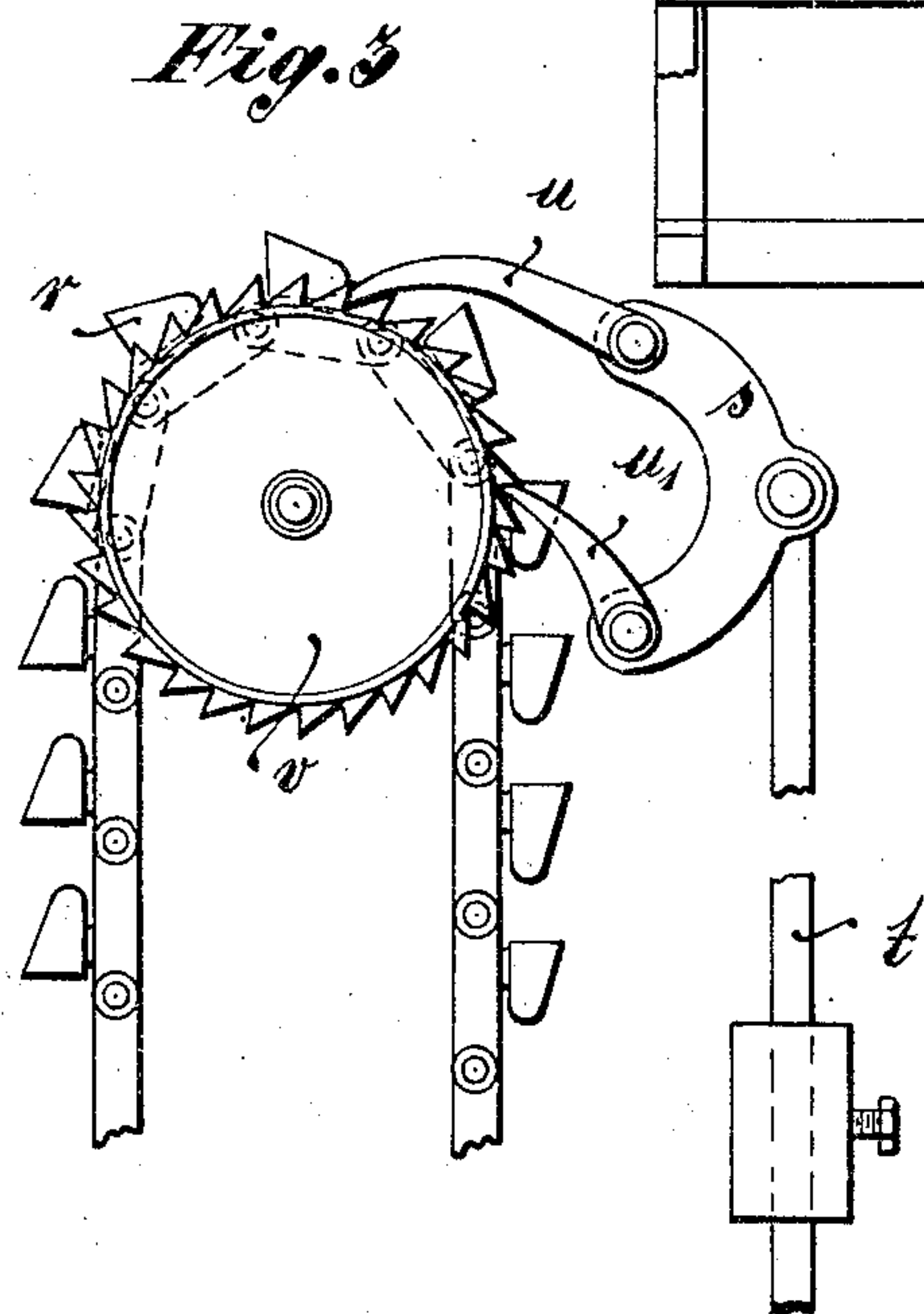
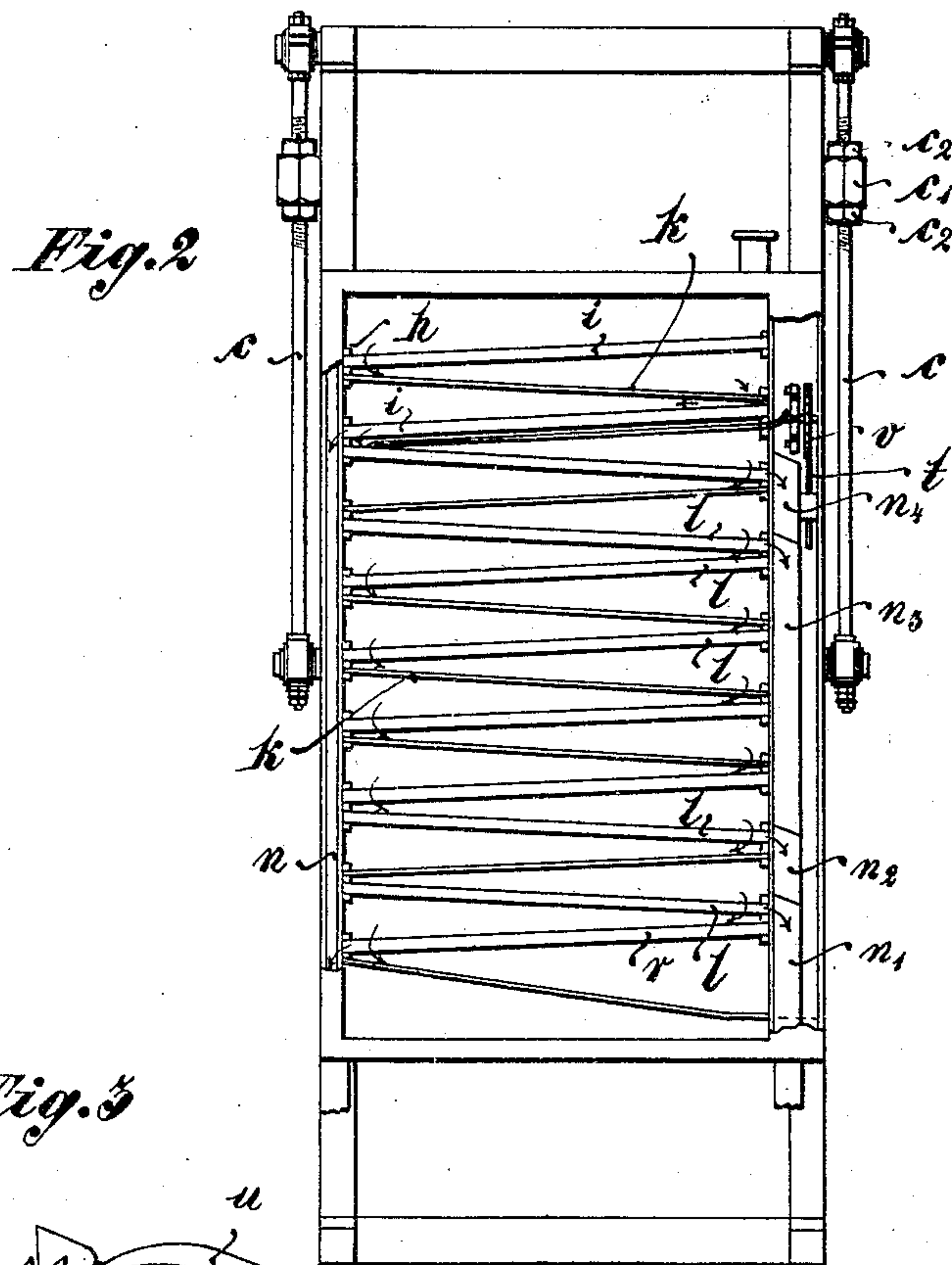
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UNITED STATES PATENT OFFICE.

ALBERT KLEIN, OF PITESTI, ROUMANIA.

BOLTING OR SIFTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 765,668, dated July 26, 1904.

Application filed January 27, 1904. Serial No. 190,868. (No model.)

To all whom it may concern:

Be it known that I, ALBERT KLEIN, master miller, residing at Pitesti, in the Kingdom of Roumania, have invented certain new and useful Improvements in Bolting or Sifting Machines, of which the following is a specification.

This invention relates to improvements in bolting or sifting machines provided with flat sieves adapted to swing in horizontal planes; and my improvements consist in means for reconveying the cleaning material, so as to cause it to circulate automatically through the machine.

In the accompanying drawings, Figure 1 is a side view of my improved machine, partly in elevation. Fig. 2 is an end view of the same. Fig. 3 is a side view of the upper part of the conveyer, and Fig. 4 is a front view of the parts shown in Fig. 3.

The sifting-boxes *b*, the sides of which are provided with doors, are suspended by rods *c* from a frame *a*, the length of said rods being adjustable by means of screw-threaded sleeves *c'* and counter-nuts *c''*. The rods *c* consist, preferably, of tubes, so that the lower bearings receive oil from the upper ones through the said rods. The surplus of oil is caught up by cups *c''*, provided at the lower bearings.

The oscillatory movement of the sifting-boxes is brought about in known manner by cranks *d'* and connecting-rods *e e'*, the cranks forming parts of a shaft *d*, furnished with a pulley *f* and a fly-wheel *g*. Also the length of the connecting-rods *e e'* may be changed or adjusted by means of screw-threaded sleeves *e''* and counter-nuts *e'''*.

The sifting-frames proper and the intermediate conveying-bottoms are not placed or put one upon the other; but they are held by and between pairs of ledges *h*, secured to the walls of the boxes *b*, so that each sifting-frame, with its sieve, and each bottom may be removed separately. The meshes of the sieves correspond, of course, to the kind of material to be treated. In the form of construction shown there are two upper shot-sorters *i i*, and below them are some flour-sorters *l*, all these sorters or sieves, as well

as the intermediate conveying-bottoms, being inclined in a direction lying about at right angles to the direction of the oscillatory motion of the boxes. *r* is the lowest sieve, the meshes of which are such that only the cleaning material—generally wheat—is retained, which then gets to the lowest bottom *k*. To reconvey the cleaning material from this bottom to the uppermost sieve, I have provided automatic means consisting of an adjustable weighted pendulum *t*, Figs. 3 and 4, a double-armed lever *s*, rigidly connected with said pendulum, pawls *u u'*, attached to the arms of said lever, a ratchet-wheel intermittently rotated by said pawls at each oscillation of the pendulum, and an elevator driven by said ratchet-wheel. The position of these parts with respect to the box *b* is shown in Figs. 1 and 2. When the box is oscillated by the parts *d' e* or *d' e'*, also the pendulum *t* commences to oscillate and continues to do so, so that pawls *u u'* operate the ratchet-wheel and the elevator during the whole time of work. The elevator carries the cleaning material upward and throws it upon a trough *r'*, which is preferably divided in as many parts as there are separate sieves to be provided with said material. If there are in a box two or more separate sets of sieves and bottoms located either one above the other or side by side, there are also two or more—i. e., a corresponding number—of the conveying means described.

I am aware of the fact that the elevator *per se* is known, and I therefore do not claim the arrangement broadly; but

What I claim is—

1. In a bolting or sifting machine having flat sieves adapted to oscillate in horizontal planes, the combination, with the sieve-frames and the intermediate conveying-bottoms, of an elevator adapted to be actuated automatically by reason of the oscillatory movement of the sifting-box containing said sieves and bottoms; a pendulum forming the means for transmitting said oscillatory movement to said elevator, substantially as described and shown and for the purpose set forth.

2. In a bolting or sifting machine having flat sieves adapted to oscillate in horizontal planes the combination with the sieve-frames and

the intermediate conveying bottoms, of a
weighted pendulum carried by the sifting-box
containing said sieves and bottoms; a double-
armed lever rigidly connected with said pen-
dulum; pawls attached to the arms of said
5 lever, a ratchet-wheel adapted to be intermit-
tently actuated by said pawls, and an elevator
connected with said ratchet-wheel; said eleva-
tor being so arranged as to be adapted to re-

convey the cleaning material from below to 10
above, substantially as described and shown
and for the purpose set forth.

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

ALBERT KLEIN.

Witnesses:

J. HAFFNER,

WILHELM RENNER.