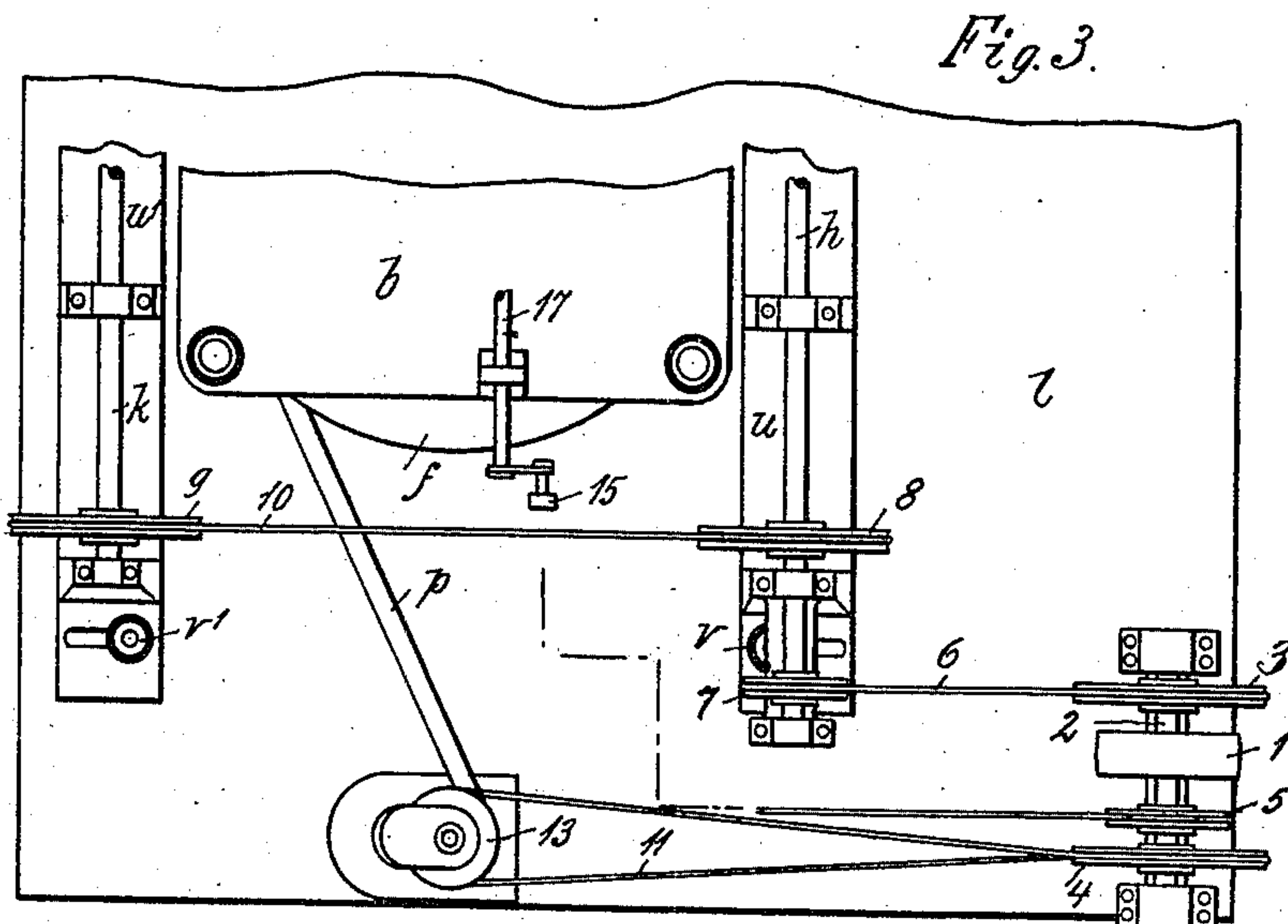
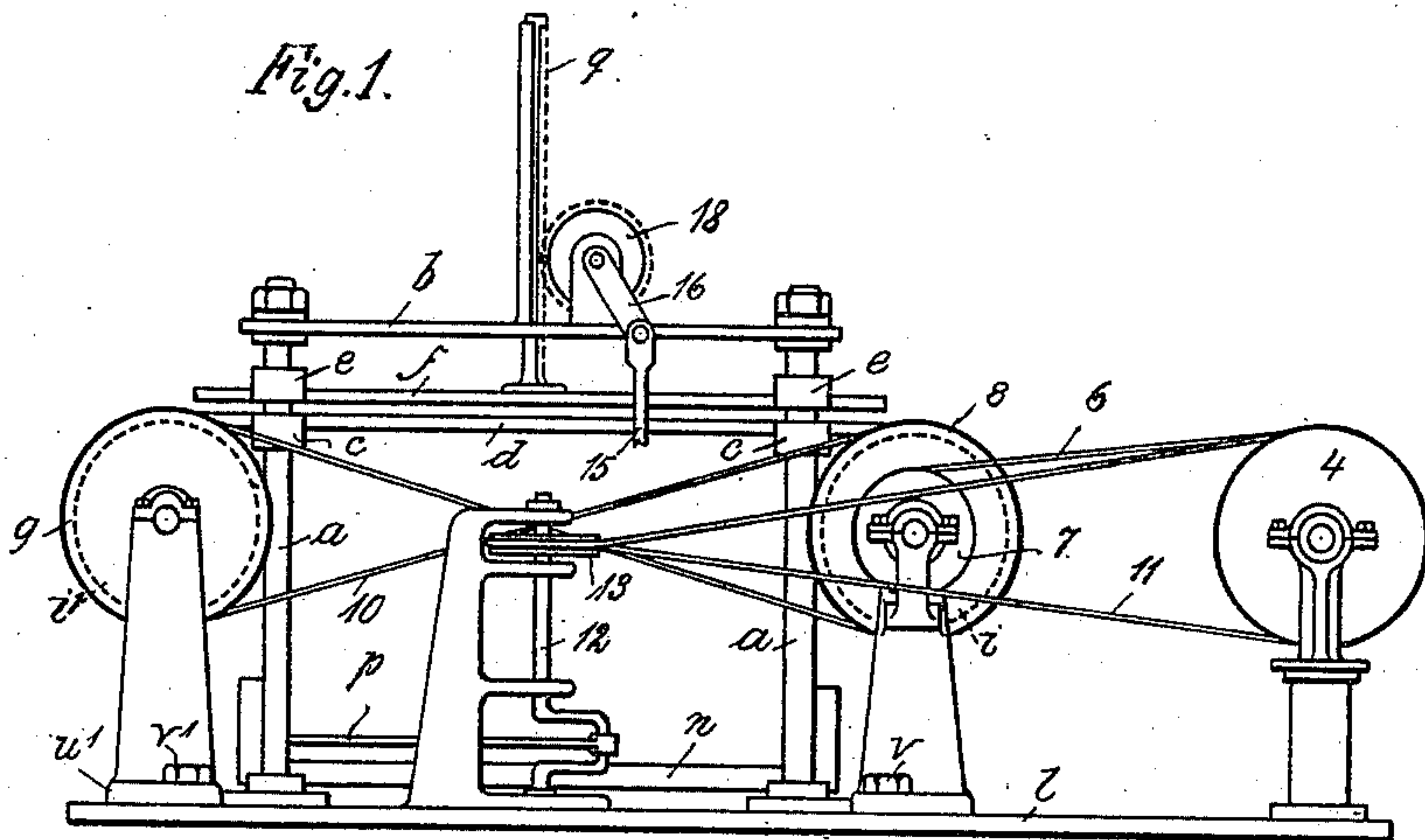


F. ARLT.
MACHINE FOR NOTCHING LIDS OR COVERS FOR TUBS OR BUCKETS.
APPLICATION FILED AUG. 25, 1910.

989,753.

Patented Apr. 18, 1911.
2 SHEETS—SHEET 1.



Witnesses:
Upshaw
John W. Hutz

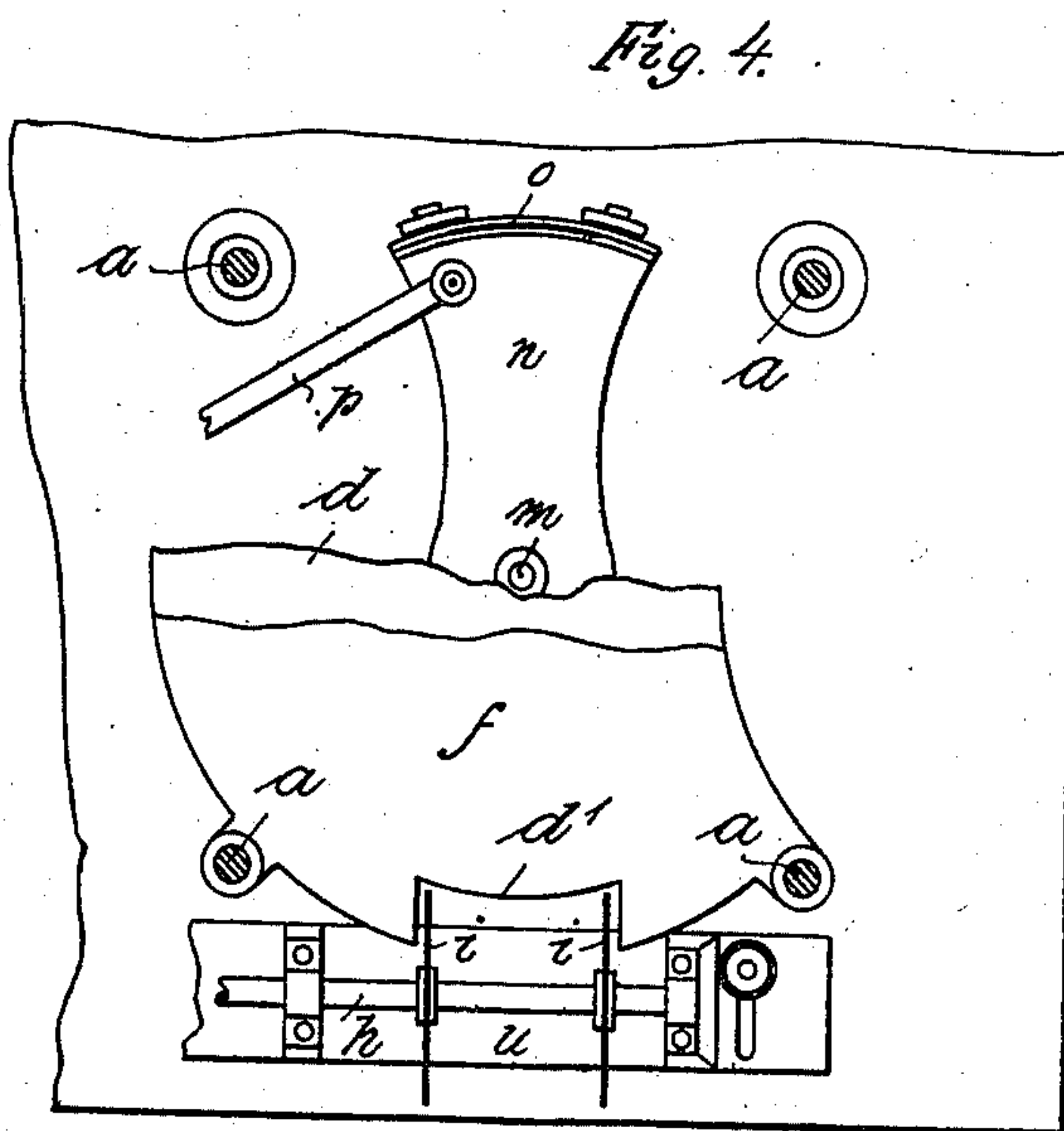
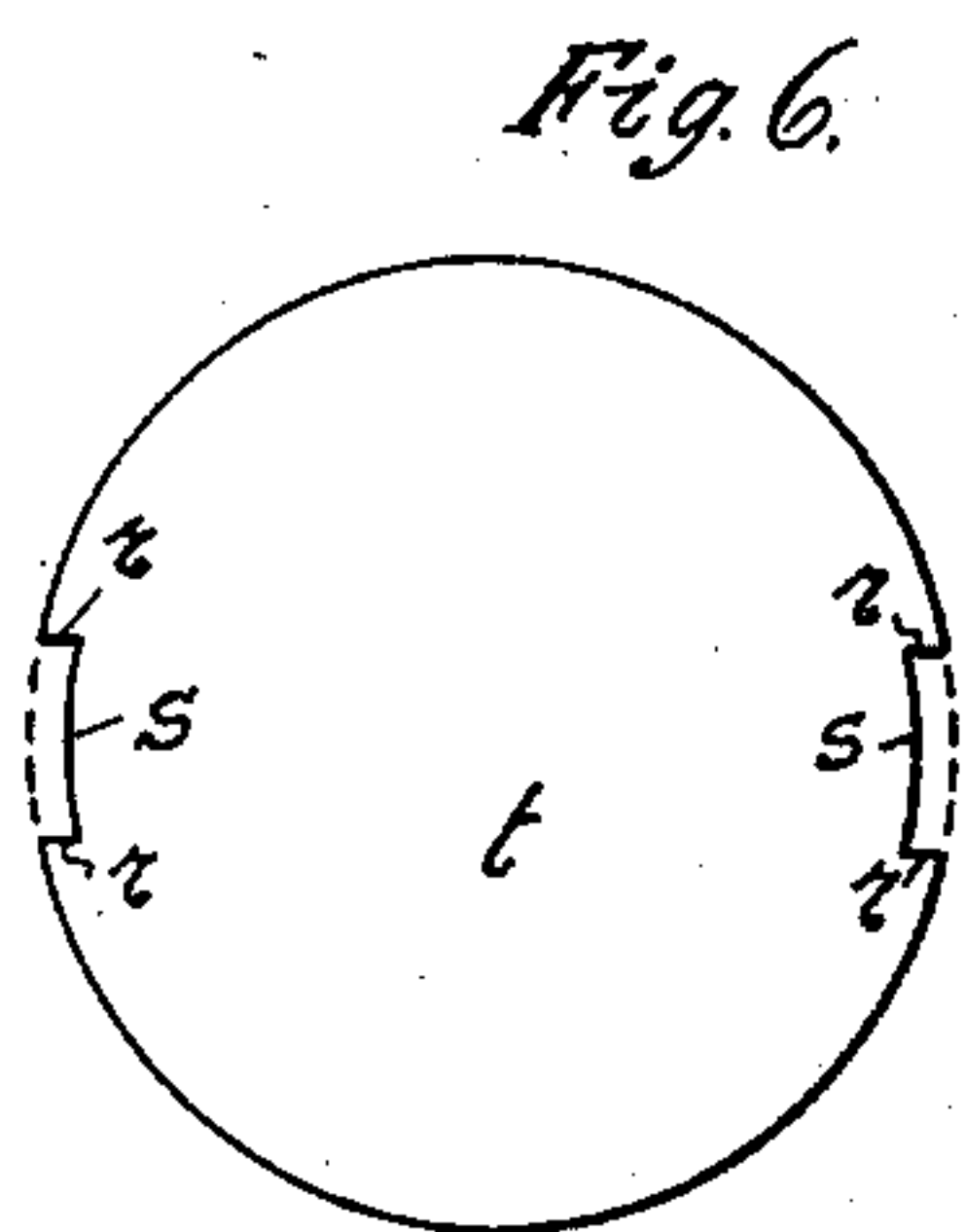
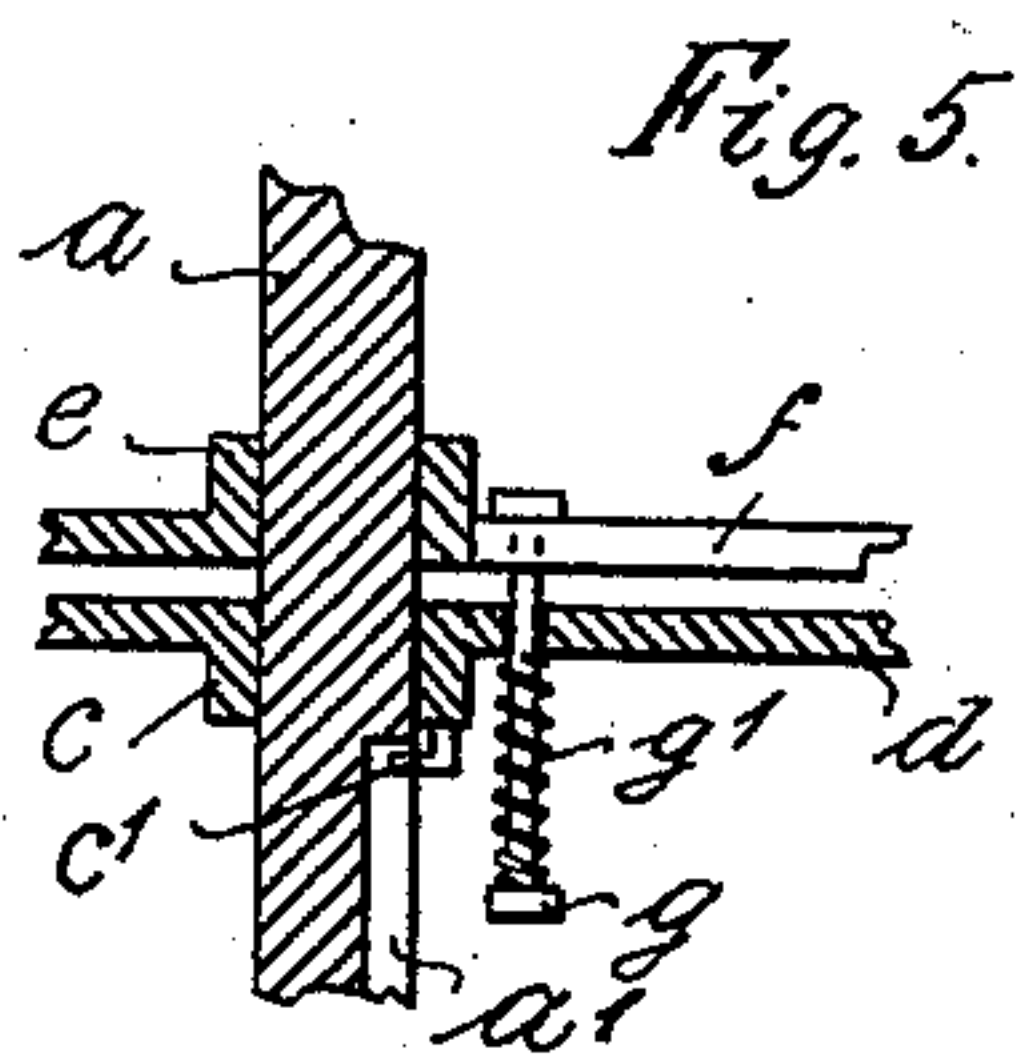
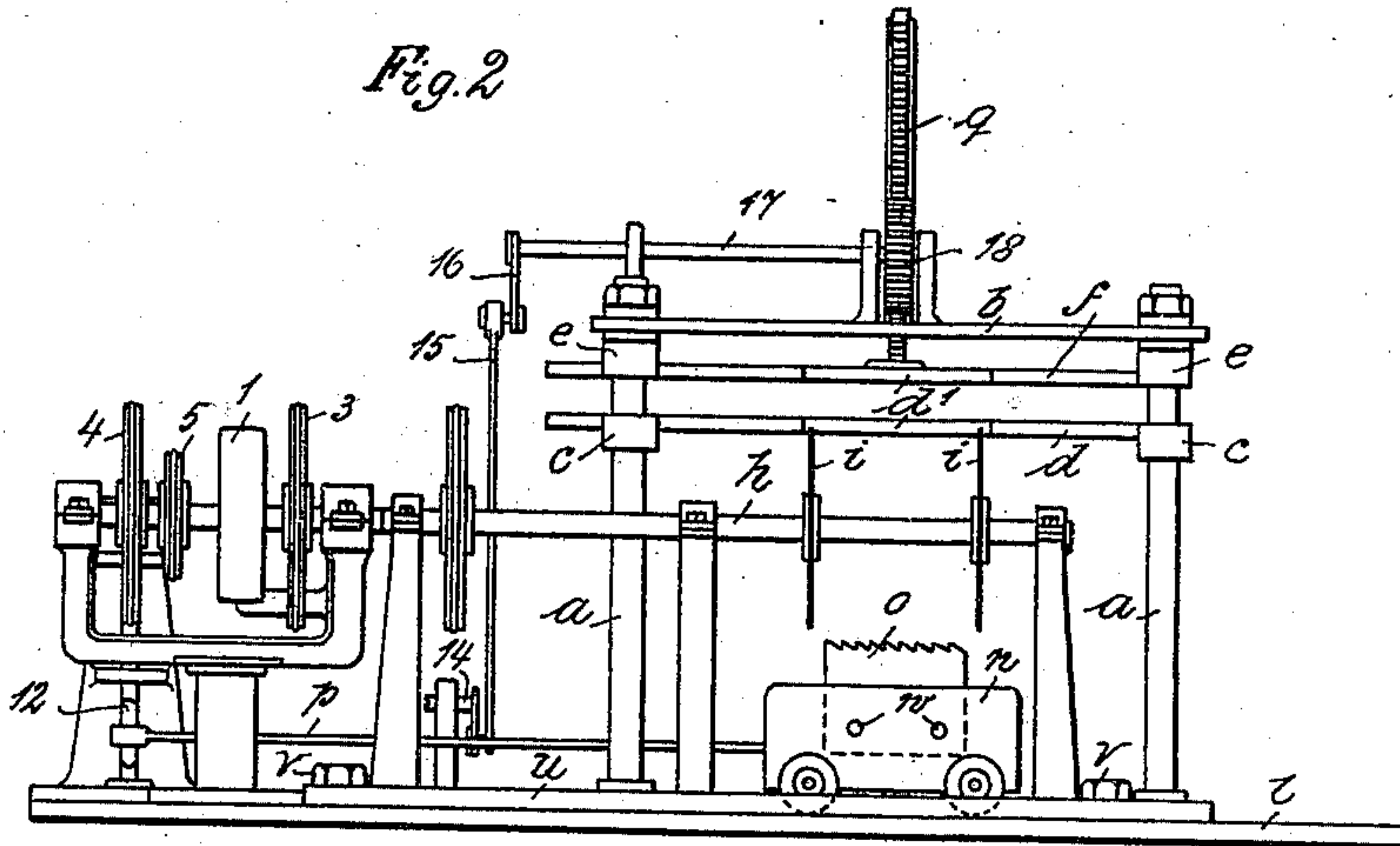
Inventor.
Fritz Arlt

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2 SHEETS-SHEET 2.



Witnesses:
Lyman
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UNITED STATES PATENT OFFICE.

FRANZ ARLT, OF LÜBECK, GERMANY.

MACHINE FOR NOTCHING LIDS OR COVERS FOR TUBS OR BUCKETS.

989,753.

Specification of Letters Patent.

Patented Apr. 18, 1911.

Application filed August 25, 1910. Serial No. 578,859.

To all whom it may concern:

Be it known that I, FRANZ ARLT, subject of the Emperor of Germany, residing at Parade No. 8, in Lübeck, Germany, have invented certain new and useful Improvements in Machines for Notching Lids or Covers for Tubs or Buckets, &c., of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to machines for notching lids or covers for tubs or buckets etc., has for its object economy in time and labor, and the invention consists in certain improvements in construction which will be fully disclosed in the following specification and claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a side elevation of a machine embodying my invention, Fig. 2 is a front elevation of the same, Figs. 3 and 4 are plan views, Fig. 5 is an enlarged detail of the guiding mechanism for the cover to be operated upon, and Fig. 6 is a plan view of a cover on a reduced scale.

Reference being had to the drawings and the designating characters thereon, the letter *a* indicates columns which are connected by a plate *b*, and on the columns are plates *d* and *f* which are provided with openings *d'* corresponding with the notches to be cut in the covers. The plates *d* and *f* are slidably mounted on the columns *a* by means of collars *c* and *e* respectively.

The columns *a* are provided with vertical grooves *a'* into which hooks *c'* connected to the collars *e* protrude to arrest the upward movement of the plate *d*. The plate *f* is connected to the plate *g* by means of a spring actuated bolt *g'*. In front of the openings *d'* in the plates *d* and *f*, on the shafts *h* and *k* respectively, two circular saws *i* and *i'* are mounted. On the base-plate *l* is a carriage *n*, which can rotate around its central axis *m*, and carries two bow saws *o*, *o'*.

By the rotation of the pulley 3 through the belt 6 and the pulley 7 upon the shaft *h*, the circular saws *i* are put in motion and at the same time, by means of the pulleys 8 and 9 and the bolt 10 the circular saws *i'* are actuated.

The motion of the pulley 4 is transmitted through the belt 11 to the pulley 13 which is fixed to the crank shaft 12, whereby, by

means of the thrust shaft *p* which is connected at one end with the crank shaft 12 and at the other with the carriage *n*, the carriage *n* receives its short oscillatory movement around its axis. The pulley 5 communicates in the proper manner with the crank shaft 14 which latter imparts through its movement and by means of the rod 15 an oscillatory movement to the crank 16. The crank 16 is attached to the shaft 17, to which also is keyed the gear-wheel 18 which engages the rack *q* fastened to the plate *f* and protruding through the cover *b* by which the plates *f* and *d* are moved up and down.

The operation of the machine is as follows: While the plate *d* is held by the hooks *c'* at a certain height on the columns *a*, the plate *f* is moved by the spring *g'* toward the plate *b* (Fig. 5). The round cover or lid *t* to be cut, is now inserted between the two plates. By means of the before described mechanism, plate *f* is pressed firmly against the cover *t* resting on the plate *d* (Fig. 1) and moves in connection with the same downward to the rotating circular saws *i* and *i'*, whereby the cover *t* is provided with the transverse cuts *r*. In moving farther downward the cover *t* encounters the suitably bent saws *o*, *o'* of the carriage *n* which is put in short oscillatory movements by the crank shaft 12 and the thrust shaft *p* and makes the arc like cut *s*. After which the plates with the cover move upward and the now ready-cut cover is removed and a new one inserted and the operation repeated.

A partial revolution of the gear 18 serves to move the plates the entire depth of the machine.

The wear on the saws by repeated sharpening of the same can be adjusted by the bolts *v*, *v'*, slidable in slots of the frame *u*, *u'*, and by moving the bow saws upward which can be performed by loosening the screws *w*, *w'*.

The machine is driven by a suitable motor, not shown, connected to a pulley keyed to the shaft 2, and the rotation of said shaft is transmitted to the pulleys 3, 4 and 5.

Having thus fully described my invention, what I claim is:

1. In a machine for notching lids or covers, columns, plates supported thereby, spring-actuated bolts connecting said plates for supporting the cover or lid to be notched, circular saws for making transverse incisions in said cover or lid, and bow saws

mounted in a carriage to make arc-shaped incisions in said cover or lid.

2. In a machine for notching lids or covers, columns provided with vertical grooves, 5 plates movable thereon, means for moving the lower plate upward, hooks engaged in said grooves for limiting the upward movement of the lower plate, a spring-actuated member connecting the upper and lower 10 plates and acting on the upper plate, one of said plates supporting the cover to be operated upon.

3. In a machine for notching lids or covers, columns provided with vertical grooves, 15 plates movable thereon, means for moving

the lower plate upward, hooks engaged in said grooves for limiting the upward movement of the lower plate, a spring-actuated member connecting the upper and lower plates and acting on the upper plate, one of 20 said plates supporting the cover to be operated upon, means for making transverse incisions in the cover, and means for making arc-shaped incisions therein.

In testimony whereof I affix my signature 25 in the presence of two witnesses.

FRANZ ARLT.

Witnesses:

JOHN ALFE,
JAS. WULP.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
