

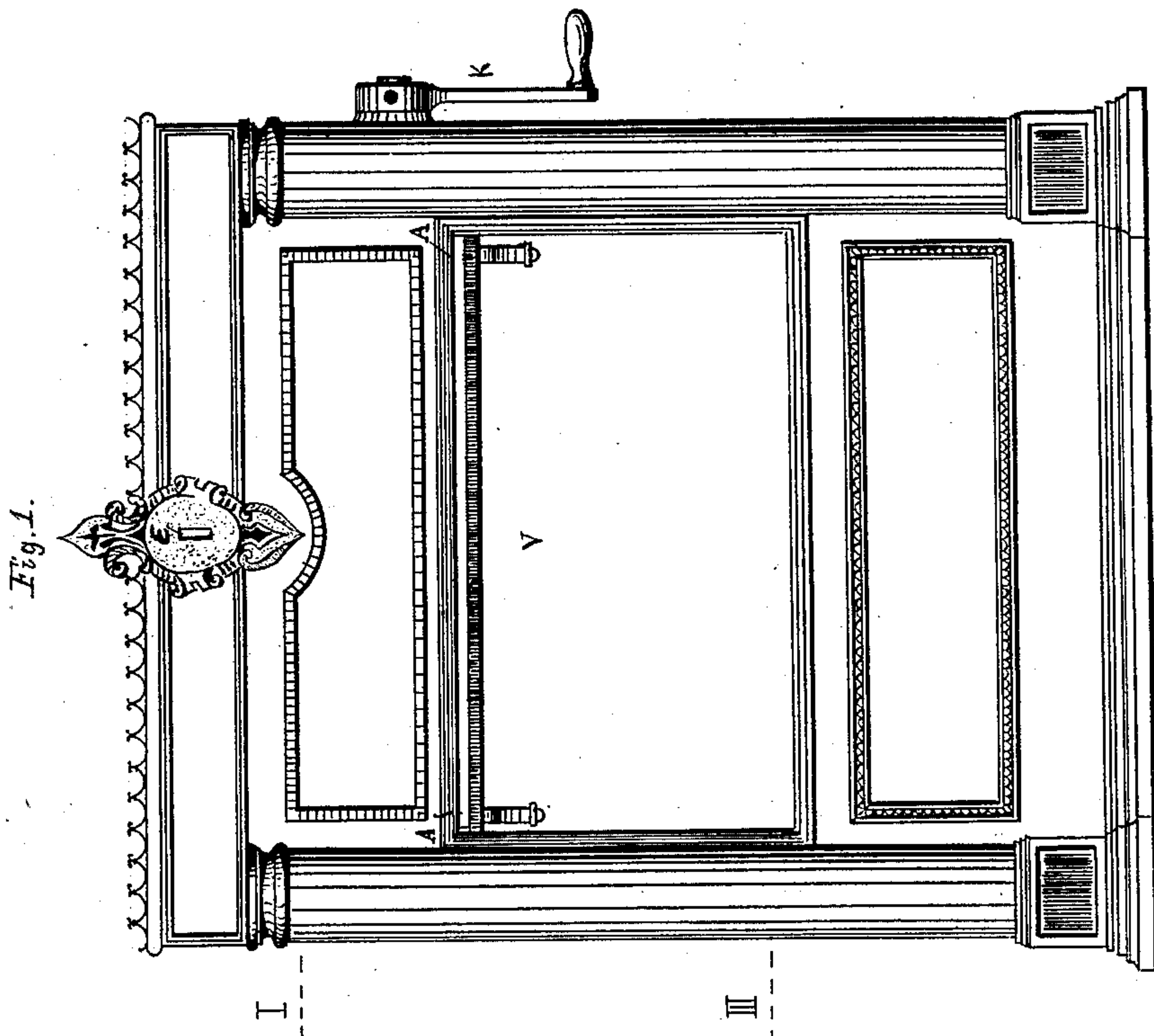
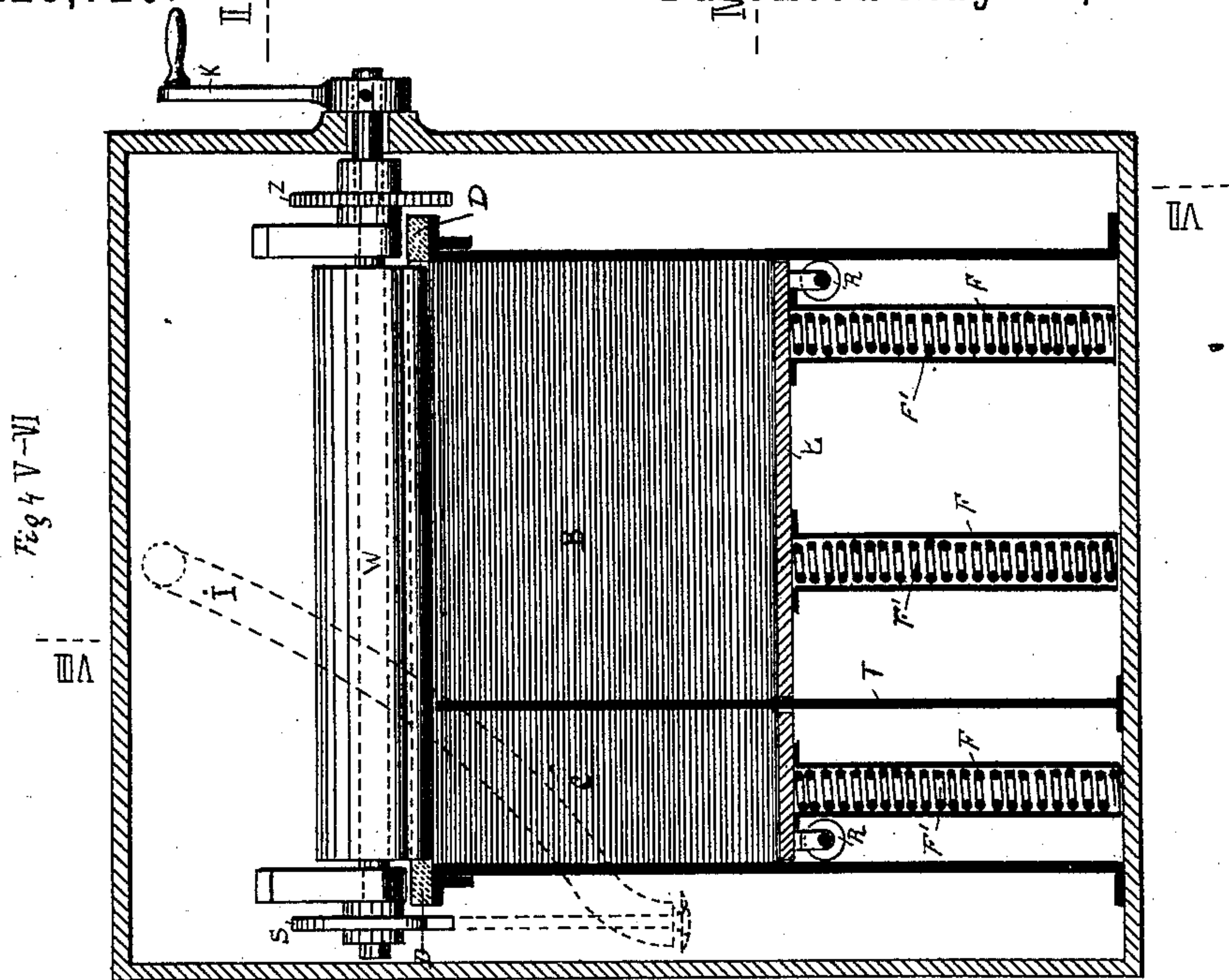
(No Model.)

2 Sheets—Sheet 1.

M. P. HANICKE & P. BERMICH.
AUTOMATIC DELIVERY APPARATUS.

No. 428,720.

Patented May 27, 1890.



Witnesses:
Alfred Stewart
Thomas Durant

Inventors
Moritz P. Hanicke and
Paul Bermich
by *Charles J. Church*
Their Attorneys.

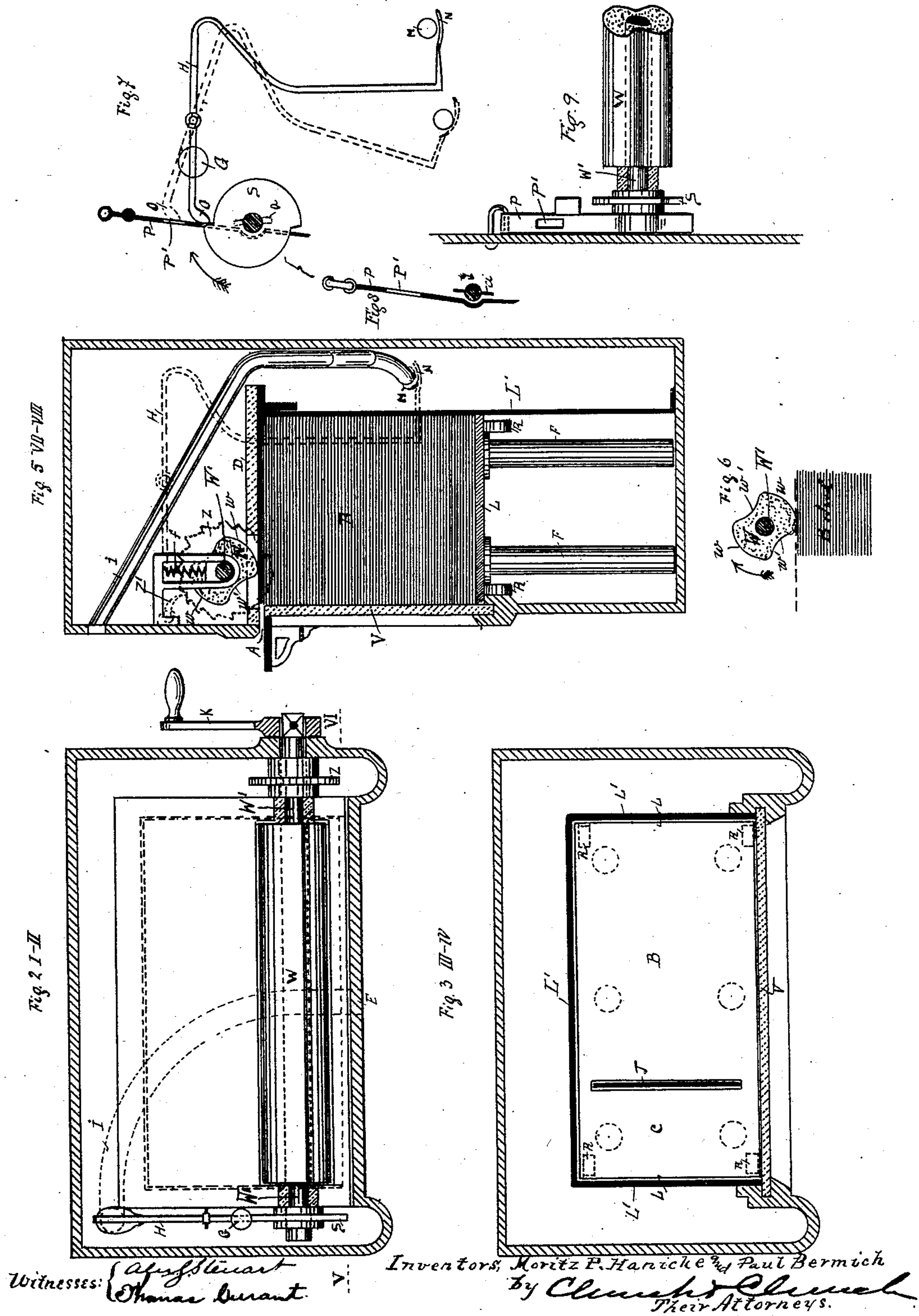
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UNITED STATES PATENT OFFICE.

MORITZ PAUL HANICKE AND PAUL BERMICH, OF BLASEWITZ, NEAR
DRESDEN, GERMANY.

AUTOMATIC DELIVERY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 428,720, dated May 27, 1890.

Application filed November 20, 1889. Serial No. 331,052. (No model.)

To all whom it may concern:

Be it known that we, MORITZ PAUL HANICKE and PAUL BERMICH, locksmiths, both subjects of the Emperor of Germany, residing at Blasewitz, near Dresden, Germany, have invented certain new and useful Improvements in Automatic Delivery Apparatus, (for which we have applied for Letters Patent of Great Britain, No. 17,769, dated November 7, 1889,) of which the following is a specification.

This invention relates to automatic delivery apparatus from which, after the introduction of a coin of a predetermined value, a person may receive a sheet of note-paper and an envelope.

In the accompanying drawings, Figure 1 is a front elevation of a machine constructed according to this invention. Figs. 2 and 3 are horizontal sections taken, respectively, on the lines I II and III IV of Figs. 1 and 4, the latter of which figures is a vertical section on the line V VI of Fig. 2. Fig. 5 is a vertical section on the line VII VIII of Fig. 4, and Figs. 6 to 9 are views of detached portions of the apparatus.

A is a slit through which is delivered the note-paper and envelopes, this being formed in the front of the machine-casing, just above the top edge of the portion V, which is preferably of transparent glass.

B are the sheets of note-paper, and C the envelopes, which are supported on a plate L, which is capable of being raised and lowered in the casing L', in which it is guided by rollers R, carried at the under side of the plate L, as shown most clearly in Fig. 4. When in its lowest position, the plate L is supported on tubular legs F, which then rest on the bottom of the apparatus. Within these legs F are springs F', Fig. 4, which gradually raise the plate L according as the height of the column of paper and envelopes becomes decreased.

D is the plate against which the uppermost of the sheets of paper and envelopes are pressed by the springs F'.

T is a partition-plate secured to the bottom of the casing, as shown in Figs. 3 and 4. This plate passes up through a slot in the plate L to keep the sheets of paper B separate from the envelopes C.

W is a roller composed of some material, such as india-rubber or any equivalent thereof having similar frictional qualities. This roller, as shown most clearly in Figs. 5 and 6, is formed with a mutilated periphery, or, in other words, it is formed with two concentric or frictional surfaces *w* and two flattened or concave or smooth surfaces *w'*.

W' is the shaft upon which is mounted the roller W, and upon which are also carried the ratchet disks or wheels S and Z (the former of which is hereinafter referred to as the "locking-wheel") and the pin *a*, which, as shown in Fig. 8, projects radially from the shaft at both sides. The wheel S is formed with only two teeth, with which engages the end O, herein termed the "catch," formed on one extremity of the lever H, the opposite end N of which is adapted to receive on it the coin M, by which the apparatus is to be released, as shown in Figs. 5 and 7.

G is a weight on the lever H to cause the catch O to re-engage with the locking-wheel S after the coin which had previously caused it to be disengaged has fallen off the opposite end N of the lever.

P is a detent, pivoted at or near its upper end, and provided with an opening P', and which normally rests against the catch O, which is adapted to engage with the opening P' in the manner shown in dotted lines in Fig. 7, when the apparatus has been released by the insertion of a coin and is free for the taking out of a sheet of paper and an envelope.

The roller W extends right over the paper B and envelopes C, and is pressed down upon them by springs *f*, Fig. 5, through a slot in the plate D.

E is the slit for the introduction of the coin for releasing the machine, and I is the chute for conducting it to the rear end of the lever H, and K is a crank-handle secured on the outwardly-projecting end of the shaft W'.

Z' is a pawl, which, as shown in dotted lines in Fig. 5, engages with the wheel Z to prevent the shaft W being turned in the wrong direction.

The operation of the machine is as follows: The necessary coin, after being inserted through the slit E, is conducted by the chute

I onto the rear end of the lever H, which end is depressed by the additional weight thus applied in the manner indicated in dotted lines in Fig. 7. The catch O is thus released from the locking-wheel S, and supported in such released position by engaging with the opening P'. A sheet of paper B and an envelope C may then be had by moving the handle K through half a revolution in the direction indicated by the arrows in Figs. 6 and 7, which operation will cause one of the concentric or friction surfaces *w* of the roller W to press upon and by its rotation move outward the paper and envelope through the slit A. At this juncture the roller W will have been removed out of contact with the paper and envelope by the presentment toward them of one of the roller's concave surfaces *w'*, and thus the said sheet of paper and envelope may be easily withdrawn through the slit A; but now the machine will have been reset, and no more of the sheets of paper and envelopes will be free for being withdrawn until after another coin has been inserted, for, the coin last inserted having fallen off the lever N and the detent P released from the catch O by the moving outward of P by the pin *a* when the shaft was turned round, the weight G will have brought the catch O down into engagement with S.

We claim—

1. In a machine such as described, the combination, with a wheel having projections thereon and a catch-lever engaging said projections to arrest the movement of the wheel and adapted to be operated by a coin to release the same, of a roller W, for moving the paper, having operative faces corresponding in number to the projections on the wheel, whereby but one face may be brought into operation each time the catch-lever is released, substantially as described.

2. In a machine such as described, the combination, with the shaft W', a locking-wheel mounted thereon, and a catch-lever engaging said shaft to prevent its rotation and adapted to be operated by a coin to release the wheel, of a detent automatically engaging the catch-

lever to hold it out of engagement, and a pin operated by the shaft to move the detent and release the catch-lever at a predetermined moment, substantially as described.

3. In a machine such as described, the combination, with a catch-lever H O, of a locking-wheel S, pin *a*, and detent P, for allowing the shaft in or upon which the pin *a* and wheel S are carried to be moved only one-half a revolution at a time, substantially as and for the purpose herein described, and illustrated in the accompanying drawings.

4. In a machine such as described, the combination, with the shaft W', the locking-wheel thereon having oppositely-arranged projections, and the coin-operated catch-lever engaging therewith to prevent the rotation of the wheel, of a friction-roller mounted on said shaft and having oppositely-arranged operative and inoperative faces corresponding in number to the projections on the wheel, substantially as described.

5. In a machine such as described, the combination, with a shaft W', a locking-wheel S thereon, and catch-lever O, having the opposite end H projected into the path of a coin and adapted to be operated thereby to release the wheel, of a detent P, for holding the lever out of engagement, a pin operated by the shaft to release the lever, and a friction-roller for advancing the paper having operative and inoperative faces, substantially as described.

6. In a machine such as described, the combination, with a casing and movable bottom L' L, of a partition T, passing through a slot in the said bottom, substantially as and for the purpose herein described, and illustrated in the accompanying drawings.

In testimony whereof we have hereto set our hands in the presence of two subscribing witnesses.

MORITZ PAUL HANICKE.
PAUL BERMICH.

Witnesses:

OTTO WOLFF,
BRUNO KÄSSNEY,
Both of Dresden.