(No Model.)

T. SCHNEIDER.

CARD DISTRIBUTER.

No. 372,389. Patented Nov. 1, 1887.

Fig. 1.

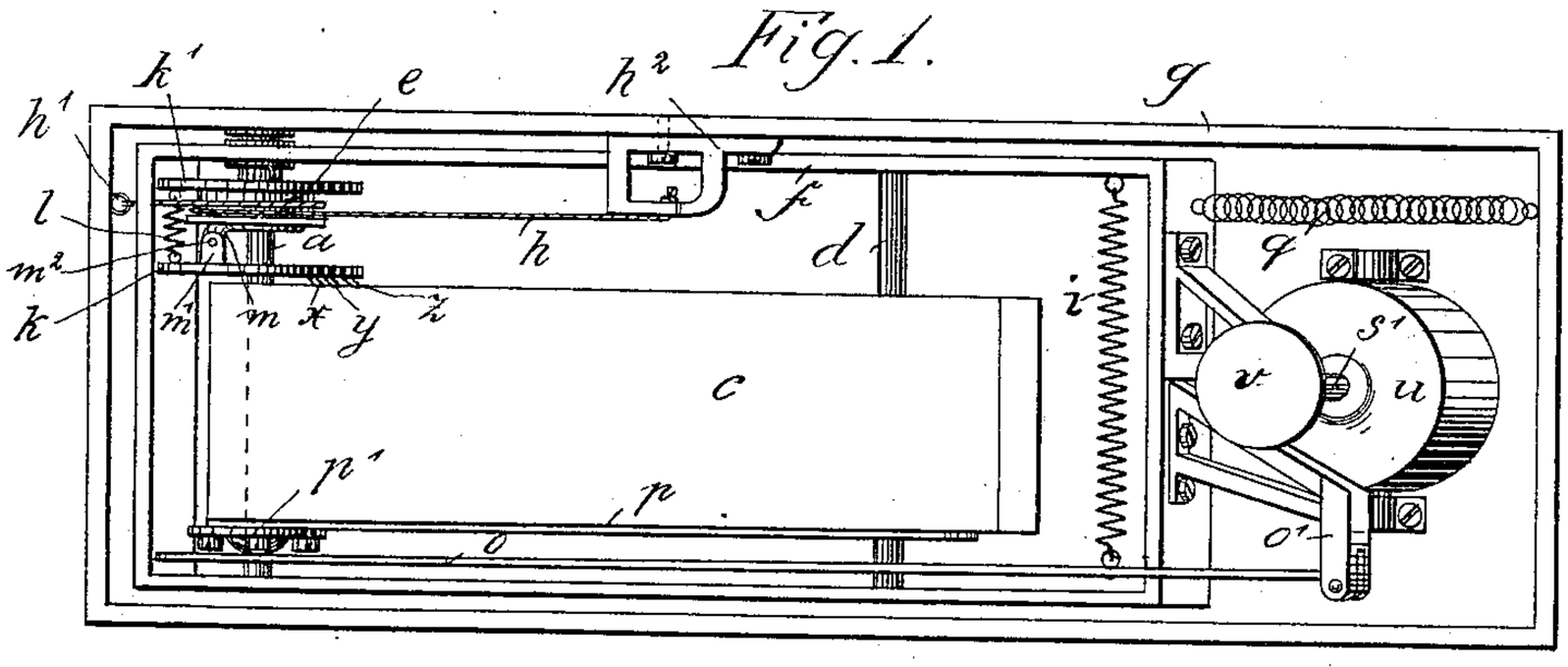


Fig. 2.

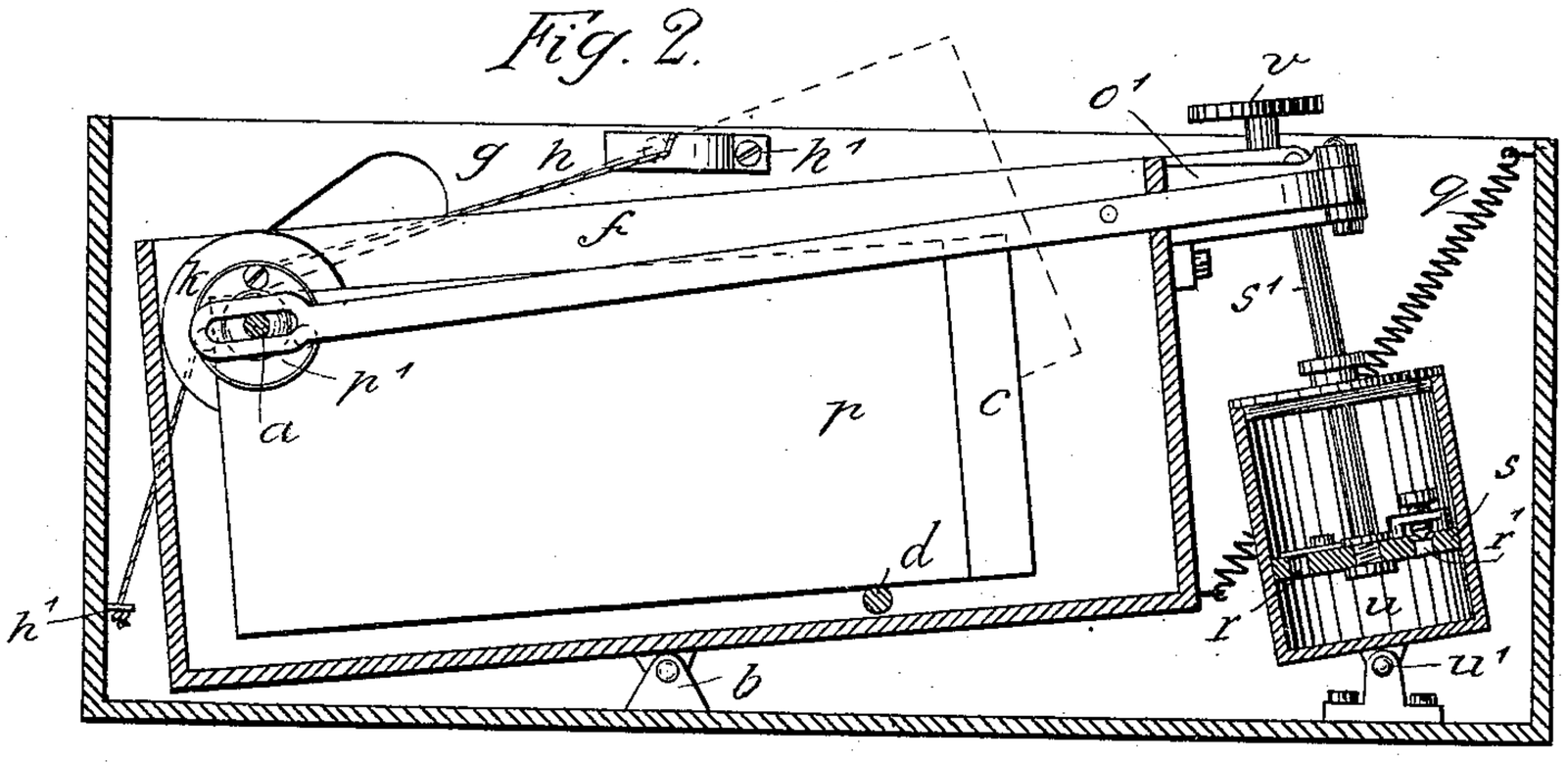


Fig. 3.

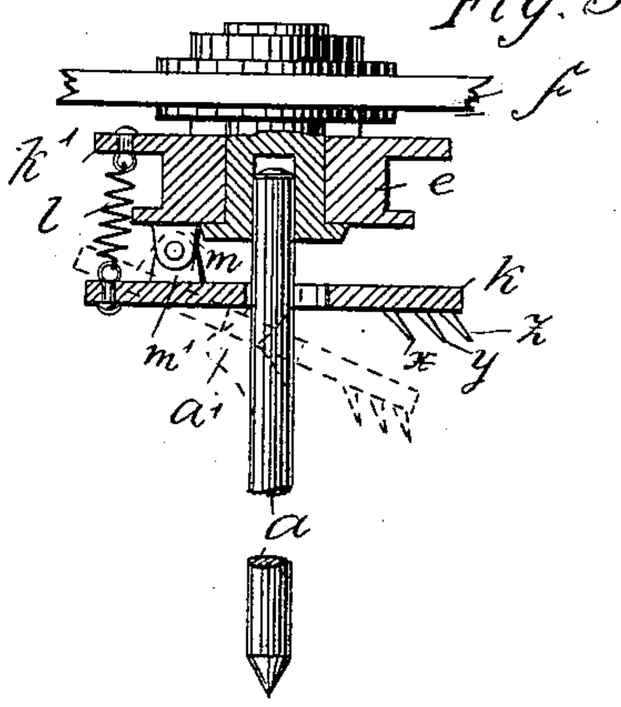
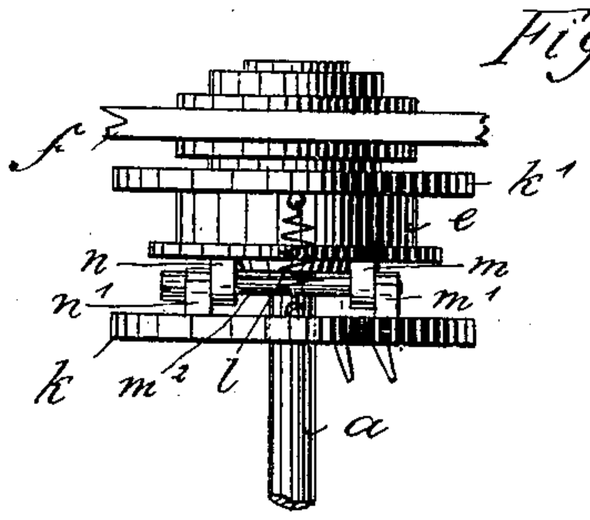


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

THEODOR SCHNEIDER, OF DRESDEN, GERMANY.

CARD-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 372,389, dated November 1, 1887.

Application filed February 8, 1886. Serial No. 191,264. (No model.)

To all whom it may concern:

Be it known that I, THEODOR SCHNEIDER, of Dresden, in the Empire of Germany, have invented a new and useful Automatic Business-Card and Circular Distributer; and I hereby declare the following to be a full and clear description thereof.

This invention relates to an apparatus for holding or storing business-cards, circulars, and other like matter, so that one card or one sheet at a time can be taken therefrom, the mechanism acting automatically to push out one card or one sheet at a time, as is required, at each operation of the machine.

The invention will be readily understood by reference to the accompanying drawings, of which—

Figure 1 is a general plan of the improved apparatus. Fig. 2 is an elevation of it. Fig. 3 is a sectional detail drawing of the feeding-disk and its operating mechanism. Fig. 4 is a detailed view of the device for pivoting the feeding-disk to its rotating pulley.

The cards, circulars, &c., held in and distributed by this apparatus are deposited in a holder, *f*, which is preferably a rectangular box open at the top. This holder is mounted in an inclosing-case, *g*, which also contains all of the other operative parts of the apparatus. The said holder is mounted in and attached to its inclosing-case by means of a rock-shaft or roller, *b*, on which it is allowed a slight oscillating movement up and down, the ends of the said shaft or roller *b* being secured to the inclosing-case. The holder *f* carries near its upper and inner end a transverse shaft or axle, *a*. The cards *c* are perforated, so as to allow the shaft or axle *a* to pass through them, and near the other end of the cards and below them is placed a transverse bar, *d*, the ends of which are attached to the sides of the holder-case *f*, and this bar forms a seat or sliding bar, on which the cards *c* rest and on which they easily slide from side to side, as required in their delivery, as presently explained.

The perforations of the cards *c* for the shaft *a* are best made in the form of small slots extending from the shaft-seat to the end of the card, so that they may be easily put into the machine; otherwise the said shaft *a* must be made easily detachable from the apparatus, so that the cards may be put on the shaft by running one of its ends through them. A follower-plate, *p*, is also perforated for the shaft *a*, and rests on the sliding bar *d* by the side of the pack of cards, and it is arranged to constantly press against the contiguous side of the pack or stock of the cards in the holder and habitually press the whole pack or stock toward the delivery side of the apparatus, so that as one card is removed the next following card will be pressed up to take its place, and so on until the whole stock of cards shall have been removed from the machine. This follower-plate *p* is operated by a spring-bar, *o*, which is secured at its front end to a bracket, *o'*, attached to the holder-case *f*, and at its rear end presses against a convex button, *p'*, attached to the contiguous face of the follower-plate *p*. A coiled spring, *i*, has one of its ends secured to the inner side of the holder-case *f*, and its other end to the inside of the follower-bar *o*, and acts with a constant tension to draw the follower-bar and its follower *p* tightly up to the side of the stock or pack of cards, so as to press them over toward the delivery side of the apparatus.

The shaft *a* carries on it, at the delivery side of the apparatus, a card-lifter disk, *k*, which is rotated with and by the said shaft. Outside of the said disk there is also loosely mounted on the shaft *a* a wheel or drum, *e*, which is rotated, as hereinafter described. A pair of studs or lugs, *m n*, are secured to the inner face of the wheel *e*, and a corresponding pair of lugs attached to and projecting from the contiguous face of the disk *k* are placed by the sides of and joined to the said lugs *m n* by means of a pivot-pin, *m'*, so as to allow the said disk *k* to swing thereon as on a hinge, as shown by the dotted lines in Fig. 3.

A coiled spring, *l*, has one of its ends secured to the outer side of the disk *k*, near its periphery, on the pivoted side of it, and the other end of the said spring is attached to the contiguous face of the disk or arm *k*, which is mounted on the shaft *a* outside of the wheel *e*. This spring *l* constantly draws the attached side of the disk *k* toward *k'*, the disk *k* swinging on its hinge *m n m'*, and this causes the feeding studs or teeth *x y z*, with which the other side of the disk *k* is provided, to press against the contiguous face of the cards *c*. The disk *k*, thus swinging on its hinge *m n m'*

and mounted on its rotating shaft *a*, in order to allow for this laterally-swinging movement, is slotted for the passage of the shaft *a*, or the said shaft may be bent to accommodate the lateral movement of the disk *k*, as shown by the bend *a'* in Fig. 3. An operating-cord, *h*, has one of its ends fastened to the end of the case *g* at *h'* and its other end secured to the bracket h^2, attached to the inside of the said case *g* at some considerable distance from the axle *a*. The intermediate part of the cord *h* is turned once or twice around the loose wheel or drum *e*, and the said wheel or drum *e* is rotated by this cord, as presently explained.

The card-holder case *f*, mounted on its trunnion or fulcrum support *b*, is allowed a tipping or oscillating movement thereon, and it is normally held in an inclined or sloping position by the spiral spring *q*, which habitually holds the front end of the card holder *f* slightly raised up, as shown in Fig. 2. An operating knob or handle, *v*, is attached to the front end of the case or holder *f*, by means of which to press it down. When the operator presses down on the knob *v*, he depresses the front end of the case *f* against the action of the holding-spring *q*, and by the same movement he causes the drum or wheel *e* to rotate slightly, by reason of the cord *h* being wound around it and the ends of the cord being securely attached to the fixed case *g*. This semi-rotation of the wheel *e* is likewise communicated to the disk *k*, throwing the teeth or feeding studs or teeth *x y z* of the said disk downward and impinging them tightly against the outside of the first card of the pack. The effect of this combined movement of the disk *k* and its teeth *x y z* is to push the front or free end of the said first card up on the upward reciprocating movement of the card-holder, as shown by the dotted lines in Fig. 2, so that it may readily be drawn from the stock of cards or sheets in the case or holder *f*. Whenever a card is so drawn from the case or holder *f*, another (the next following card) is raised up, ready for withdrawal, by simply pressing down on the knob *v*, in the manner above described. As the downward pressure on the push-knob *v* is usually quickly done, and as the action of the spring *q* in raising the front end of the holder-case *f*, unaided by any regulating device, would be equally quick, and as such a quick upward movement would be unfavorable to the full and free action of the card-lifter disk *k x y z*, I add to the mechanism of the apparatus a regulator which permits this free quick downward movement of the case *f*, and which checks its upward movement to the speed best adapted to the free operation of the said card-lifter. This regulator consists of a cylinder, *u*, which is mounted on trunnions *u'* at its bottom end, so as to allow it an oscillating movement. This cylinder is fitted with a sliding piston, *s*, and its piston-rod *s'*, at its upper end, is attached to a lug projecting from and attached to the front end of the holder-case *f*. The piston *s* is provided with a valve, *r*, which is constructed to open wide and quickly when the piston is rapidly pressed down by pressing on the knob *v*, as above described, so as to allow the air from the bottom end of the cylinder easy and quick escape therefrom, and then when the piston is so pressed down the air-vent *r'* is arranged, by means of a regulating-screw fitted to its aperture, to allow the air to re-enter the lower end of the cylinder in small quantities, so as to permit the spring *q* to pull the case up, but to compel it to pull it up slowly and gently, just at the speed required for the best action of the card lifter, as above described.

Having described my invention, I claim—

1. A card holding and distributing case mounted on a turning or pivot pin fixed in a stationary frame or case, so as to allow the distributing-case a slight vertically-oscillating movement, an actuating spring arranged to habitually hold the front end of the holder-case up, though permitting its depression, and a rotating swinging disk placed at the delivery side of the card-holder and arranged to impinge against the adjacent face of the cards held therein, and also to rotate upwardly and thereby lift up the front end of the first or outside card at each semi-rotation, the whole combined and arranged substantially as described and set forth.

2. The card holder *f*, the operating or lifting spring *q*, the card-lifter *k*, and the actuating-wheel *e* and cord *h*, combined and arranged as described and set forth.

3. The oscillating card-holder *f*, the card-lifter *k*, wheel *e*, and operating-cord *h*, in combination with the follower *p*, follower bar *o*, and actuating-spring *i*, substantially as described and set forth.

4. The regulating device consisting of the cylinder *u*, piston *s*, with its rod *s'*, valve *r*, and vent *r'*, in combination with the card-holder *f* and its lifting-spring *q*, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THEODOR SCHNEIDER.

Witnesses:
OSCAR MÜHLNER,
B. ROI.