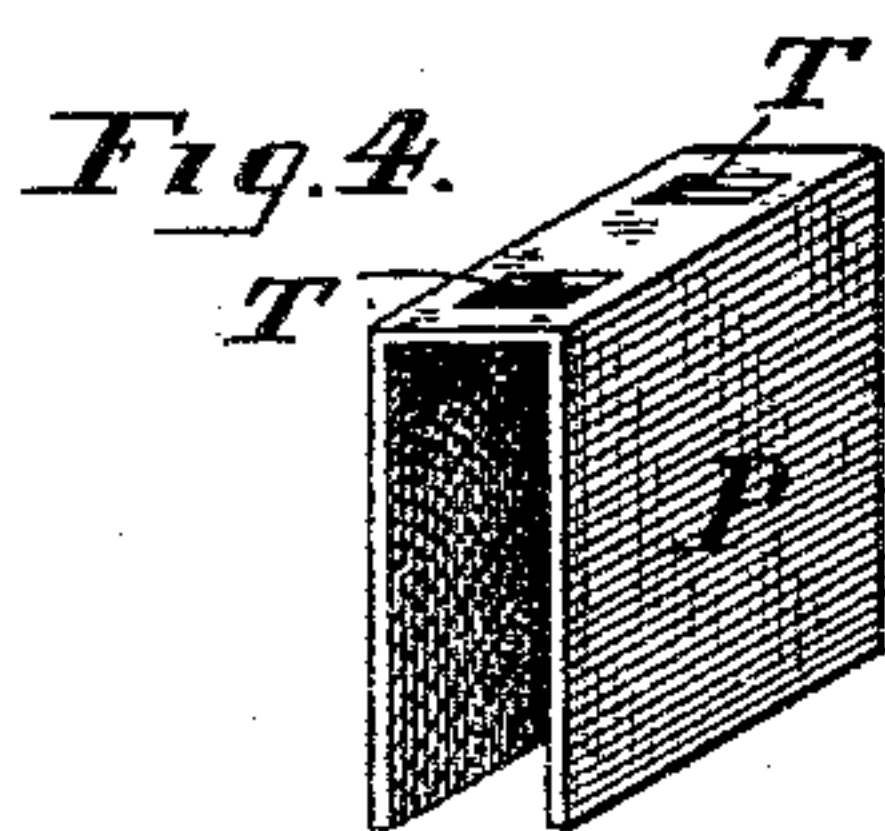
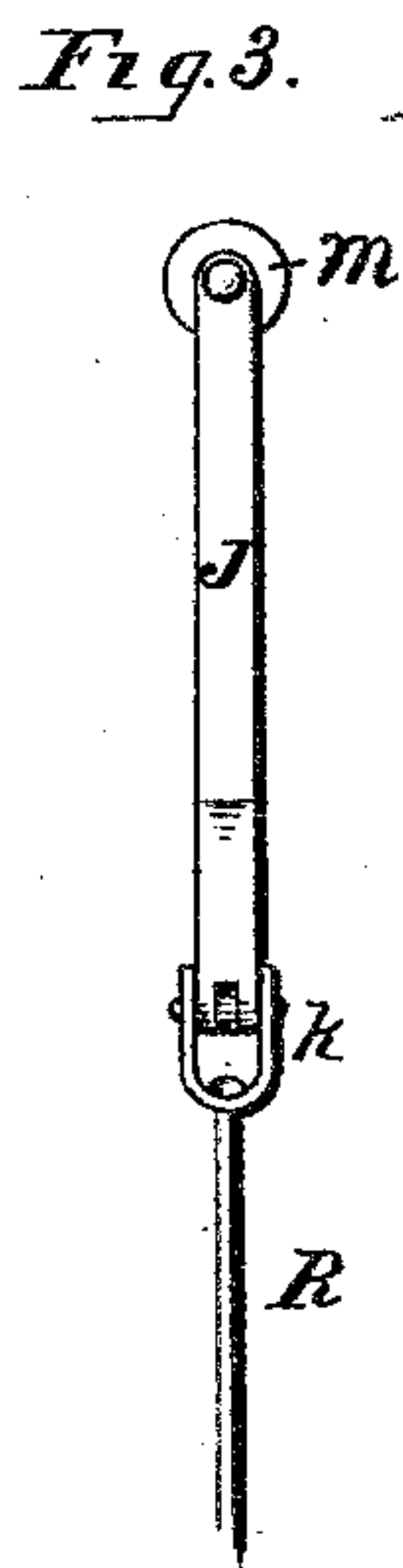
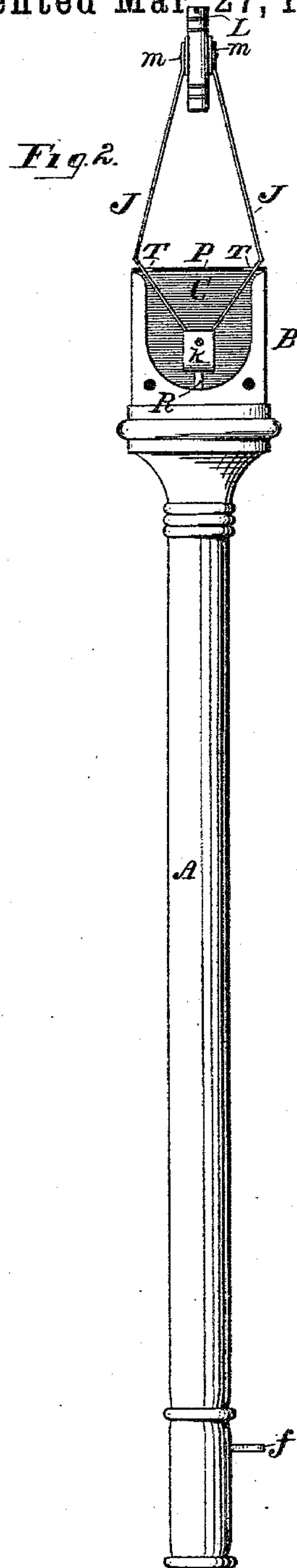
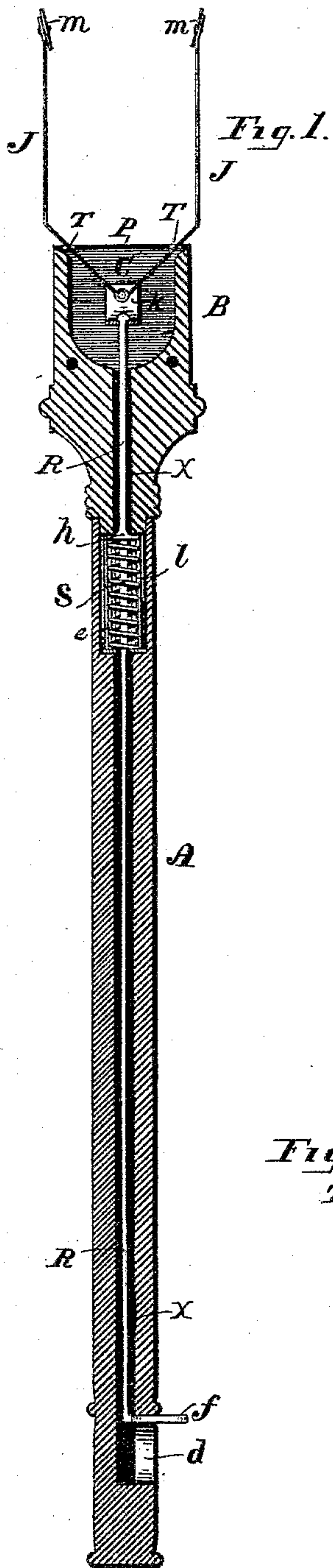


(No Model.)

C. A. GILDEMEYER.
GRIP STAFF OR GRIPPER.

No. 274,586.

Patented Mar. 27, 1883.



WITNESSES:

W. H. Leulven
John Burkhardt.

INVENTOR

Charles A. Gildemeyer.
per Joshua F. Huey, atty.

UNITED STATES PATENT OFFICE.

CHARLES A. GILDEMEYER, OF PHILADELPHIA, PENNSYLVANIA.

GRIP-STAFF OR GRIPPER.

SPECIFICATION forming part of Letters Patent No. 274,586, dated March 27, 1883.

Application filed February 16, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. GILDEMEYER, a citizen of the United States, residing at the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Grip-Staffs or Grippers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a longitudinal section of my invention with the parts thereof in usual or normal position. Fig. 2 is an elevation, showing the implement as in actual use. Fig. 3 is a side elevation of the gripper-fingers and actuating-rod detached, and Fig. 4 is an oblique view of the slotted guide-plate detached.

The object of this invention, which I term a "grip-staff," is to provide a handy and efficient implement for readily seizing hold of and removing or replacing light articles usually out of the way of convenient reach of the hand. It is especially useful for placing in and taking out of the large bulk-windows of stores the various goods therein displayed. As made as shown and described hereinafter—that is, with thin elastic fingers—it is also well adapted for taking down books from and putting them in place upon shelves.

The general construction of the device, which, it will be seen, is quite simple in operation, is clearly shown by Fig. 1 of the annexed drawings.

A is a staff or handle, made preferably of wood, of any desired length and thickness, and is provided with an enlarged recessed head, B. It is bored out longitudinally, forming a hole, *x*, communicating at one end with a recess, C, in the head B, and at the other extremity with an open slot, *d*. At some convenient point in its length the bore *x* is enlarged to form a chamber, *e*, for the reception of a spiral spring, S, whose function will be explained farther on. A sliding rod, R, inserted within the tubular handle, is bent at its lower end, so as to form a thumb-catch, *f*, projecting a short distance through and beyond the slot *d*. This rod has also an offset or collar, *h*, against which the coiled spring S rests, the opposite end of the latter being supported by the bottom of the chamber in which it is contained, as seen in Fig. 1. To the upper extremity of the said rod, extending within the recess C, is connected a

clevis, *k*, to which are hinged a pair of angular coacting grippers or fingers, J, which may be made to close together and open out again, whenever desired, in the manner hereinafter described. I prefer to make these fingers of elastic steel or brass, so that when they are brought to clamp any smooth or unyielding article—such as a book—their elasticity will cause them to bend in toward each other, and thus present a greater frictional surface to the article. I also prefer to secure a disk or button, *m*, of some soft material—such as india-rubber—to the free ends of the fingers, in order to aid in holding and to prevent the marring of the books, &c. It will be seen that the outer or free portions of these fingers J are straight, or substantially parallel with each other and with the length of the handle, while the other parts are bent in toward each other, forming an obtuse angle, and are connected by the clevis-hinge, as before referred to. These oblique parts of the fingers pass through guide-slots T, respectively, in a plate, P, which is secured to the head B of the staff.

The operation of the device is as follows: It is grasped by the hand at the lower end of the handle and carried to a position so as to inclose a part of the article to be lifted between the gripper-fingers. Rod R is then retracted by pressing with the thumb or finger down upon the projection *f* of the rod. This action draws down the grippers and causes them to close upon and clamp any article, L, Fig. 2, between them, owing to the oblique portion of the fingers, in being retracted, bearing against the outer sides, respectively, of the slots in plate P. To let go the article when removed to the desired spot, it is merely necessary to release the hold of the thumb or finger, as the case may be, upon the projecting end *f* of the rod, whereupon the compression-spring S causes the rod to return to its former position, and the connected bent arms of the grippers, then bearing against the inner sides of the respective slots, compels the fingers to resume their normal position, as in Fig. 1.

The spring S may be dispensed with, in which case the rod R would be operated by the thumb or finger in opening as well as in closing the gripper-fingers.

I do not confine myself to the precise details of construction of the several parts of my de-

vice as shown, as they may be varied considerably by any skillful mechanic without affecting the essential features or mode of operation of the invention as described, and herein
5 claimed.

What I claim as new, and wish to secure by Letters Patent, is—

1. An implement for the purposes hereinbefore recited, consisting of the staff or handle,
10 the sliding rod working therein, the gripper-fingers bent and hinged together and connected with said rod, and the guide-plate provided with slots or bearings therein, in which the said fingers play, all constructed, combined,
15 and operating substantially as and for the purpose set forth.

2. The combination of the handle, the sliding rod with a projection, *f*, the spring, the angular fingers connected together and to said
20 rod, together with the guide slots or bearings in which the said fingers operate, and are thereby caused to approach and to separate by the movement of the rod, the combination and operation being substantially as herein-
25 before specified.

3. In combination with the handle or staff, having the chamber *c* therein, and recessed head B, the sliding rod R, with collar *h*, and spring S, within said chamber, the bent grippers J, joined to said rod, together with the
30 plate provided with the guide-slots T, substantially as and for the purposes stated.

4. In combination with the actuating mechanism, substantially as described, the gripper-fingers, made of steel or other suitable elastic
35 material, whereby a greater surface of said fingers may be brought into contact with the article clasped by the same, as specified.

5. The combination, with the gripper-fingers, of the disks of india-rubber or other soft and
40 frictional material, as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature this 15th day of February, A. D. 1883.

CHARLES A. GILDEMEYER.

Witnesses:

JOHN BURKHARDT,
LISLE STOKES.