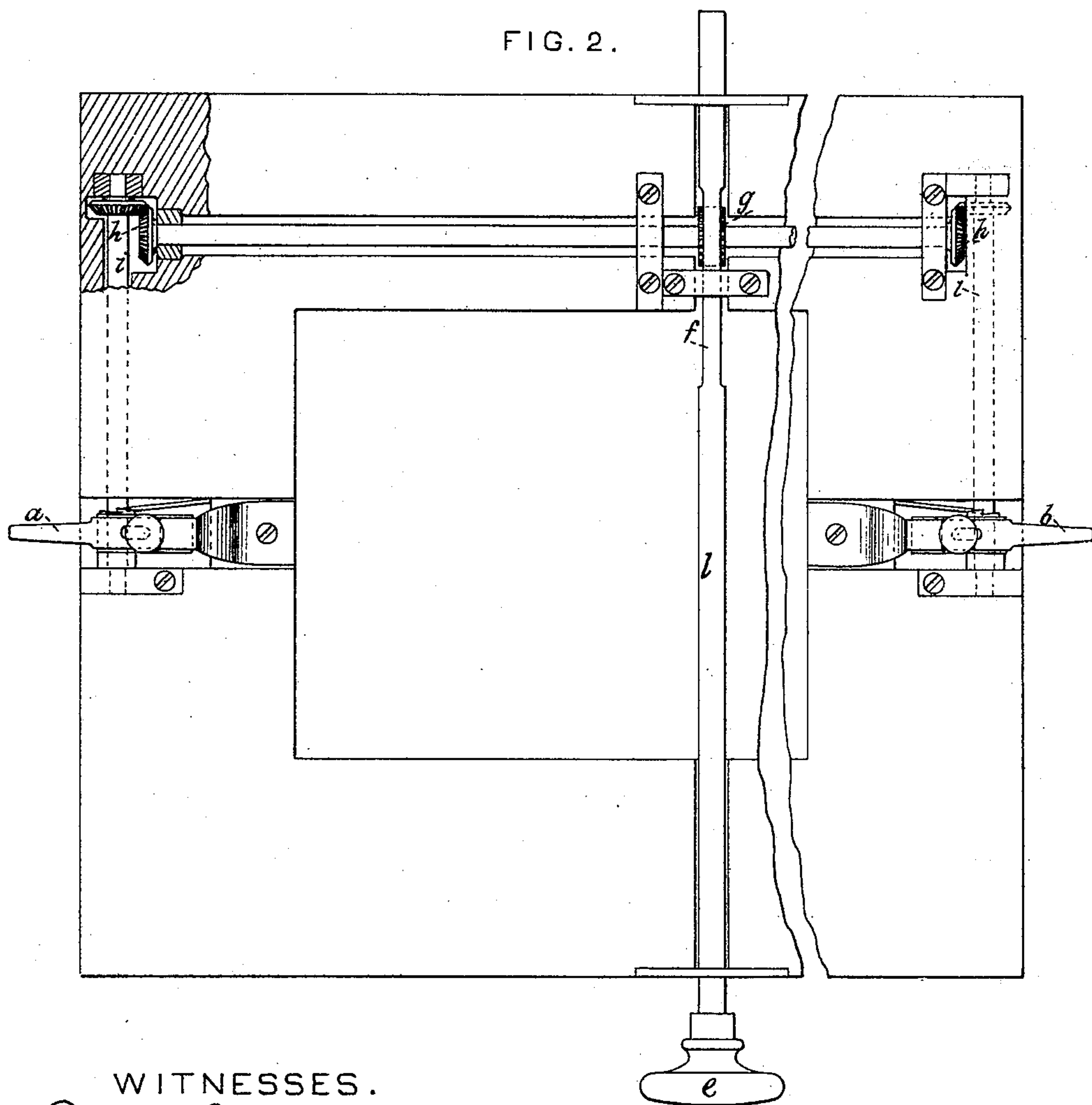
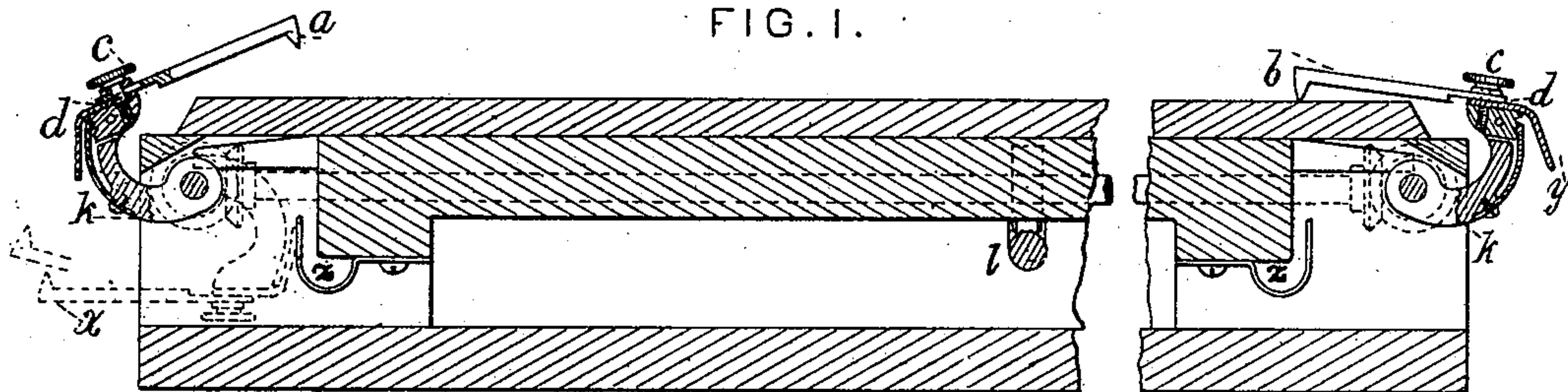


J. R. VREDENBURGH.

REGISTERING APPARATUS FOR PLATE PRINTING.

No. 181,748.

Patented Aug. 29, 1876.



WITNESSES.

David E. Gwynne.
Aaron Butler

John R. Vredenburg
by his Attys. Wm. L. Hall.

INVENTOR.

UNITED STATES PATENT OFFICE.

JOHN R. VREDENBURGH, OF NEW YORK, N. Y.

IMPROVEMENT IN REGISTER APPARATUS FOR PLATE-PRINTING.

Specification forming part of Letters Patent No. 181,748, dated August 29, 1876; application filed February 4, 1876.

To all whom it may concern:

Be it known that I, JOHN R. VREDENBURGH, of New York, in the county and State of New York, have invented a certain new and useful Register Apparatus for Plate-Printing, of which the following is a specification:

When a sheet has to be subjected two or more times to the process of printing, it has been usual hitherto, in plate-printing, to make a small cross or other mark with a definite point on the opposite margins of the plates, so that when the mark printed on the sheet by the first plate is applied to the corresponding marks on the plates subsequently used, the impressions therefrom are applied in their proper relative positions on the sheet. These marks are termed the "register."

Where the printing is rapidly effected, as with a power-press, it is difficult within the limited time desirable to apply the sheet with precision to the marks at the same time on the opposite sides or ends of the plate.

The object of my invention is to hold the paper on the plate by a register-point pressed down by hand on one side of the plate while the paper is being adjusted to the point on the other side of the plate, which is, in turn, pressed down to hold it. The register-points are moved back and forth by the action of the machine, between the position in which they are out of the way below the plate and the position in which they are placed (about one-sixteenth of an inch above the plate) to have the paper placed under them, as above described. When the plate and paper are moved under the printing-roller, the action of the press moves the points out of the way, and they remain out of the way until the plate has moved back from the printing-roller, and is in readiness for another sheet, when the points are again brought forward a short distance above the plate, as before, by the action of the machine. The points are operated partly by hand and partly by the machine.

To enable others skilled in the arts to which it appertains to make and use my invention, I will proceed to describe its construction and operation with reference to the drawing.

Figure 1 represents a section, and Fig. 2 a plan, of the said register machine or apparatus.

The points *a* and *b* are mounted on arms, which are secured by the thumb-screws *c* on the spring rocking caps *d*. These arms may be extended or shortened from the screw by reason of the slot with which they are made, and they may be moved to one side or the other with the screw as a center, and they are therefore adjustable to the register-marks in the plates both in length and radially. When a sheet has been placed upon the plate, and the points pressed down to hold it, the plate moves forward, and when the paper has been caught with the plate by the printing-roller, the handle *e* comes in contact with a suitable part of the press, and is pressed in, and, by means of the rack *f* on the lower side of the rod *l* gearing into the pinion *g*, the bevel-wheels *h* turn the shaft *i* and the arms *k*, which carry the register-points to the position shown in dotted lines at *x*.

When they are out of the way of the printing-roller and the inking and wiping apparatus, and when the projecting ends of the caps *d*, as at *y*, strike the spring *z* at the bottom of the recess, the caps and register-points are caused to assume the position relative to the arms that is shown at *a*. When the plate is again moved for the reception of another sheet, the rod *l*, or the handle *e*, again comes in contact with a suitable part of the press, and the points are again moved out and placed over the plate.

I claim—

1. The register-points *a b*, arranged in combination with the caps *d* and the arms *k*, substantially in the manner described.

2. The combination of the adjustable points *a* and *b*, the arms *k*, and the shaft *i*, the rack *f* and pinions *g*, and the handle *e* and the rod *l*, substantially in the manner described.

J. R. VREDENBURGH.

Witnesses:

CHARLES THIES,
WM. KEMBLE HALL.