W. H. Chandler.

Printing Press.

No. 88,448. Patented Mar. 30, 1869.

Fig: 2

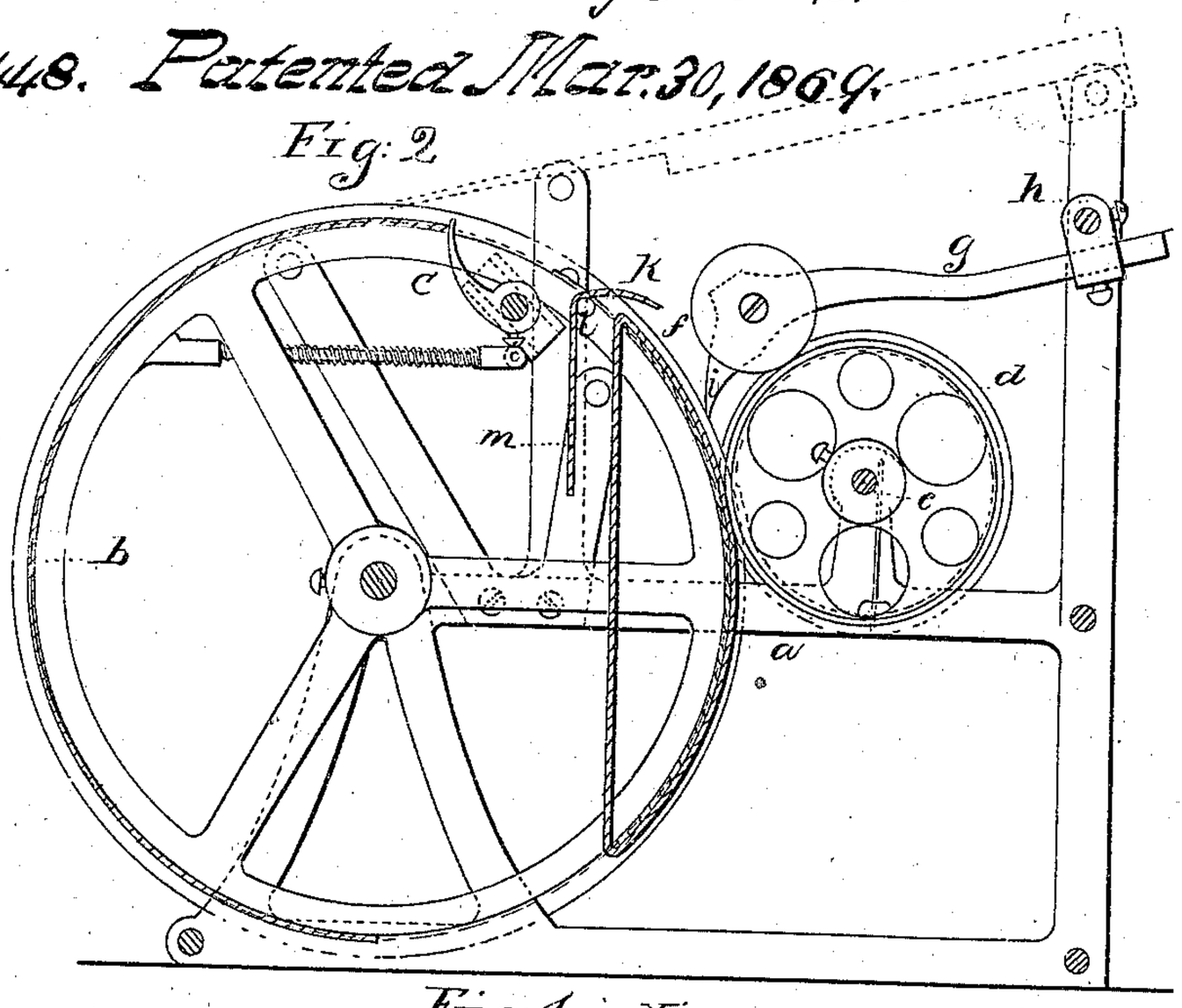


Fig: 1. x

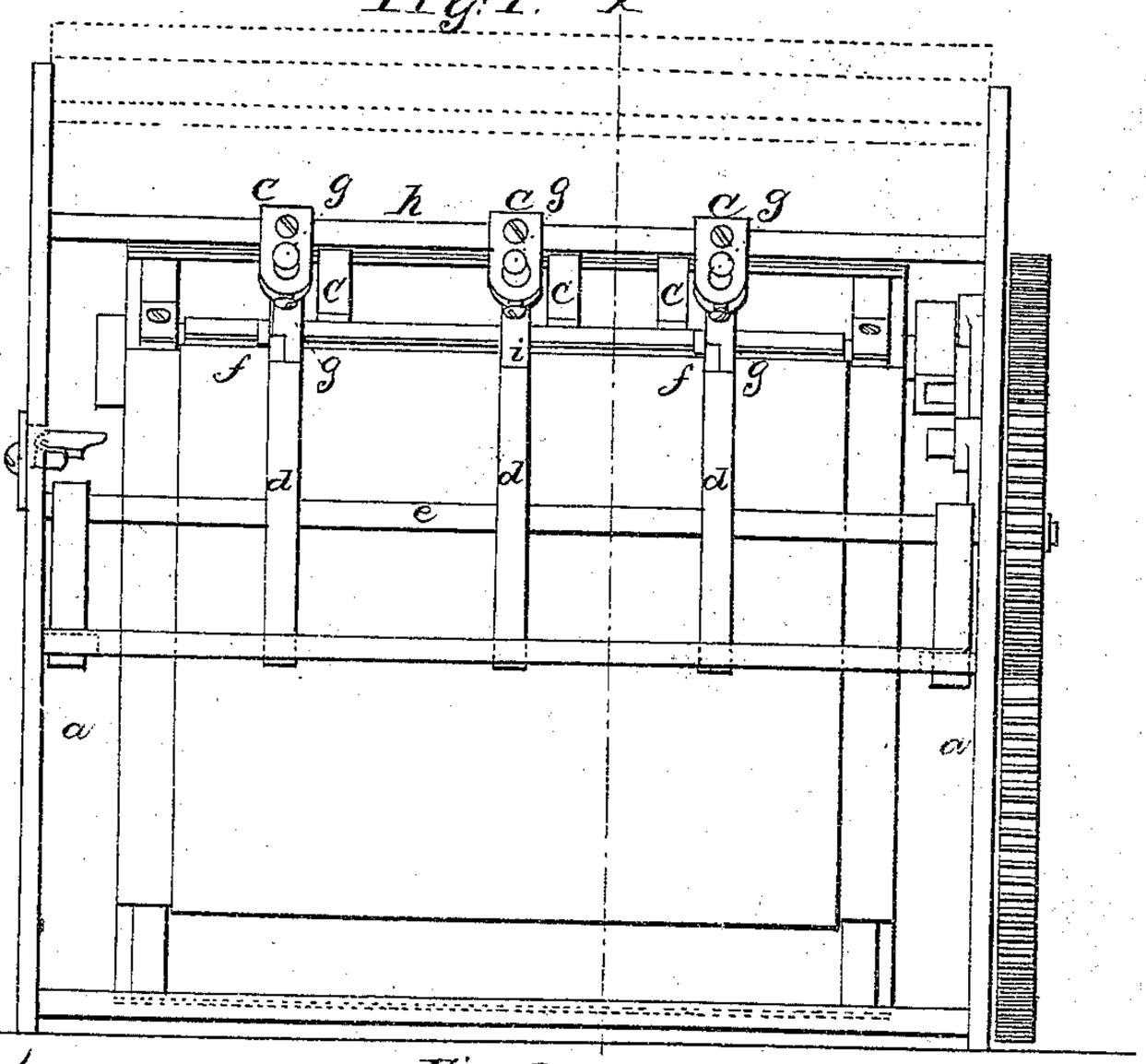


Fig: 4

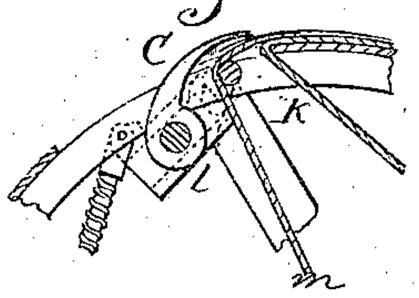


Fig: 3. x

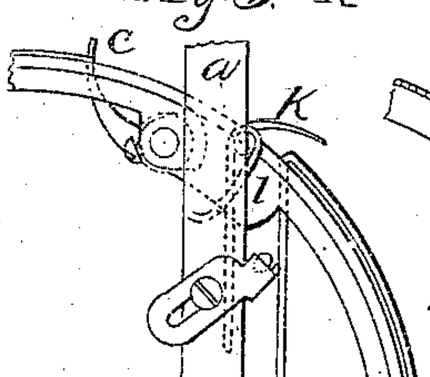
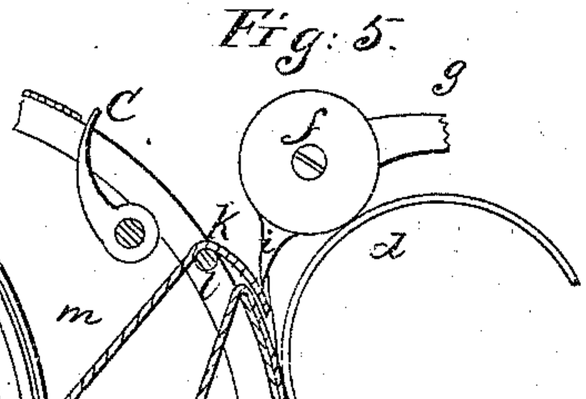


Fig: 5.



Witnesses:

W. B. Crosby

Francis Gould

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UNITED STATES PATENT OFFICE.

WILLIAM H. CHANDLER, OF WINCHESTER, MASSACHUSETTS.

IMPROVEMENT IN PRINTING-PRESSES.

Specification forming part of Letters Patent No. **88,148**, dated March 30, 1869.

To all whom it may concern:

Be it known that I, W. H. CHANDLER, of Winchester, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Cylinder Printing-Presses; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In common cylinder printing-presses the edge of the sheet of paper is seized by the nippers and held by them until, in the rotation of the cylinder, the edge, after the printing is effected, is directed by the guiding-tapes between the tapes and delivery or tape rolls, the tapes carrying the printed sheet over said rolls and down into position to be taken by the fly, the tapes passing around the cylinder and small guide-rolls and over the delivery-tape rolls placed between the cylinder and guide-rolls. The employment of these tapes is objectionable, in that they have to be adjusted laterally upon the cylinder in accordance with the width of the sheet to be printed, and also in that they are apt to break and fall upon and injure the form.

The primary object of my invention is to enable these conducting-tapes to be entirely dispensed with, and this I attain by combining with the cylinder and nippers a swinging leaf or plate against which the edge of the sheet rests, the edge of the plate swinging out when the nippers release the sheet and throwing the edge of the sheet under a series of fingers, which guide it to take-off or delivery rolls that transfer the printed sheet to the fly. It is this construction or organization that constitutes my invention.

The drawings represent a printing-press, or the part of a cylinder printing-press embodying my invention.

Figure 1 shows an end view of the mechanism; Fig. 2, a vertical section on line *x x*. Fig. 3 is a detail showing a modification of the leaf mechanism. Fig. 4 is a detail section, showing edge of the leaf as closed down against the cylinder. Fig. 5 shows the action of the leaf upon the edge of the sheet.

a denotes the frame-work; *b*, the cylinder which carries the sheet to the form; *c*, the nippers which seize and hold the sheet as the cylinder rotates; *d*, the take-off rolls fixed on a rotary shaft, *e*, which is geared to the cylinder, the peripheries of the rolls bearing against the tympan as it rotates past them. Above the rolls *d* are friction-rolls *f*, resting upon the rolls *d*, each roll *f* turning on a pin projecting from a weighted arm, *g*, fixed to a rocker-shaft, *h*. From each arm *g* a guide-finger, *i*, projects down toward the cylinder, the point of the finger nearly touching the cylinder, and the finger being so curved or formed that if the edge of the sheet of paper be fed up under it such edge will be guided to the point of contact of the take-off and friction rolls, by which the sheet will be seized and transferred to position to be taken by the fly.

k denotes the swinging leaf or plate extending the length of the cylinder and fixed to a rocker-shaft, *l*, a weighted tail-piece, *m*, projecting inward from the shaft and acting to throw out the edge of the leaf when the leaf is in the vicinity of the take-up rolls. The nipper-points lie against this leaf, or against the edge of the paper held by the nippers, and hold the leaf down to the cylinder as long as the nippers hold the paper. The edge of the paper fed in by the pressman is placed over the leaf, (the edge of the leaf being held against the cylinder by the weighted tail-piece when the cylinder is in position to take the sheet,) and the nippers are then thrown over and grasp the sheet. As the tympan in rotating comes up to the fingers *i* the nippers are thrown out to release the sheet, and upon the release of the leaf from contact of the nippers the edge of the leaf flies out and throws over the edge of the sheet of paper, so that the continued movement of the sheet by the contact of the take-off rolls and cylinder carries the edge of the sheet up under the guide-fingers, or between them and the take-off rolls, guiding the edge to the point of contact of the take-off and friction rolls, which, biting upon the sheet, transfer it into position to be removed by the fly.

The guide-fingers, friction feed-rolls, and take-off rolls are all made adjustable in position in the direction of the length of the cyl-

inder for the reception of sheets of various widths to be printed.

By this construction it will be seen that no guide-tapes are needed, and the necessity of adjustment of tapes upon the cylinder is obviated, as also the annoyance arising from breakage of tapes and loss of time in repairing or replacing them. Furthermore, no injury can occur to the form by broken tapes falling thereon.

I claim—

1. In combination with a cylinder printing-press and its nippers, a leaf or equivalent device for throwing off the edge of the printed sheet, when released from the nippers, into position to be guided to or seized by take-off mechanism, substantially as described.

2. In combination with the leaf *k*, the fingers *i* and rolls *d f*, substantially as shown and described.

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