

V.E. Mauger's Gripper Attachment to Printing Cylinders.

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Fig. 1.

PATENTED JUL 4 1871

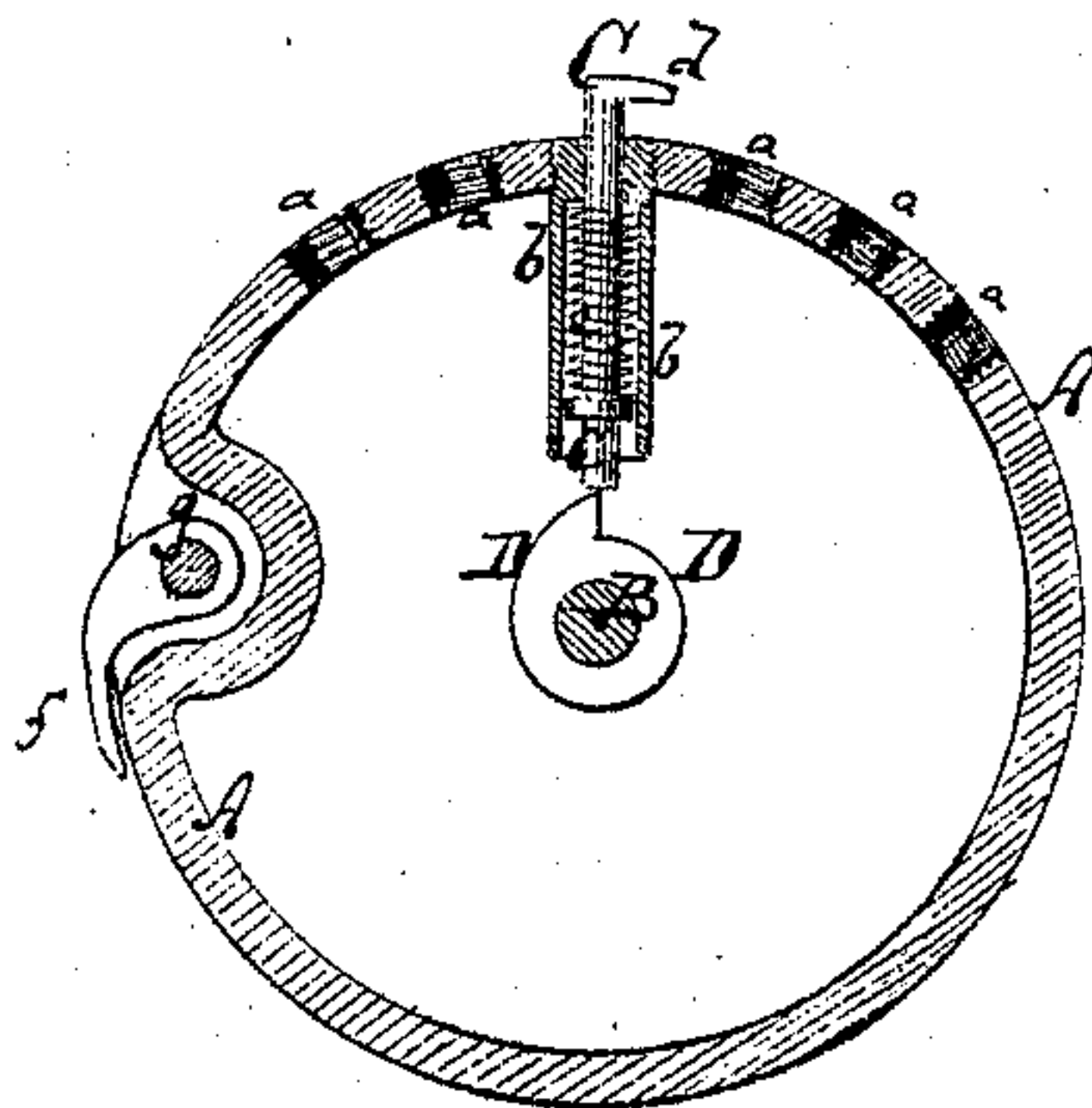
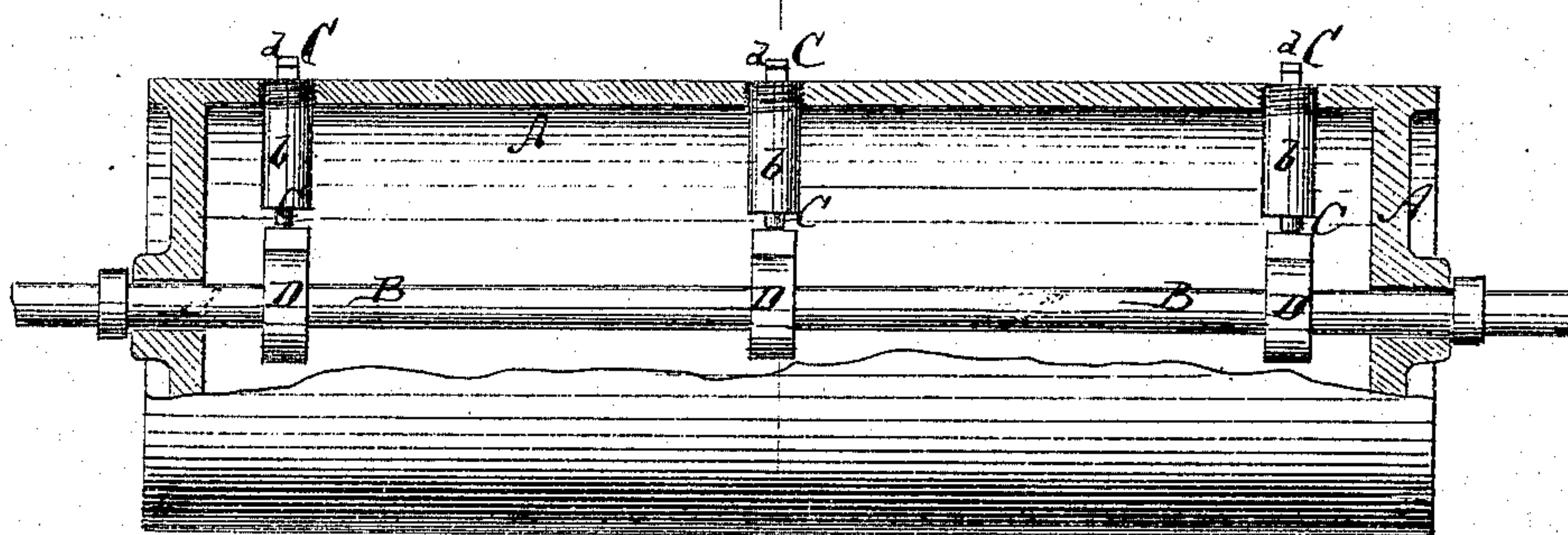


Fig. 2.



Witnesses:

Chas. Nide.
Wm. H. C. Smith.

Inventor:

V. E. Mauger.

PER

Munroe
Attorneys.

UNITED STATES PATENT OFFICE.

VICTOR E. MAUGER, OF NEW YORK, N. Y.

IMPROVEMENT IN GRIPERS FOR CYLINDER PRINTING-PRESSES.

Specification forming part of Letters Patent No. 116,616, dated July 4, 1871.

To all whom it may concern:

Be it known that I, VICTOR E. MAUGER, of New York city, in the county and State of New York, have invented a new and Improved Griper Attachment to Printing-Cylinders; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a vertical transverse section of a cylinder provided with my improved griper attachment. Fig. 2 is a side view, partly in section, of the same.

Similar letters of reference indicate corresponding parts.

The cylinders of printing-presses are provided with gripers for holding the paper during the process of printing. Where one cylinder receives the sheets of paper alternately from opposite sides to carry them in opposite directions over the printing-bed, it must be provided with two sets of gripers. The object of my invention is to provide the cylinders of such two-feeder presses with adjustable gripers, so that sheets of suitable lengths can be held therein. The invention consists in the use of radial spring-gripers guided in movable tubes, which can be set in the perforated cylinder, so that one set will be a suitable distance from the other set of gripers. A set of cams on the stationary central shaft serves to move the radial gripers for opening and closing the same.

A in the drawing represents a printing-cylinder, of suitable construction, hung upon a stationary shaft, B, so as to oscillate thereon when impelled by suitable mechanism. The cylinder has two or more rows of apertures, *a a*, for the reception of tubes *b b*, which serve as guides and holders for the gripers. C C are the adjustable gripers. They are made in the form of cylindrical or prismatic rods, with hooks *d d* at their outer ends. The shanks of the gripers are fitted

into the tubes *b* and ride on cams D D, which are mounted upon the shaft B. Spiral or other springs *e* act against the gripers, tending to draw them inwardly against the cams. Whenever the ends of the griper-shanks arrive at the depressed portions of the cams the griper-hooks *d* are drawn against the circumference of the cylinder to hold and retain the paper till the projecting parts of the cams raise the gripers and release the sheet. All the gripers of one set are in one row, the tubes for guiding them being screwed into one set of holes. The second set of gripers on the same cylinder may be of the same kind above described; or it may, as in Fig. 1, consist of cranks *f f* on a vibrating rod, *g*, which is pivoted to the cylinder, similar to or identical with the gripers in common use. The distance between the two sets of gripers can be varied by screwing the tubes *b* and their contents into another row of holes.

By this invention two-feeder cylinder-presses can be adapted for use on sheets of suitable sizes, whereby the scope of their usefulness and their consequent value will be greatly increased. The shaft B may be made to rotate if the cams are mounted upon a tube embracing the shaft but not revolving on it. The apertures in the cylinder not filled by the tubes *b* can be closed by means of suitable plugs, which will leave the printing-face of the cylinder smooth and solid. These plugs may be applied or fastened from the inner side, and fixed in suitable manner.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The printing-cylinder, perforated in rows to receive adjustable gripers, as set forth.
2. The radial gripers C C, riding on cams D and guided in movable tubes *b*, substantially as herein set forth and described.

VICTOR E. MAUGER.

Witnesses:

A. V. BRIESEN,
GEORGE W. MABEE.