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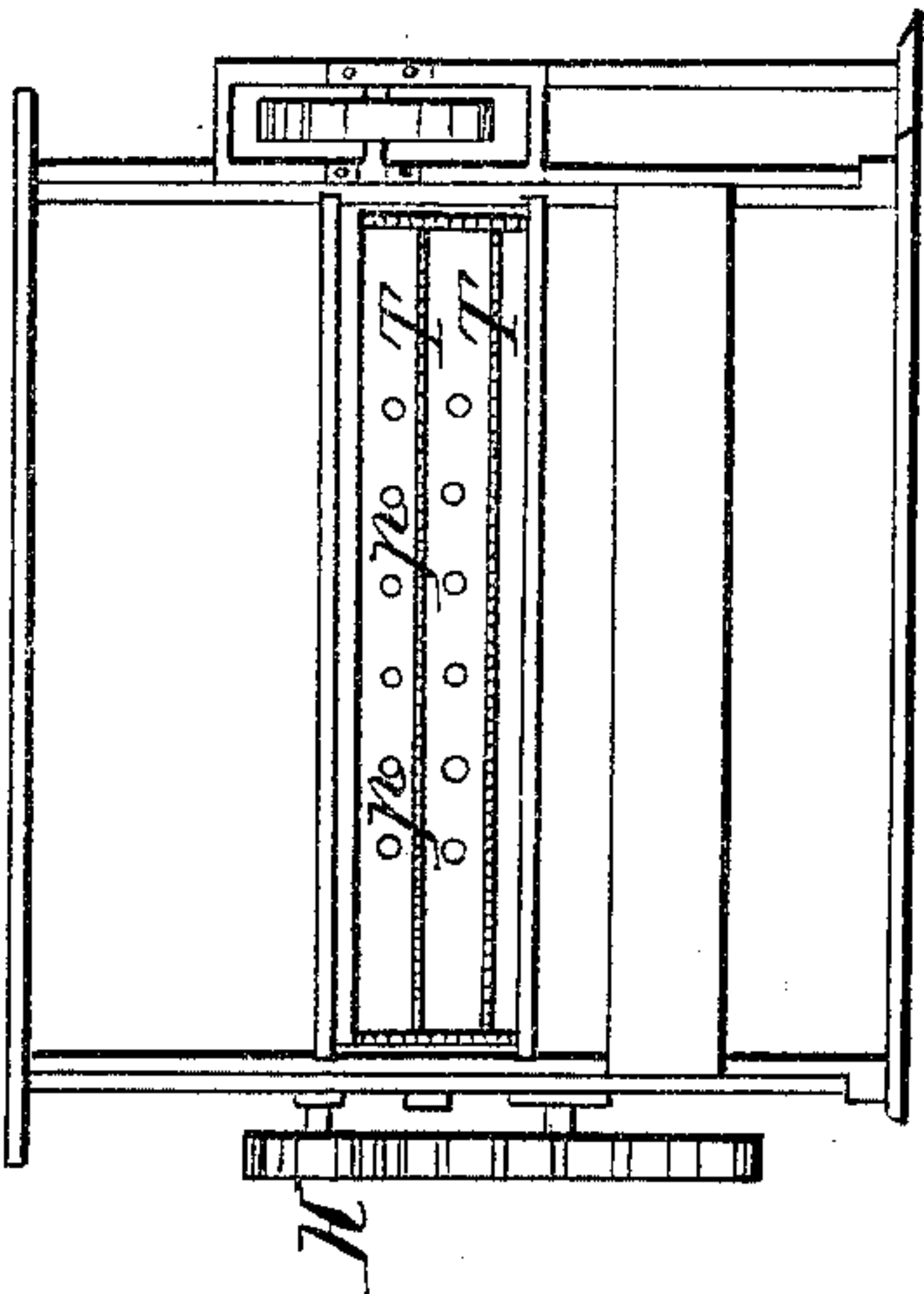
*B. D. Gillett.*

*Cotton Ginn.*

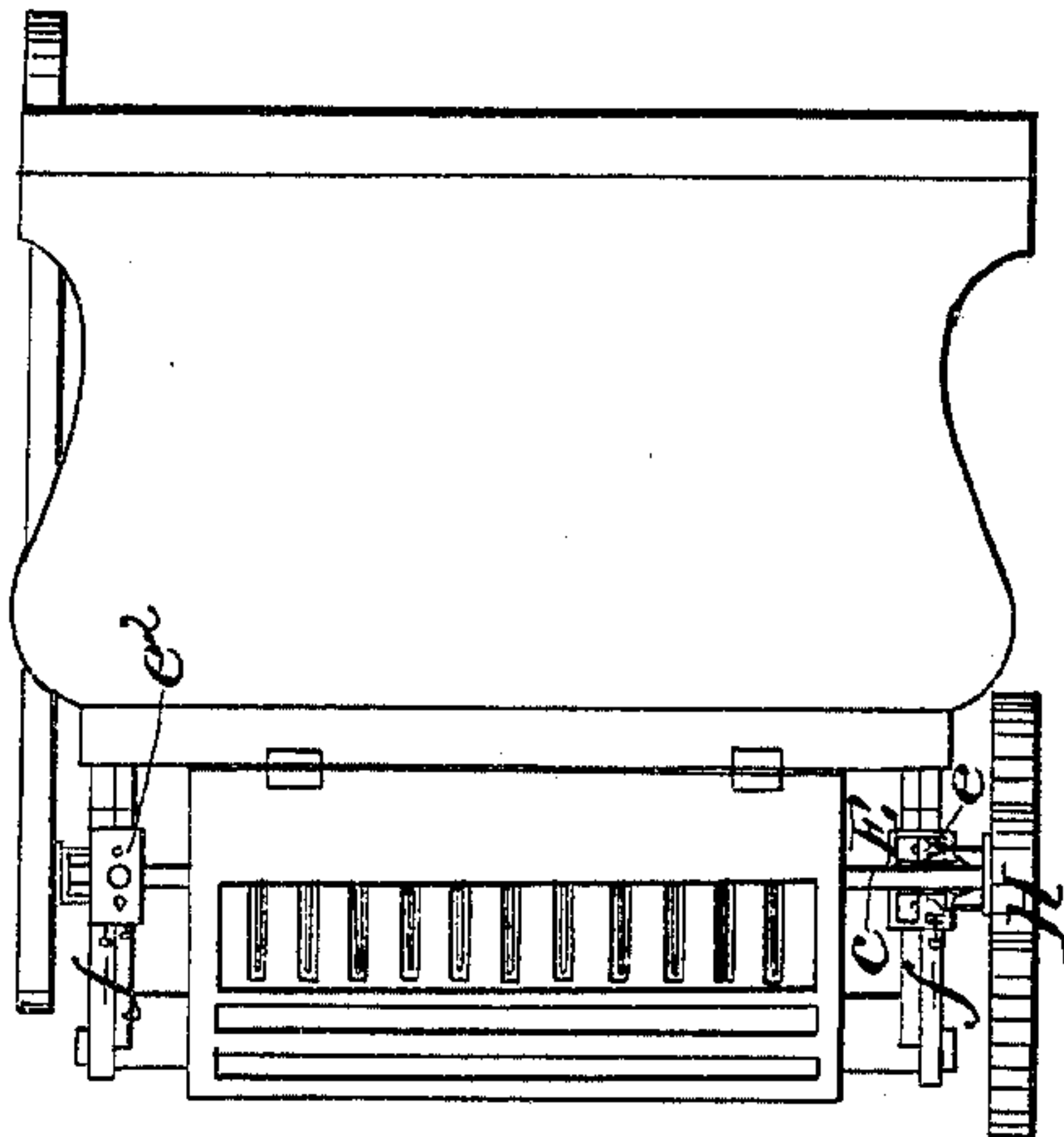
*N<sup>o</sup> 94,488.*

*Patented Sept. 7, 1869.*

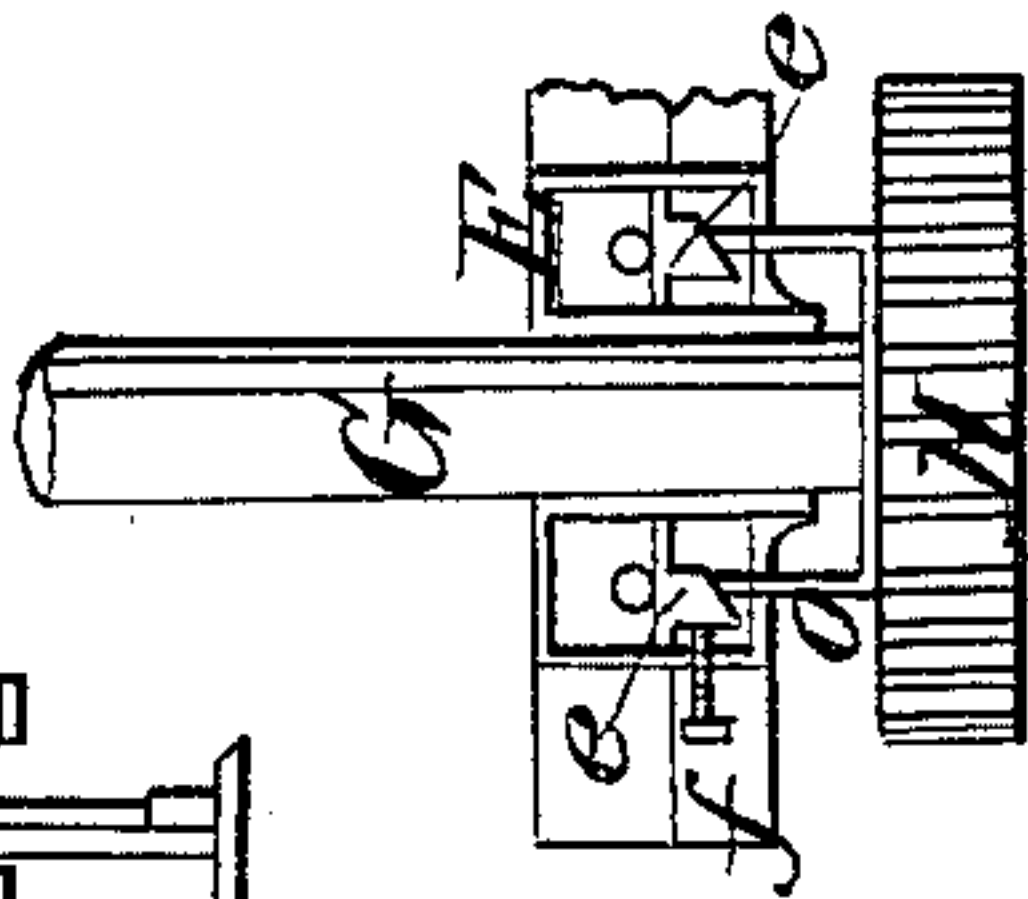
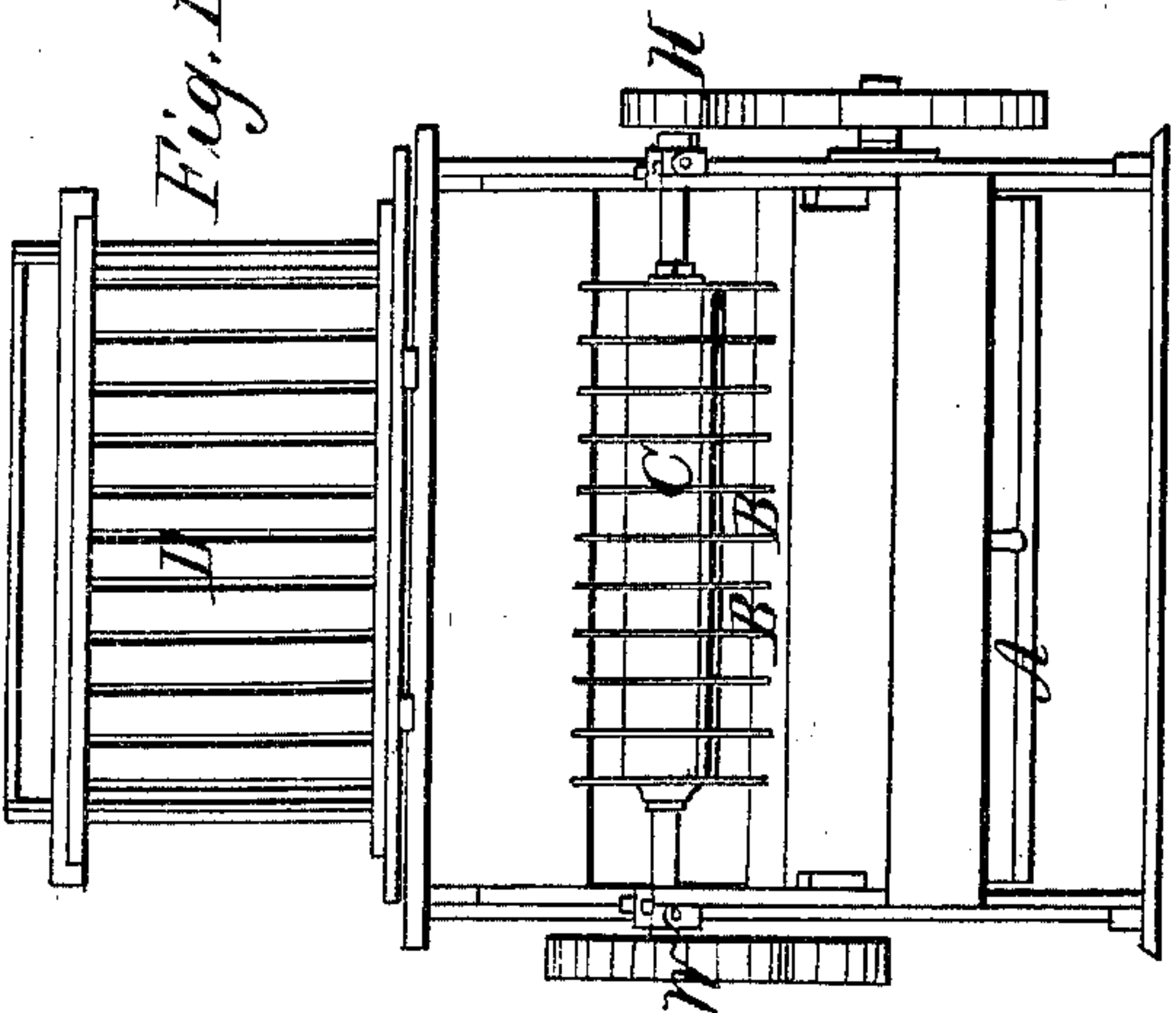
*Fig. 3*



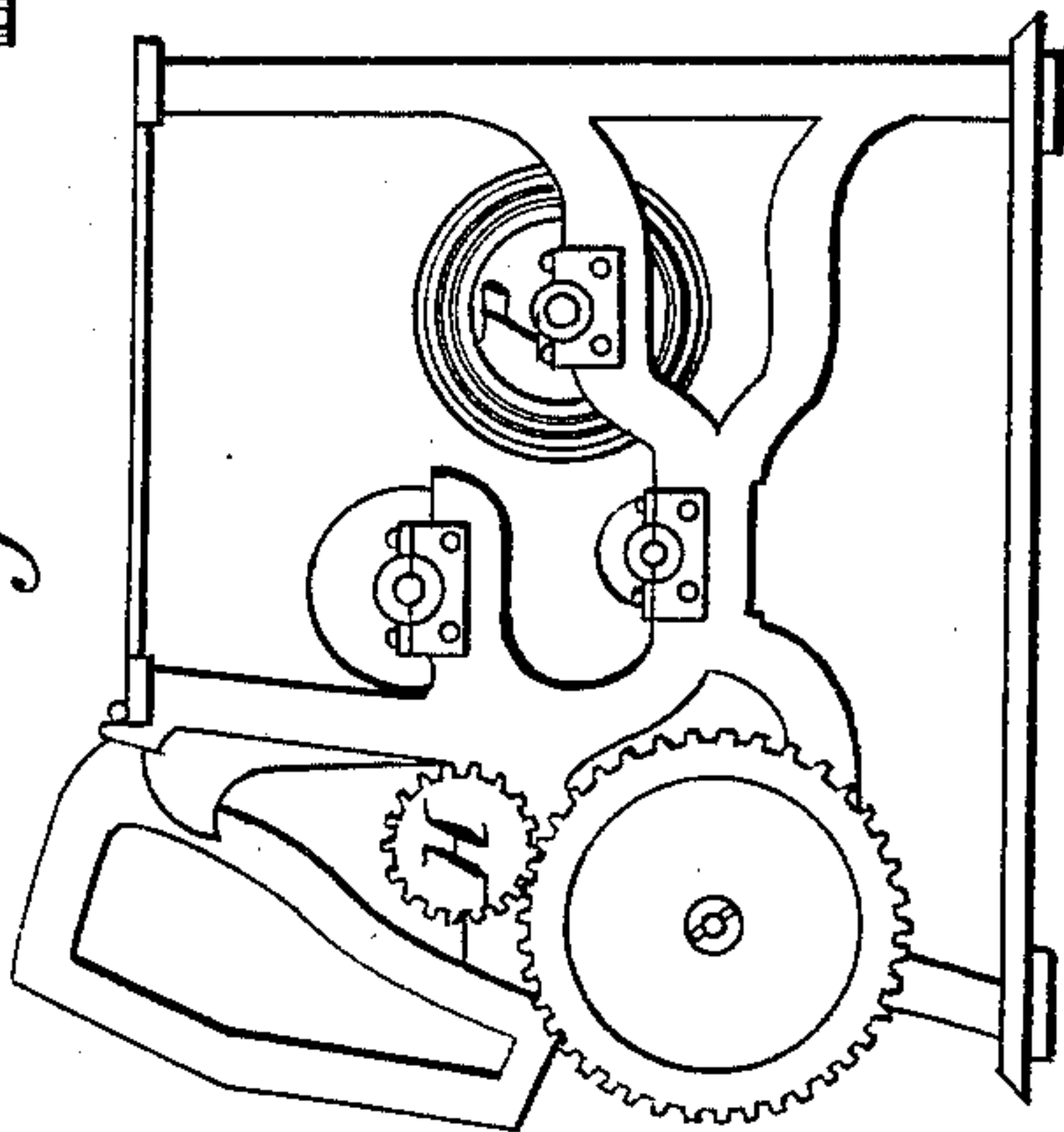
*Fig. 2*



*Fig. 1*



*Fig. 4*



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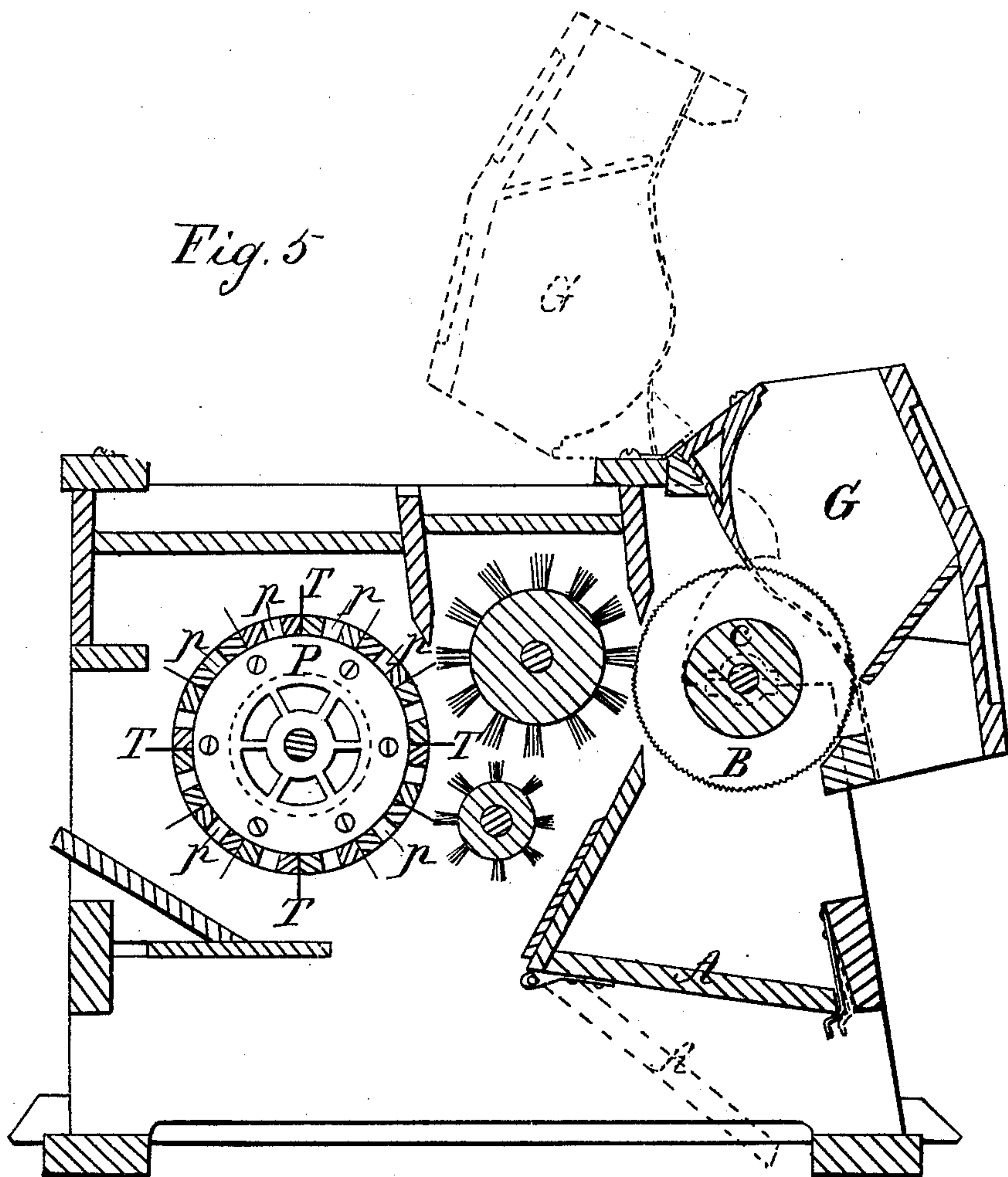
*Sheet 2-2, Sheets.*

*Cotton Gin.*

*N<sup>o</sup> 94,488.*

*Patented Sep. 7, 1869.*

*Fig. 5*



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# United States Patent Office.

BENJAMIN D. GULLETT, OF AMITE CITY, LOUISIANA.

Letters Patent No. 94,488, dated September 7, 1869.

## IMPROVEMENT IN COTTON-GINS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, BENJAMIN D. GULLETT, of Amite city, parish of St. Helena, Louisiana, have invented, made, and applied to use, certain Improvements in the Construction of Cotton-Gins; and I do declare that the following is a full, clear, and correct description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a view of the forward end of the machine, showing the hinged drawer applied to the same.

Figure 2 is a view of the means employed by me, for adjusting the shaft supporting the circular saws.

Figure 3 is a view of the rear end of the machine, showing the perforations in the main cylinder.

Figure 4 is a side view of my improved cotton-gin, showing the hollow cylinder employed by me.

Figure 5 is a longitudinal vertical central section of the gin.

In the drawings, like parts of the invention are designated by the same letters of reference.

The nature of the present invention consists—

(a,) in combining with a cotton-gin a hinged drawer, to receive the dust or other foreign matter that may be separated from the cotton as it passes between the circular saws and the revolving brushes.

(b,) in a novel means of adjusting the shaft supporting the circular saws.

The object of the invention is to provide a receptacle for the dust, dirt, or foreign matter that may be separated from the cotton during the "stripping"-process, to enable the operator to readily correct any "loss motion" incident to the shaft supporting and carrying the same; and, finally, to expedite the delivery of the ginned cotton from the machine, as more fully hereinafter described.

As my improvements only relate to the points just recited, I will describe them, so that those familiar with the construction of cotton-gins may make and use them.

The first point is the application of a drawer or shelf, to receive the dust or foreign matter that may be separated from the cotton during the stripping-process.

This drawer, which is designated as A in the drawings, is placed directly beneath the circular saws B, held and carried upon the shaft C.

This drawer occupies an inclined position at the front end of the machine, and is hinged, at its upper end, so as to be lowered or dropped when desired, and when placed in position is secured there by a spring-catch bearing upon its forward end. It is placed directly beneath the circular saws, so that all dust, dirt, or foreign matter, that may be separated from the

cotton by the passage of the same between the bars D and the saws, may be received by it and not follow the fibre through the machine.

The addition of a drawer, so constructed and operated, will be found a feature of great utility in a cotton-gin.

I will now speak of the second feature of my invention, namely, the means of correcting any "loss motion" that may attend the working of the shaft C, supporting and carrying the saws B.

This shaft C is supported in boxes E, secured upon the frame of the machine, and frequently it becomes necessary to set the shaft C so that the saws B shall enter the spaces between the bars or strips of metal D, supported within and forming the bottom, so to speak, of a cover, G.

The saws, from loss motion, sometimes have their position changed, and it is to correct and adjust them that the second feature of my invention relates to.

Within the boxes supporting the shaft, I place plates of metal provided with the wedges  $e$  and  $e^2$ , and in the sides of the boxes are inserted the set-screws  $f$ , the forward ends of which bear against the wedges  $e$ , so that when operated from the outside, they will move forward or advance the wedges  $e$  and  $e^2$ .

Over the shaft is passed a plate of metal,  $o$ , the face of which, in one case, bears directly against the pinion H, while its lower portions are bent inward, and inserted within the boxes, so that they shall have a bearing upon or against the wedges  $e$  and  $e^2$ .

As the screw is advanced, and, in turn, advances the wedges  $e$  and  $e^2$ , the plate of metal  $o$  is thrown out, and, bearing against the pinion H, throws the same out also, the pinion, being secured firmly upon the shaft, carries the same with it, until the saws are brought into their proper position relatively to the bars or strips of metal D. If the adjustment is to be in the opposite direction laterally, the screw upon the opposite side is manipulated, and the plate, in this case, bearing against the blank-wheel W, secured upon the shaft C, the same carries with it laterally the shaft C. Thus, it will be seen that the adjustment laterally of the shaft C can be readily accomplished, which will be found advantageous in many cases.

The last feature of the invention consists in the means used by me to expedite the delivery of the cotton from the machine, after it has passed through the final process of cleaning, which is done between the brushes and the horizontal saws upon the hollow cylinder P.

This consists in providing the cylinder P with a series of perforations,  $p$   $p$ , upon its face and between the horizontal saws T. The cylinder P, thus perforated, acts, when in revolution, as a suction-fan, of



which the horizontal saws T form the wings. Its operation is to draw in air through the open ends of the cylinder, and force it out through the perforations *p*, &c., in currents which blow the cleansed cotton fibre before them into a proper receptacle. Thus, as the cotton is delivered from contact with the brushes and horizontal saws, the currents of air that issue from the perforations upon or in the face of the cylinder carrying the horizontal saws, blow the fibre into the receptacle placed at its rear end, from which it may be removed at pleasure.

The accompanying drawings show a cotton-gin made in accordance with Letters Patent previously granted me, reference to which may be had that the construction and operation of the entire machine may be understood, the present application only being made by me to protect the new features herein described.

The addition of these features to the cotton-gin al-

ready patented by me, increases the value and utility of the machine very greatly.

Having thus described my improvements,

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

1. Combining, with a cotton-gin, a drawer, hinged and secured as shown, for the purposes herein fully set forth.

2. In combination with the shaft supporting the same, the boxes, sliding plates provided with the wedges, set-screws, and plates of metal, constructed and operating substantially as and for the purposes set forth.

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