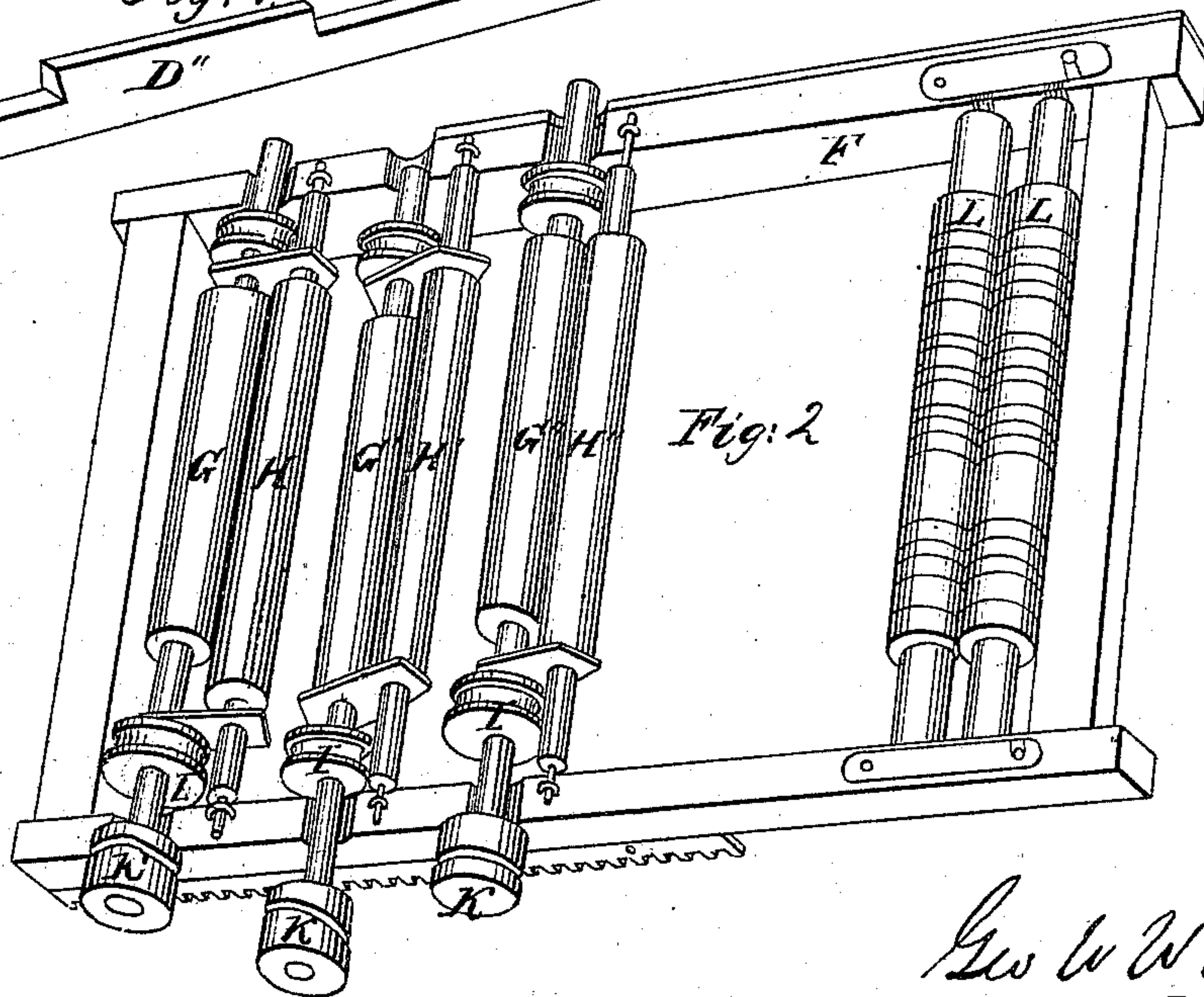
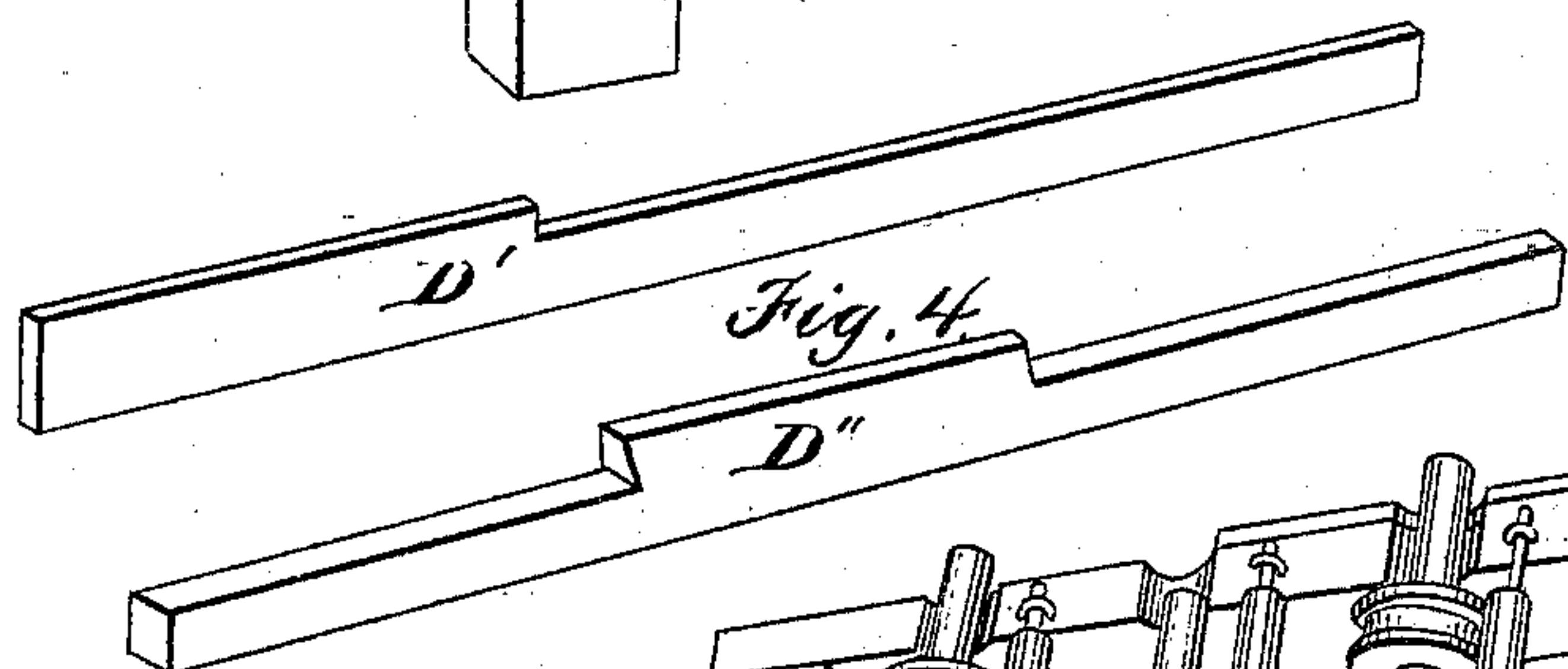
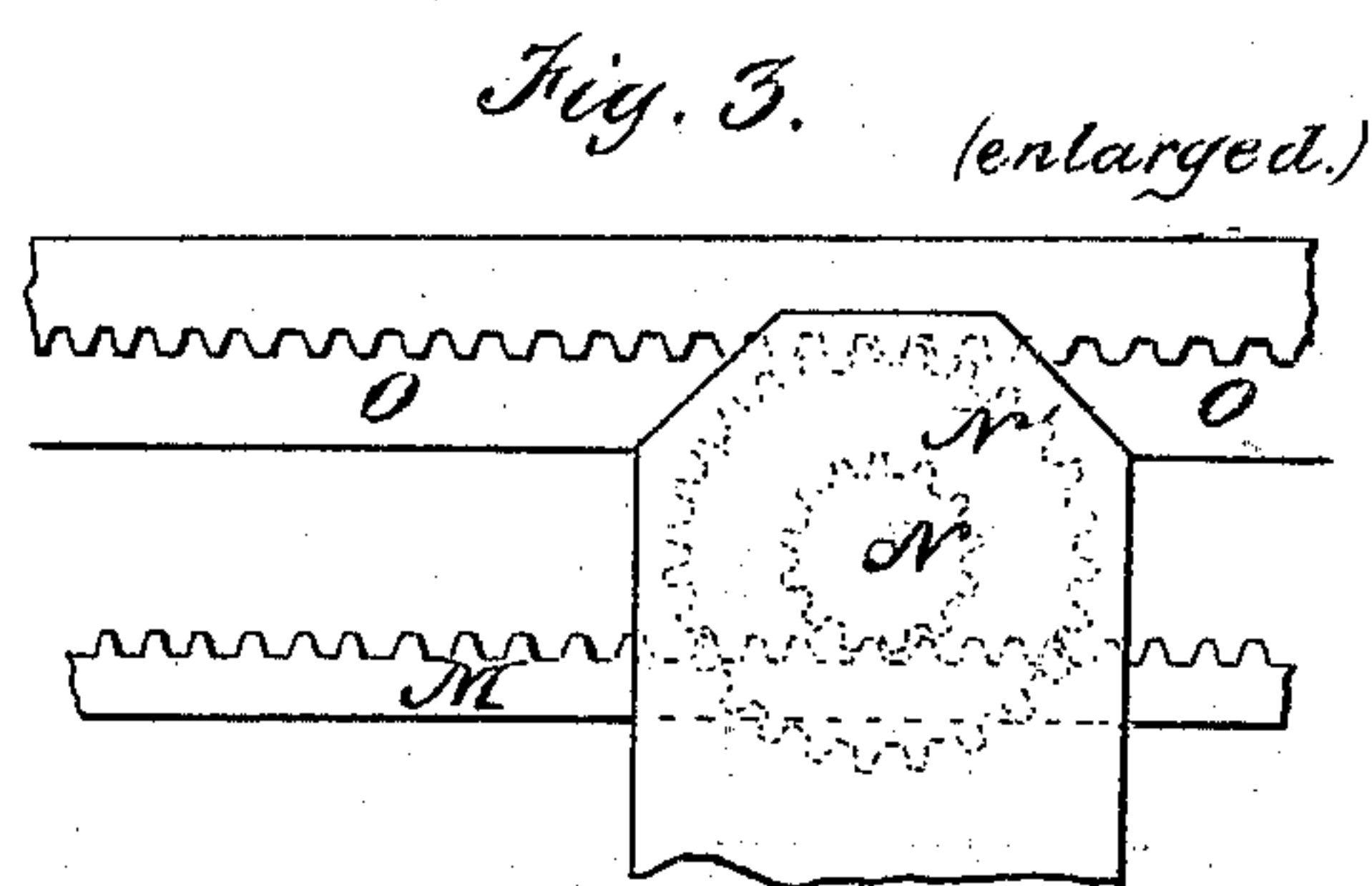
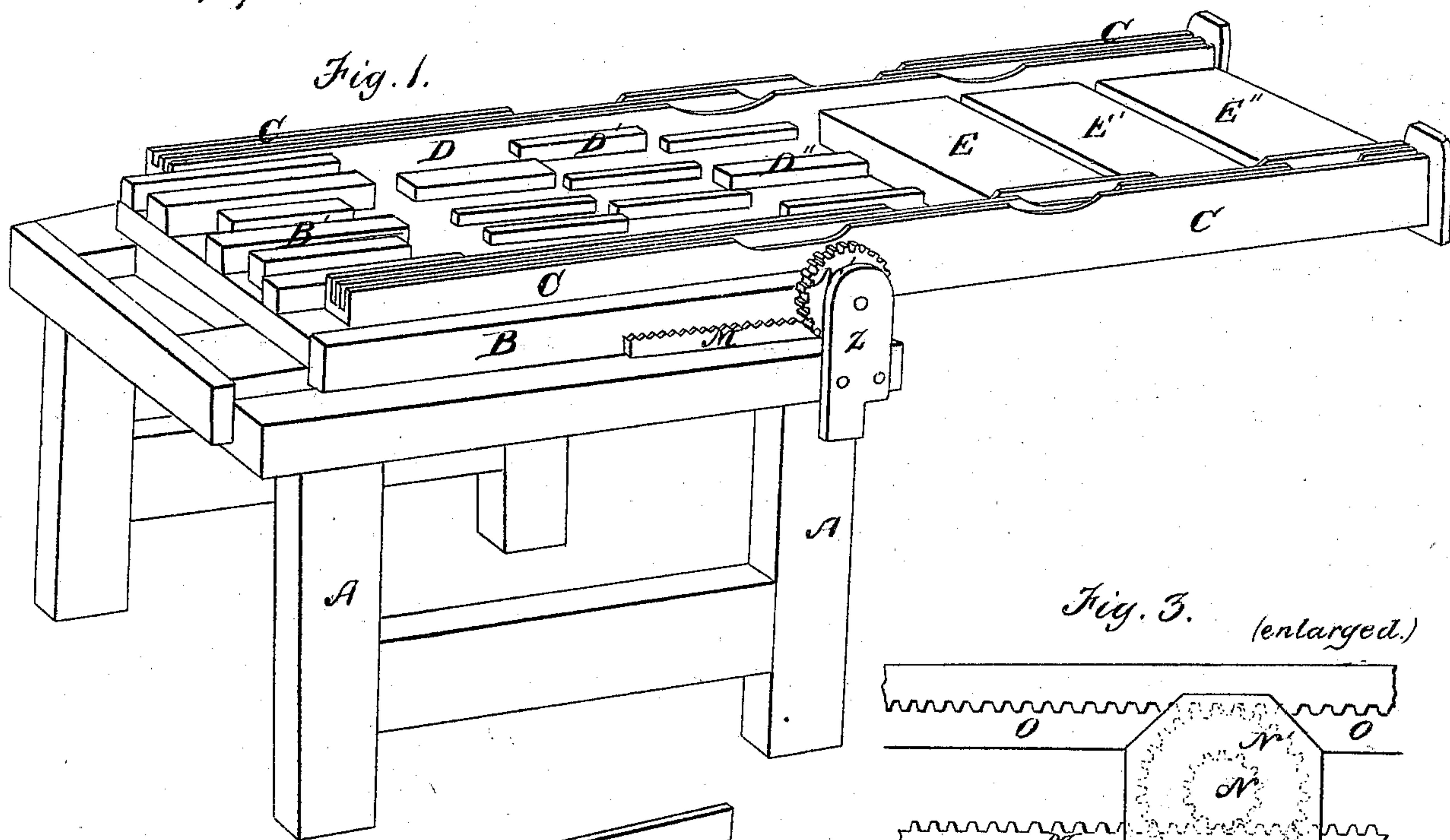


G. W. Wood.
Inking App's for Color Printing.
N^o 79,043. Patented Jun. 16, 1868.



Witnesses
Chas. F. Clausen.
Wm. W. Dumbley.

G. W. Wood
Inventor
by D. P. H. May Jr.
his atty

United States Patent Office.

GEORGE W. WOOD, OF RICHMOND, INDIANA, ASSIGNOR TO HIMSELF AND
JAMES W. SLATER, OF SAME PLACE.

Letters Patent No. 79,043, dated June 16, 1868.

IMPROVEMENT IN INKING-APPARATUS FOR COLOR-PRINTING.

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, GEORGE W. WOOD, of Richmond, in the county of Wayne, and State of Indiana, have invented a new and useful Improvement in Inking-Apparatus for Printing in more than one Color; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a perspective view of the frame and bed.

Figure 2 is a perspective view of the inking-rollers and frames attached.

Figure 3 is a side elevation of the operating-mechanism, and

Figure 4 shows the tablets for receiving the ink from the distributing-rollers.

The same letters are employed in all the figures to indicate the same parts.

This invention is intended for application especially to cylinder job-presses, but is also readily adapted to what is commonly known as the "Adams book-press."

A represents the frame of the press; B is the reciprocating bed, the form being placed on it at B'.

On each side of the bed are placed the permanent ways C. The adjustable inking-tablets, D D¹ D², constructed as shown in fig. 4, are also placed on the reciprocating bed, being properly adjusted in sets parallel with one another, corresponding with the number of colors to be printed, each set receiving one color, and they being respectively disposed, according to the colors intended to be printed, upon the lines of type with which they correspond.

The ink is received from the distributing inking-tables E E¹ E², also resting on the bed B. Instead of these tables, inking-fountains may be used, which would be attached to the ways C.

F is the frame of the inking-rollers, supported on the ways C. H, H¹, and H² are the hard inking-rollers, which, if fountains are used, would receive the ink. G G¹ G² are the distributing-rollers, which rest upon grooved pulleys on their shafts, running on the ways C.

The number of these parallel ways on each side corresponds with the number of distributing-rollers, so that each shall run on its own track.

The shafts of these rollers pass through eyes in the pulleys, allowing them longitudinal reciprocating movements, received from the spirally-slotted cams K in the usual manner.

In order that each distributing-roller shall receive its own appropriate color, depressions are formed in the ways, opposite the ends of the inking-tables E E¹ E², from which the several rollers are respectively to receive their color, so that in traversing the ways, each roller shall be brought into contact with the face of its own table, and pass over the others without touching them. In the same manner, depressions are formed in the ways opposite the inking-tablets D D¹ D², so that the roller intended to communicate its color to the set of tablets shall come in contact with their faces, and pass above the others without touching them. By this means each distributing-roller receives only its own color, and transfers it to its own set of tablets. The type-inking rollers L L, attached also on the frame F, traverse the length of all the tablets twice, receiving from them the colors disposed on said rollers in bands corresponding with the lines of type to which said colors are respectively transferred.

In the ordinary inking-apparatus of this class for printing in one color, the inking-rollers are stationary, and the bed has a reciprocating motion over a space about two and a half times the width of the form. In order to make the traverse necessary for the increased length incident to this apparatus, it is necessary to communicate a reciprocating motion to the rollers at an accelerated speed. This is effected by the following mechanism:

The bed receiving its reciprocating motion in the usual manner, a rack, M, attached to the side of the bed, meshes into a small pinion, N, formed on the hub of the larger pinion, N', which meshes into a rack, O, on the side of the roller-frame F, so that as the bed moves in one direction, it drives the roller-frame at an accelerated speed in the opposite direction.

This compound pinion turns upon a spindle upon the upright Z, secured firmly to the frame of the press. It has no motion of its own, except that of revolution.

This arrangement of mechanism saves most of the power which would be necessary to move the heavy bed with the form over a greatly-increased space.

The rollers H H¹ H² have their bearings on the frame F, the rollers G G¹ G² have theirs on the ways C, being connected with the shafts of the rollers H H¹ H² by oscillating-arms, through which the journals of both rollers pass, so as to allow the rollers G G¹ G² to accommodate themselves to the irregularities in the face of the ways.

A rack may be attached to the ways C, to gear into pinions on the shafts of the rollers H H¹ H², to communicate a positive motion to the rollers.

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

1. The combination of the reciprocating bed B, ways C, adjustable tablets D D¹ D², and rollers G G¹ G², substantially as described.

2. The combination of the reciprocating bed B and roller-frame F, so connected by intermediate mechanism that the movement of the former shall communicate motion to the latter in an opposite direction, substantially as and for the purpose set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. W. WOOD.

Witnesses:

JOHN S. HOLLINGSHEAD,

JOHN D. BLOOR.