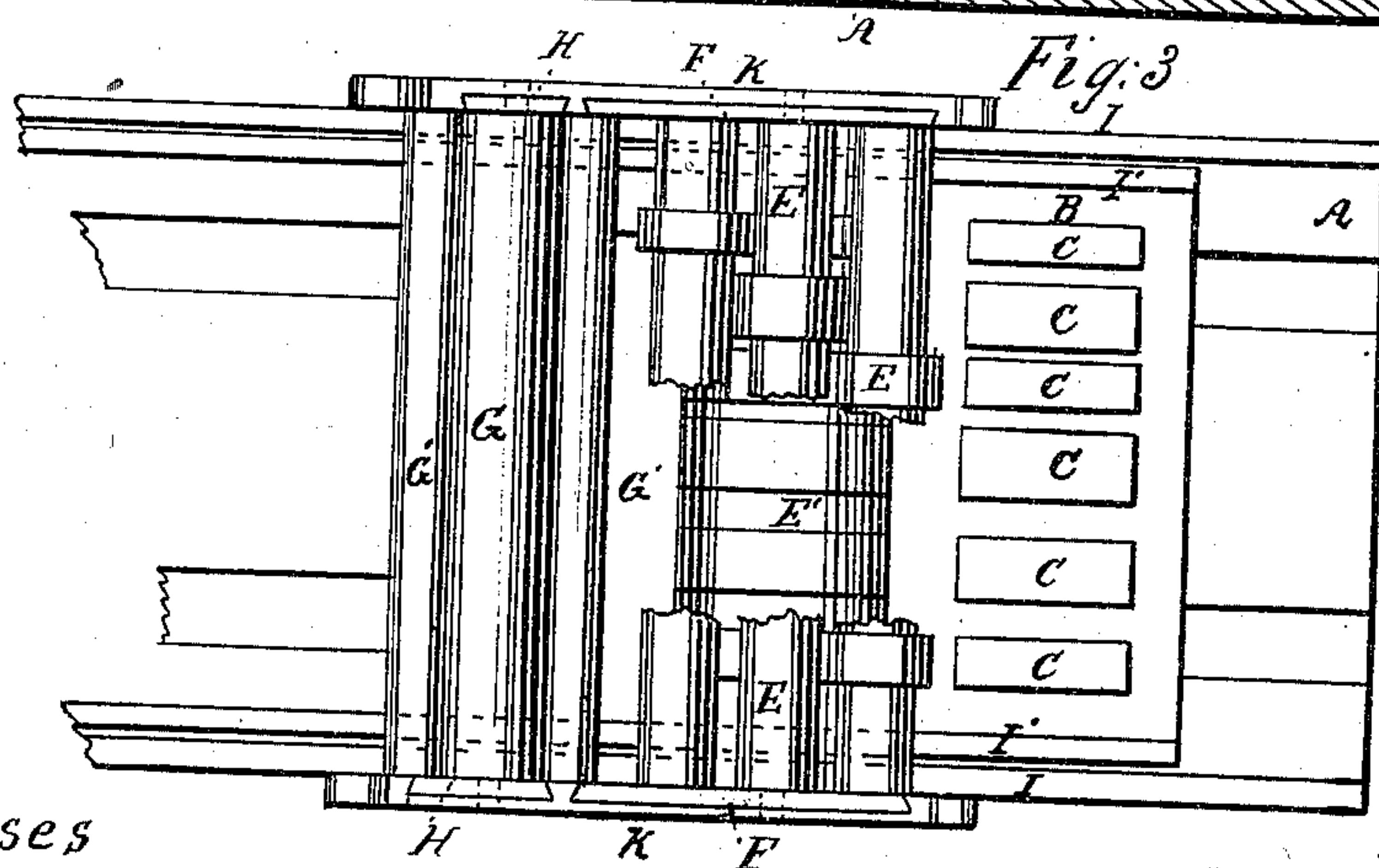
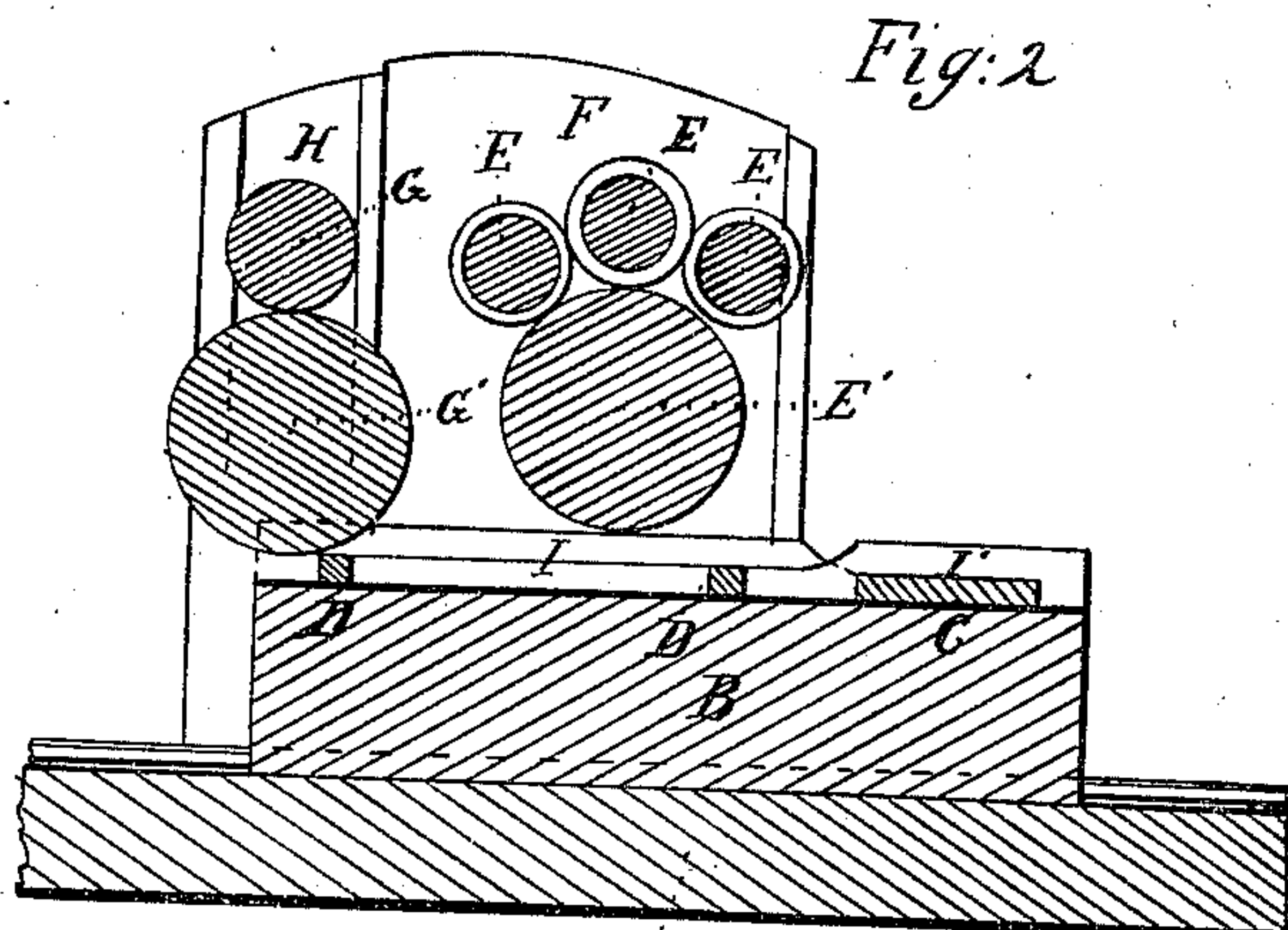
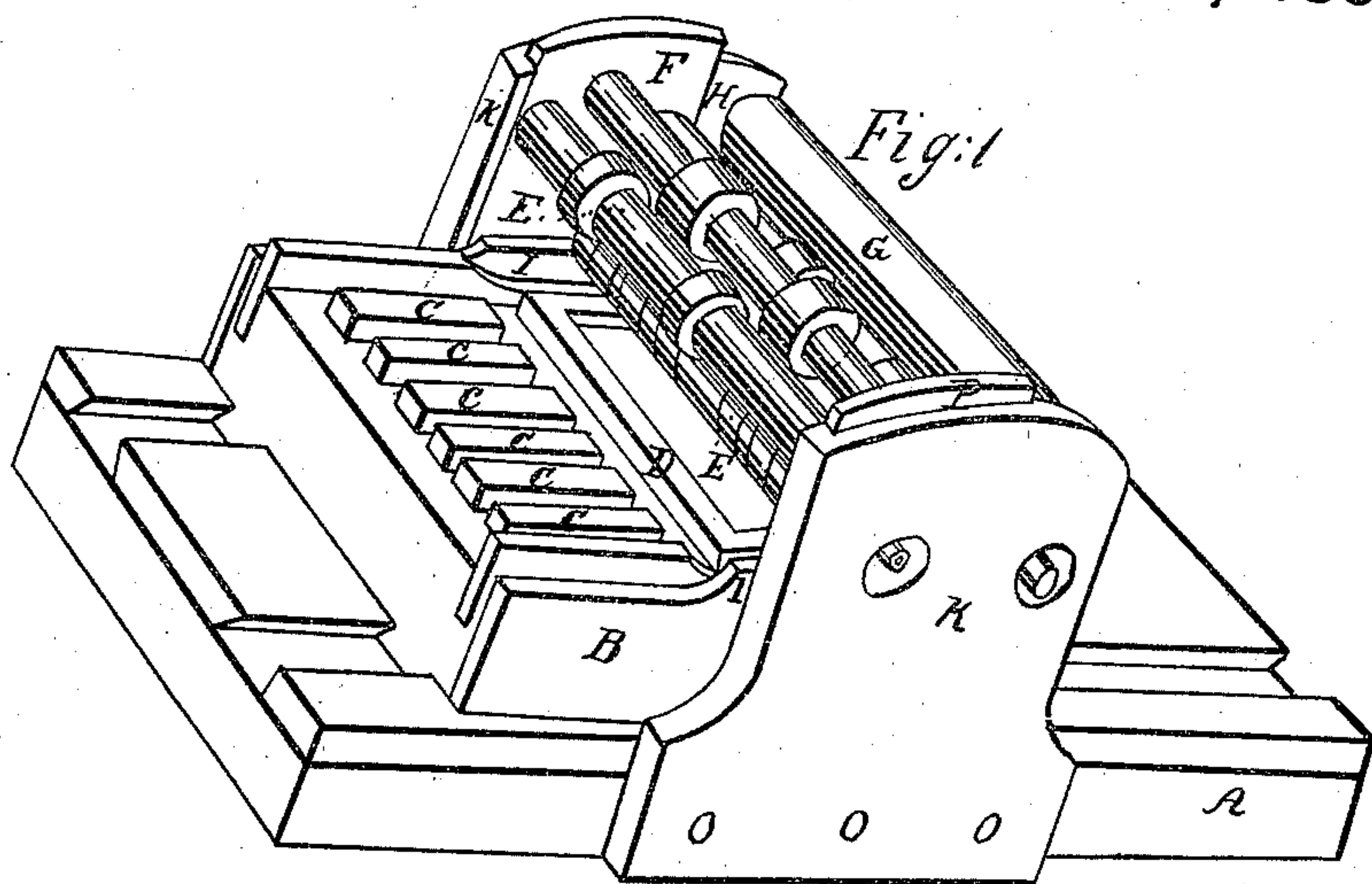


J. Hunt.
Inking App's. for Color Printg.
N^o 79910. Patented Jul. 14. 1868.



Witnesses
A. N. Ogley
E. F. Clausen

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Joshua Hunt
by
D. C. Holladay & Co
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United States Patent Office.

JOSHUA HUNT, OF RICHMOND, INDIANA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE AMERICAN PATENT CHROMATIC-PRINTING-PRESS COMPANY.

Letters Patent No. 79,910, dated July 14, 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, JOSHUA HUNT, of Richmond, in the county of Wayne, and State of Indiana, have invented a new and useful Improvement in 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.

Figure 2 is a vertical transverse section.

Figure 3 is a plan.

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

My improvement relates to an apparatus for printing, in more than one color, jobs in which the letter-press portion of the job is printed in several colors, and a border is printed in one color.

My invention consists in combining, with the type-bed of a press, two forms, one form to be printed in several colors, and the other to be printed in only one color, and inking-rollers so arranged that the several inks shall be disposed in bands upon the roller or portion of a roller, by which the varicolored inks are to be transferred to the lines of type, and a single color be transferred to the roller or portion of a roller from which the other form is to receive its ink, so that by using a double sheet, and reversing it, or changing the position of the forms after one impression is taken, two complete jobs may be printed at two impressions.

The following description will enable persons skilled in the art to construct and operate my improved apparatus.

In the annexed drawings, A is the bed of the press, on which the type-bed B slides in grooves, receiving a reciprocating motion in the ordinary manner. This bed is formed to receive two forms, C and D, of which the former contains the type intended to print the letter-press part of the job, and the other is the border, the forms being placed successively on the bed, as shown.

It is desirable to print the border in one color, while the type receives several colors. I employ for this purpose two independent sets of rollers. One set of distributing-rollers E are constructed upon the plan set forth in George W. Wood's and Wood and Baylis's patent. Each distributing-roller receives a single color, which it transfers to the type-inking roller E'. The ink thus received in bands upon the type-inking roller is transferred to the type according to the design, as the type, in passing, are brought into contact with the inking-roller E'. The border to be printed in one color receives that color from a type-inking roller, G', which receives a single color along its entire length from the distributing-roller G.

In order that each type-inking roller may come into contact only with its own proper form, the journals of the rollers E and E' are all set in one sliding frame F, which moves freely, vertically, in dove-tailed grooves in the side standards K. The journals of the rollers G and G' are in like manner set in a similarly-arranged frame, H. Two parallel cam-tracks, I I', are attached to the side of the type-bed B. There are wheels on the ends of the rollers G, in line with the track I, and other wheels on the roller E', opposite the track I'. The tracks are cut away alternately, each along one-half the length of its face, so that as the bed-plate B moves towards the roller, the raised portion of the track I', encountering the wheel on the roller E', the latter and the other roller of that set, attached to the same sliding frame, will be raised, and the border-form will pass under the roller E' without touching the same. As soon as this form has passed, the wheels on the roller E' drop on to the lower portion of the track I', which brings this roller upon the face of the type to be printed in several colors. The reverse action takes place with regard to the border-form. The roller G' is allowed to come in contact with it, while the roller E' is raised above it. In this manner, at one movement of the type-bed B, the two forms are inked. An impression is then taken on a sheet of double the intended size, on one end of which will be printed the letter-press portion of the job, and on the other a border. The forms are then to be again inked, and the sheet reversed, and another impression printed, so that the letter-press work shall be

printed within the blank border of the first impression, and the border be printed around the letter-press work. In this manner two complete jobs may be printed at two impressions.

It may be desirable to set up part of the type for the letter-press in the same form with the border, where such part of the job is to be in the same color with the border. In such case, when the sheets have been run through once, the forms are to be reversed on the type-bed, and the cam-tracks, which must be made adjustable, changed so as to reverse the order of action on the rollers.

My invention is distinguished from all other inking-apparatus in this, that I combine in one apparatus two type-inking rollers or portions of rollers, one of which receives the color in bands, and the other receives a single color, whereby I am enabled to print borders in one color, and letter-press in several colors, making only the same number of impressions as there are to be finished sheets of the job printed.

In Wood's, and Wood and Baylies, and Baylies apparatus, there are only the type-inking rollers arranged to receive the color in bands, and with that apparatus it is impossible to print the borders in one color at one impression, with the letter-press in colors.

In Montagu's apparatus, as many forms of type are required as there are to be colors in the job when finished.

Printing in two colors, at two impressions, by reversing the sheet after making one impression, is not new; but in such case the type for the letter-press is subdivided into different forms, and no provision made for printing the letter-press at one impression in several colors and the border in one color. In that, as in Montagu's, each form receives but one color.

The novelty in my improvement is in the combination which enables me to print the letter-press part of the job at one impression in several colors, and at the same time to print the border in one color.

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

The combination of the type-bed B, the two forms, and the type-inking rollers E' G', and the adjustable cam-tracks I I', when so constructed and arranged in relation to the ink-distributing rollers, that different-colored inks, first disposed in bands on the type-inking roller, or on part thereof, shall be transferred simultaneously to the lines of type, and a single color be also transferred to the other form, so that by two impressions, the sheet or the form being reversed, two completed jobs may be printed in which the letter-press is printed in more than two colors, and the border in one color, substantially as set forth.

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

JOSHUA HUNT.

Witnesses:

J. E. BEVERLY, Jr.,

THOS. W. FLEMING.