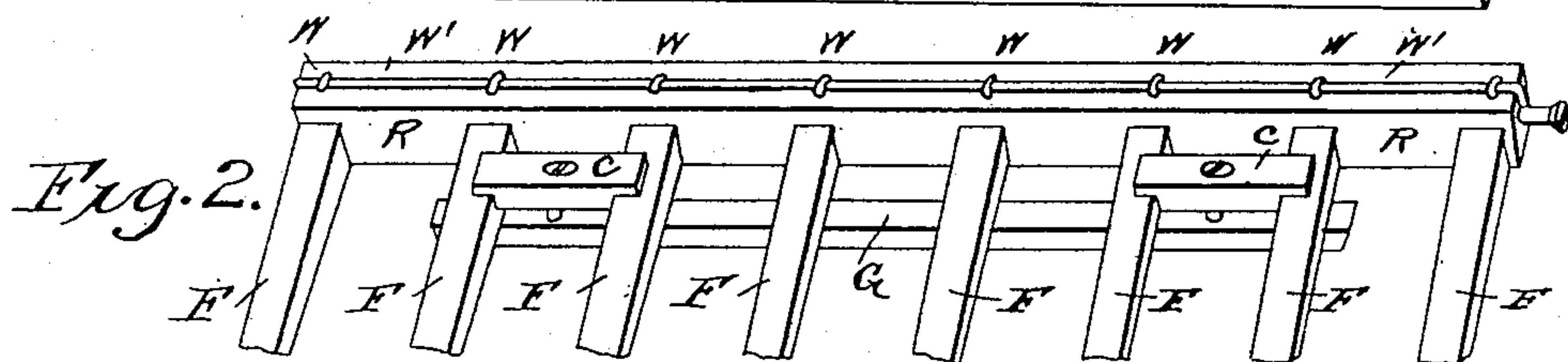
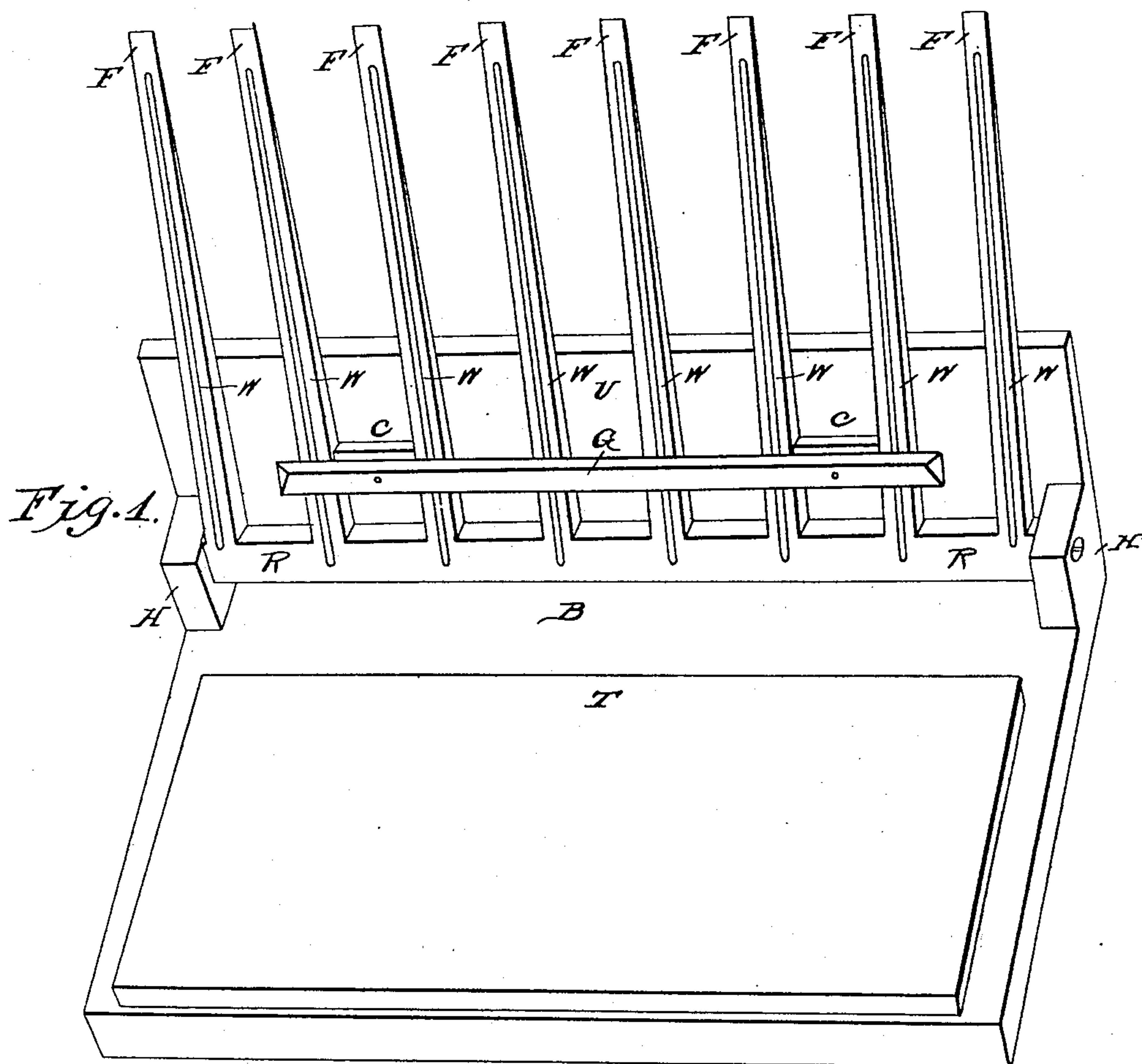


FLY FRAME FOR PRINTING PRESSES.

No. 90,114.

Patented May 18, 1869.



Witnesses  
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# United States Patent Office.

THEODORE H. MEAD, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 90,114, dated May 18, 1869.

## IMPROVEMENT IN FLY-FRAMES FOR PRINTING-PRESSES.

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, THEODORE H. MEAD, of Boston, in the county of Suffolk, and State of Massachusetts, have made certain new and useful Improvements in Fly-Frames for Printing-Presses; and I do declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a perspective view of the fly-frame and the base to which it is hinged, with the fly standing nearly upright, showing its front side.

Figure 2 is a perspective view of the fly-frame detached from the base, showing its reverse side.

In these drawings—

B, fig. 1, represents the base of support of the fly-frame.

U is an upright from the base, against which the frame rests, inclined a little back from a vertical line when receiving the sheets from the tapes of the press.

H H, fig. 1 are blocks on the base, to which the fly-frame is pivoted, and upon which it swings from its upright position over to a position facing the table, which table is represented by T in fig. 1.

The fly-frame is formed of the fingers F F, &c., and the bar R, into which the fingers join and are firmly attached; the pivots of the blocks above mentioned entering the ends of the bar R of the frame.

Upon the fingers of the frame, and running lengthwise, are the wires or metallic rods W W, &c., fig. 1, one end of each of which passes through the bar R, and clasps on its reverse side a like rod, W' W', fig. 2, which runs lengthwise of the said bar R, and connecting with the pivots at the base, as seen at H, fig. 2, making an electric connection with the iron of the press.

Upon the fingers F F, &c., and on the side the paper slides from the tapes, is arranged the adjustable gauge G, with the set-clasps C C.

This gauge takes the lower edge of the sheet of paper, at whatever position up or down on the fingers its size may determine, so as to be laid upon the pile, at T, in the most regular manner.

As the movements of the frame are fixed, the gauge must be adjustable upon it.

This fly-frame is constructed, in the main, in the ordinary way in which fly-frames have long been used, with my improvement applied.

This original mode of construction is that of making the fingers and parts of the frame of strong, light wood; but the form in which the fingers heretofore have been made on the side which is presented to the

sheet, is a flat surface the whole width and length of the fingers, against which the paper, with its fresh ink, has to rub as it slides down on the fly from the tapes of the press, greatly increasing the chances of transferring the ink and smutting the paper.

These flat surfaces being also pressed down closely into contact with the sheet, as it is laid on the pile, and amounting in the aggregate to so much that when the fly is lifted upward from the pile it has a tendency to lift the sheet again by atmospheric pressure or "suction," so that the sheet is wafted about on the pile before it comes to a state of rest, producing a disorder in the pile, which is a serious inconvenience in the second laying of the sheet to be printed, and the cutting of the pile after printing.

These obstacles it is the purpose of my invention to overcome.

By applying wire rods lengthwise of the fingers upon the side the sheet slides, the bearing-surface, and the liability to rub against the ink are greatly lessened; and when the sheet of paper is laid on the pile, the air can the more easily flow in between the paper and the fingers, and the fly leave the sheet without disturbing it; and, furthermore, by means of a metallic connection between the wires on the fingers and the mass of iron of the press, an electric equilibrium is established between the paper and fly as soon as the paper reaches the latter, thereby allowing it to slide down on the rods more freely, and also with no electrical disturbance of the sheet at the pile.

The application of a conducting-rod, for the purpose of affecting the electrical condition of the paper and the fly-frame, is the subject of a former patent granted to me, and I do not here claim it.

I do not claim a fly-frame, made of wood, or other material; but

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

1. The fingers F F, &c., when the form of their faces is modified by the application of the rods W W, &c., substantially as described.

2. The combination of the adjustable gauge G with the fingers F F, &c., for the purpose described.

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

THEODORE H. MEAD.

Witnesses:

C. H. FLEMING,  
GEO. S. DANIELS.