

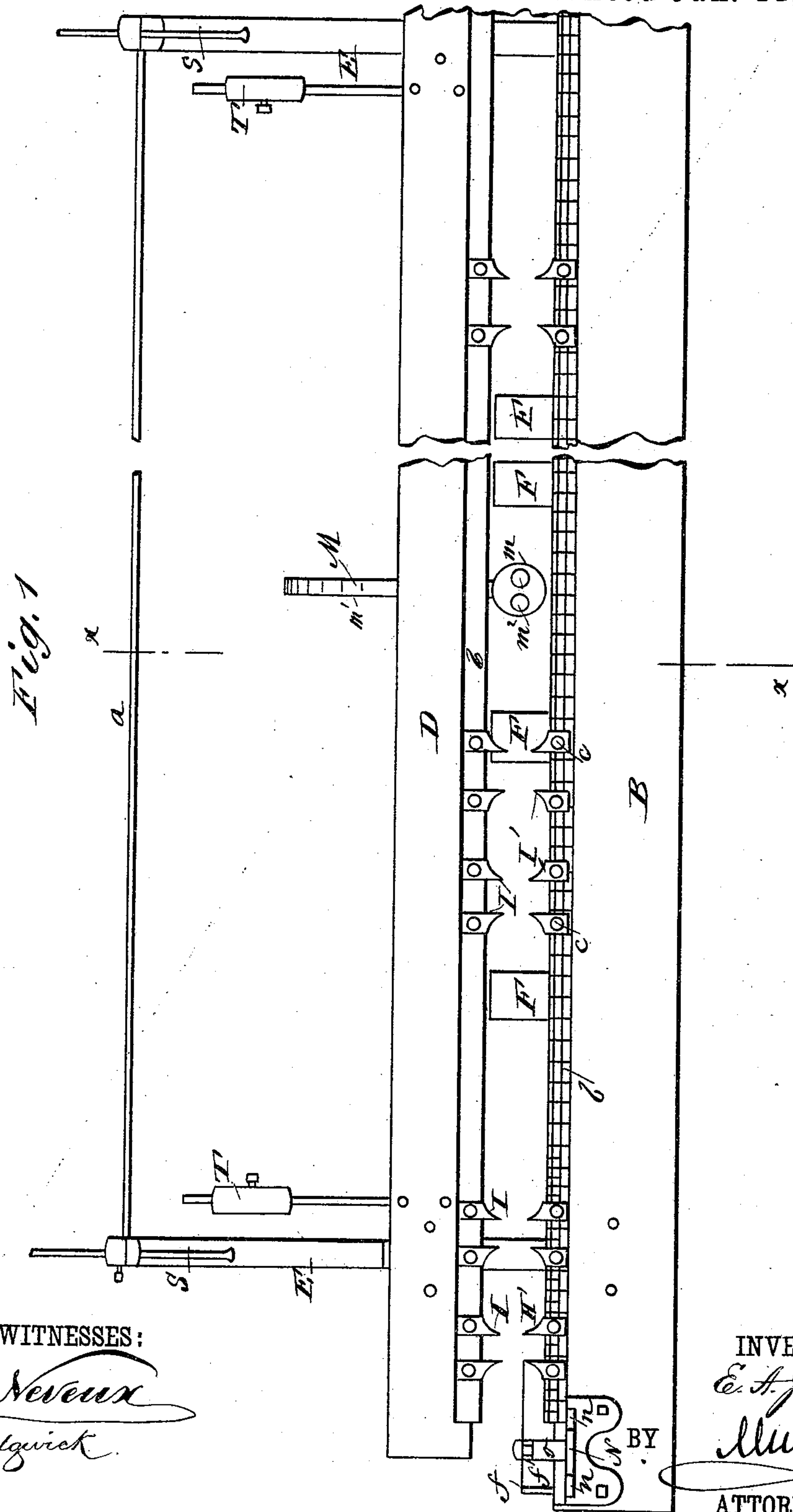
(No Model.)

3 Sheets—Sheet 1.

E. A. JEROME.
LAYING OUT MACHINE.

No. 355,937.

Patented Jan. 11, 1887.



WITNESSES:

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INVENTOR:

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(No Model.)

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Fig. 2

Fig. 3

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Fig. 6

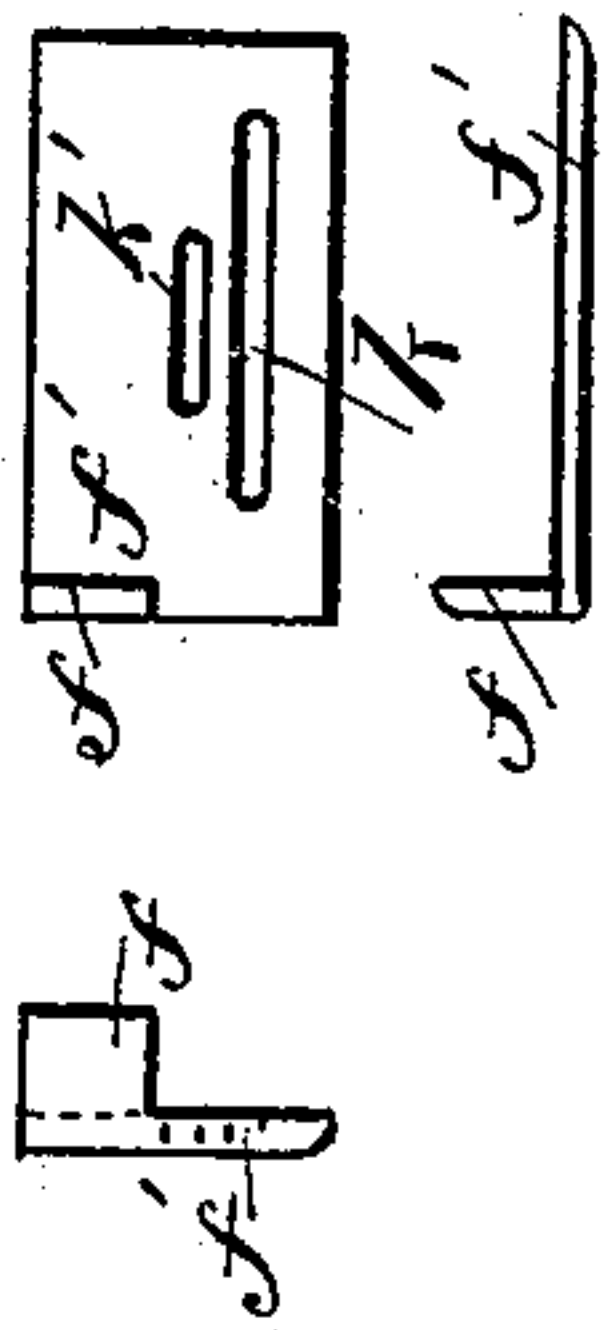


Fig. 5

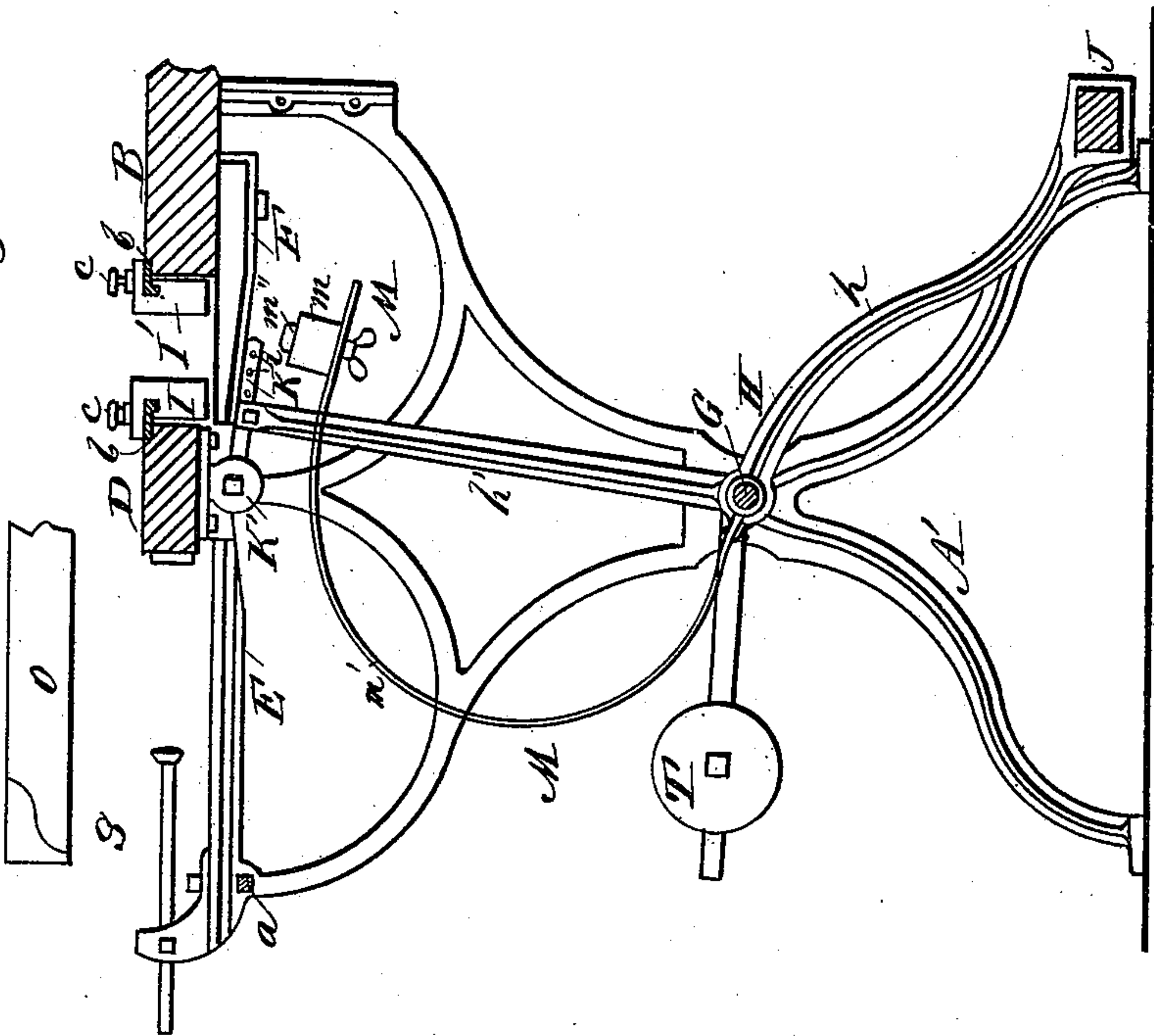
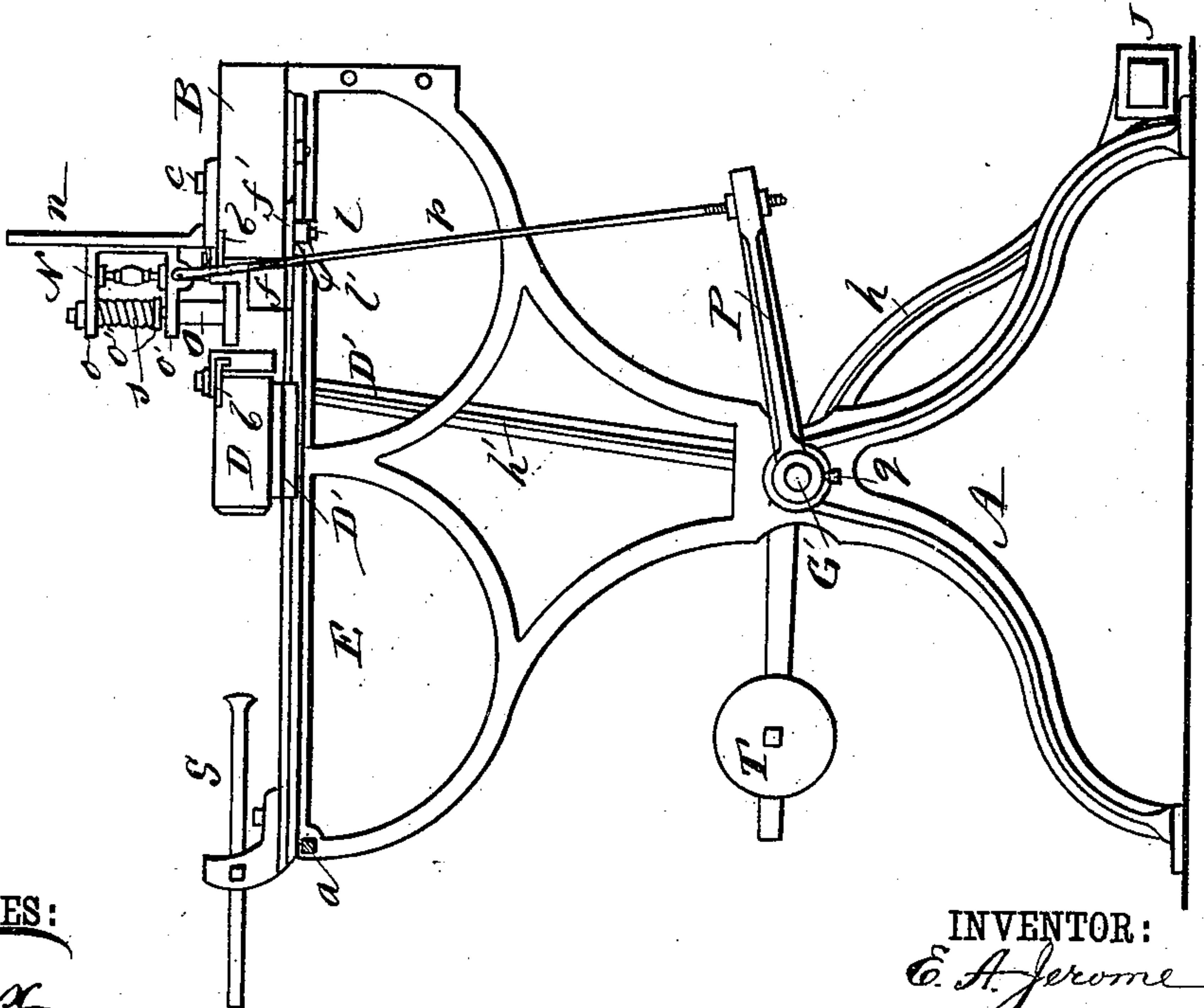


Fig. 4



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UNITED STATES PATENT OFFICE.

EDWARD AUGUSTUS JEROME, OF EAST PORTLAND, OREGON.

LAYING-OUT MACHINE.

SPECIFICATION forming part of Letters Patent No. 355,937, dated January 11, 1887.

Application filed March 11, 1886. Serial No. 194,837. (No model.)

To all whom it may concern:

Be it known that I, EDWARD AUGUSTUS JEROME, of East Portland, in the county of Multnomah and State of Oregon, have invented a new and Improved Laying-Out Machine, of which the following is a full, clear, and exact description.

My invention relates to the construction of a machine designed to lay out material to use in making sash, doors, blinds, &c.; and the invention consists of the construction and arrangement of parts, as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a portion of my improved laying-out machine. Fig. 2 is a front elevation of the same. Fig. 3 is a detail view illustrating the connection between the movable bed and the stationary frame-work of the apparatus. Fig. 4 is an end view of the machine. Fig. 5 is a cross-sectional view taken on line *xx* of Fig. 1, and Fig. 6 is a view illustrating certain details of construction.

In constructing such a machine as is illustrated in the drawings above referred to, I provide two supporting frames, *A A'*, upon which there is arranged a heavy longitudinal bar, *B*, the parts being braced by brackets *C*. A second longitudinal bar, *D*, is mounted on sliding carriages *D'*, which ride upon slideways *E E*, as shown best in Figs. 1 and 3. The frames *A A* are connected at the rear by a longitudinal brace-rod, *a*.

Upon the upper side of the strips or bars *B D* there are secured angle-irons *b*, upon which there are mounted sliding pointers or markers *I I'*, arranged to be adjusted longitudinally upon the said angle-irons, and locked in place by set-screws *c c*. The angle-iron carried by the strip or bar *B* is graduated so that the markers *I I'* may be adjusted as desired, without the necessity of laying off the spaces between said markers by means of a ruler, and after the markers *I'* have been adjusted as desired, the markers *I* may be moved to register with them. A number of supporting arms, *F F*, project to the rear from the under

side of the bar *B*, and serve as supports for the material to be marked. A longitudinal shaft, *G*, is mounted in bearings *g g*, formed in the end frames, *A A*, the end of the shaft projecting out beyond the frame *A*, as shown at *G'*.

Upon the shaft *G* there are mounted two double-armed levers, *H H'*, the lower arm, *h*, of each lever projecting downward and forward and serving as supports for a treadle-beam, *J*, while the upper arms, *h'*, are connected to arms *K*, that are pivotally secured in brackets *K'* that are fixed to the under side of the bar *D*. The arms *K* are formed with a number of apertures, *i i*, so that their point of connection with the lever-arms *h h'* may be varied.

From this construction it will be seen that, after the pointers *I I'* have been properly adjusted and the material to be marked has been placed upon the supporting-arms *F*, by simply depressing the treadle *J* the levers *H H'* will act to throw the bar *D*, and consequently the markers *I*, against the material, and at this time a face marker, such as is shown at *M*, will be thrown up against the face of the material. This face-marker consists of a can, *m*, mounted on the end of a spring, *m'*, rigidly connected to the shaft *G*, sponges *m'' m''* being arranged in openings formed in the top of the can and the can being filled with any marking-paint. It will be seen that when the shaft *G* is thrown over the spring *m'* will be vibrated, and the sponges carried by the can thrown against the under face of the material.

The purpose of the face-marker may be stated as follows: It is necessary for all sash, door, and blind material being laid out to have a witness-mark to indicate the face side and work edge. In other words, it indicates to the operator how to run the sash or door stiles through the machine, so that the stiles will come in pairs. The can should be adjusted so that it will leave the mark close to one edge, and after laying out one-half of the stiles required the can is adjusted so that it will mark the opposite edge of a stile, thus showing the edge to be molded and the corresponding sides when being driven together. By thus marking the stiles one handling of the material is dispensed with, as ordinarily the material has to be marked before being laid out. By using a

fluid-marker no indentation is made, and hence the time and expense of planing to remove indentations is avoided.

In order that the material to be marked may
5 be uniformly set upon the machine, I provide an adjustable stop, *f*, said stop being carried by a plate, *f'*, formed with slots *k k'*, the slot *k* being arranged to engage with a lug projecting from the under side of the bar *B*, while
10 through the slot *k'* there is passed a bolt, *l*, that is engaged by a winged nut, *l'*, the idea of this construction being to provide a stop which may be adjusted to vary its distance from the first graduation of the angle iron *b*.
15 In the class of machines described it is often desirable that the ends of the material should be marked off in ogee or bevel lines, and to accomplish this I arrange two vertical slides, *n n*, between which there is mounted a sliding
20 arm, *N*, having rearwardly-projecting arms *o o'*. This frame-work is connected by a rod, *p*, with the forwardly-extending arm *P*, that is loosely mounted on the extending portion *G'* of the shaft *G*, the standards *N* being adjust-
25 ably mounted on the bar *B*. An ogee or bevel marker *O*, carrying collar *o''*, is mounted in apertures formed in the arms *o o'*, being normally held in the position shown in Fig. 4 by a spiral spring, *s*, that is coiled about the shank
30 of the marker and abuts against the under face of the arm *o* and the upper face of the collar *o''*. The lever-arm *P* is arranged to be secured to its supporting-shaft by a set screw, *q*, and when so fixed will act to draw down
35 the rod *P*, and consequently the arm *N*, carrying the marker *O*, when the treadle *J* is depressed to advance the bar *D*, carrying the markers *I*, the parts being returned to their normal position by the action of weights *T*, ar-
40 ranged to counterbalance the treadle and throw the bar *D* back against buffers *S*, that are adjustably mounted at the rear of the frame.

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

1. The combination, in a laying-out machine, of the frame having the fixed bar *B*, provided with markers *I'*, the horizontally-sliding bar *D*, having markers *I*, brackets *K'*
50 on its under face, and arms *K'*, pivoted in said brackets and having a series of apertures, *i*, with the shaft *G*, the two-armed levers *H H'*, the upward-extending arms *h'* of which are connected to the apertured arms *K*, the lower
55 arms, *h*, being extended downward and forward and connected by the treadle-bar *J*, substantially as set forth.

2. The combination, with the frame, the stationary bar *B*, having markers *I'*, the horizontally-sliding bar *D*, having markers *I*, and the
60 horizontally-adjustable buffers *S S*, mounted in bearings on the frame behind the sliding bar, of the shaft *G* below the markers, the double-armed levers *H H'* for operating the
65 bar *D* in its forward movement, and means for moving the said bar rearward toward the buffers, substantially as set forth.

3. In a laying-out machine, the combination, with the main frame, the sliding and fixed marker-bars thereon, and means for op- 70
erating the sliding bar, of an ogee marker sliding at right angles to the sliding bar, bearings on the frame for said ogee marker, and a connecting device between the ogee marker and the operating mechanism of the sliding 75
marker-bar, substantially as set forth.

4. The combination, with the frame and the fixed and movable marker-bars *B D*, of the vertical guides *n n*, the slide *N*, working there- 80
in and having arms *o o'*, the vertically-movable ogee or bevel marker *O*, mounted in the arms *o o'*, and extending down between the bars *B D*, and means for simultaneously operating the said markers, substantially as set 85
forth.

5. The combination, with the fixed and movable marker-bars *B D* and the operating mechanism, of the vertical guides *n n*, the slide *N* between said guides, having horizontal arms 90
o o', the vertical yielding ogee or bevel marker *O*, having a collar, *o''*, and mounted in the arms *o o'*, and the spring *s* on the marker *O* between the under face of the arm *o* and the collar *o''*, and the rod *p*, connecting the slide *N* with the operating mechanism of the marker- 95
bar *D*, substantially as set forth.

6. The combination, with the fixed and movable bars *B D*, the edge-indenting markers *I' I* on the adjacent faces thereof, and the operating mechanism, of a non-indenting face- 100
marker below and operating between the bars *B D*, the said face-marker being connected with the operating mechanism of the bar *D*, substantially as set forth.

7. The combination, with the frame, the 105
fixed and movable bars *B D*, having edge-indenting markers *I' I*, the rock-shaft *G*, and operating-levers *H H'* below the bars, the spring *M'*, secured to the rock-shaft, and a liquid face-marker on the free end of the spring 110
adjacent to the under faces of the bars *B D*, whereby when the levers and rock-shaft are operated to move the bar *D* the liquid-marker will be thrown against the face of the material being laid off, substantially as set forth. 115

8. In a laying-off machine, the liquid face-marker comprising the spring-arm *m'*, the cam 120
n, secured to the upper side thereof at one end, and the sponges *m''*, projecting through the top of the can, substantially as set forth.

9. The combination, with the fixed and movable bars *B D*, of the stop *f*, formed on the horizontal plate *f'*, having parallel slots *K K'*, receiving, respectively, a lug and a bolt ex- 125
tending from the under side of the bar *B*, and the adjusting-nut *l'* on the bolt, the stop *f* extending between the two bars *B D*, substantially as set forth.

EDWARD AUGUSTUS JEROME.

Witnesses:

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A. W. LAMBERT.