

(No Model.)

H. GEHNRICH.

FABRIC HOLDING FRAME FOR EMBROIDERING MACHINES.

No. 478,853.

Patented July 12, 1892.

Fig: 1.

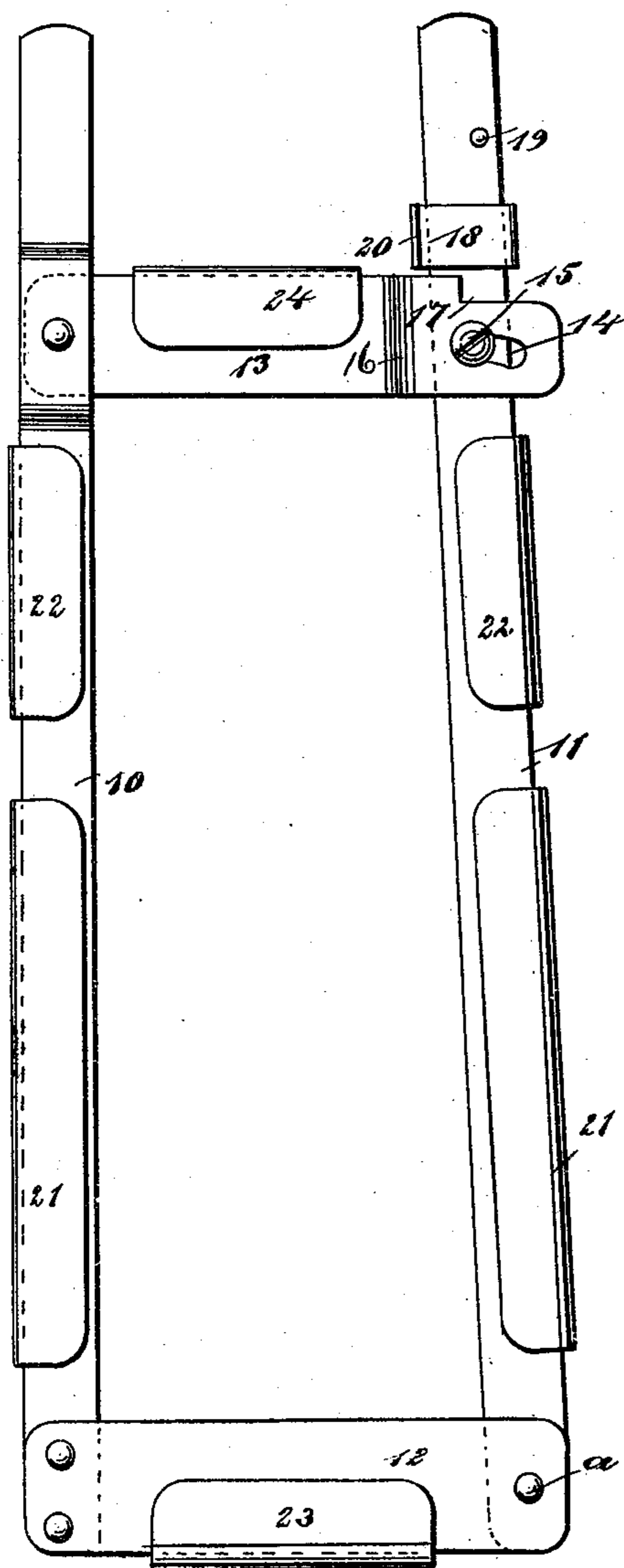


Fig: 2.

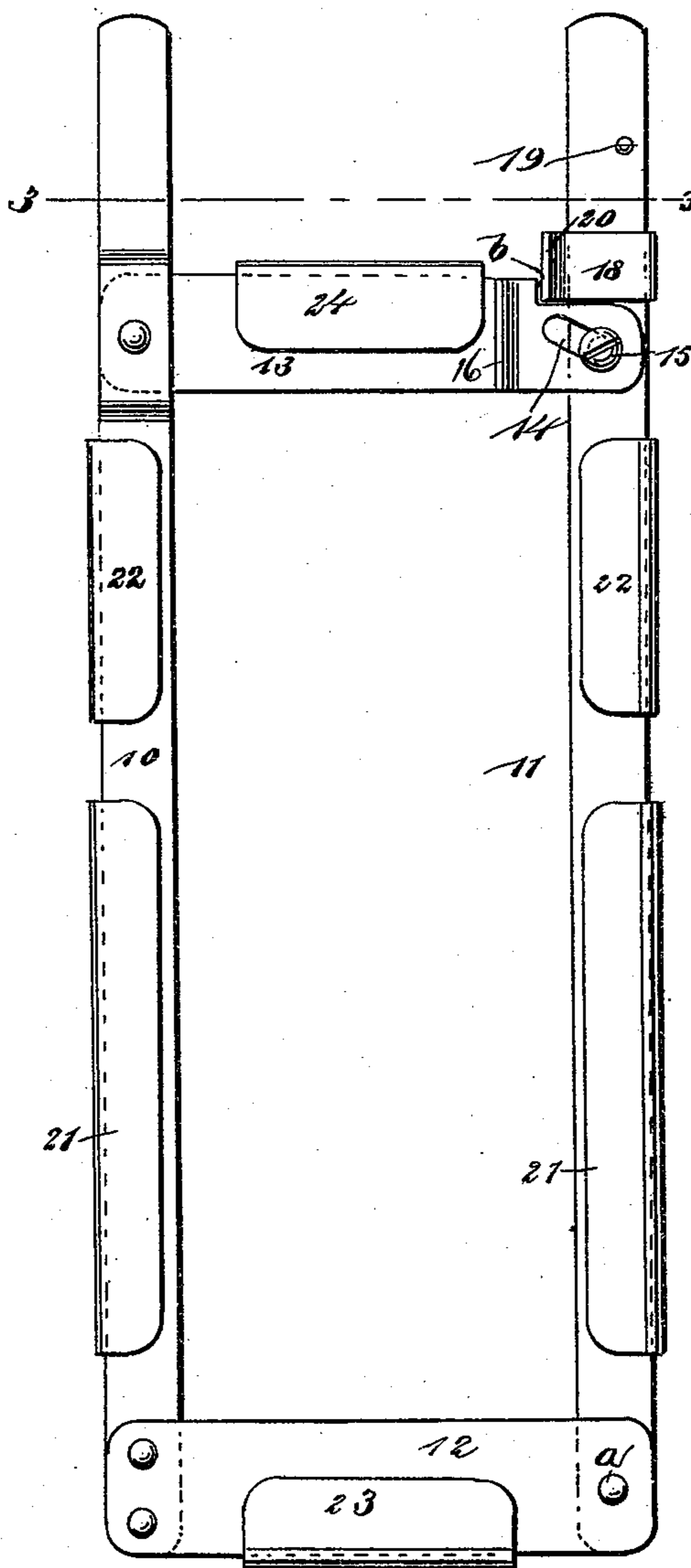
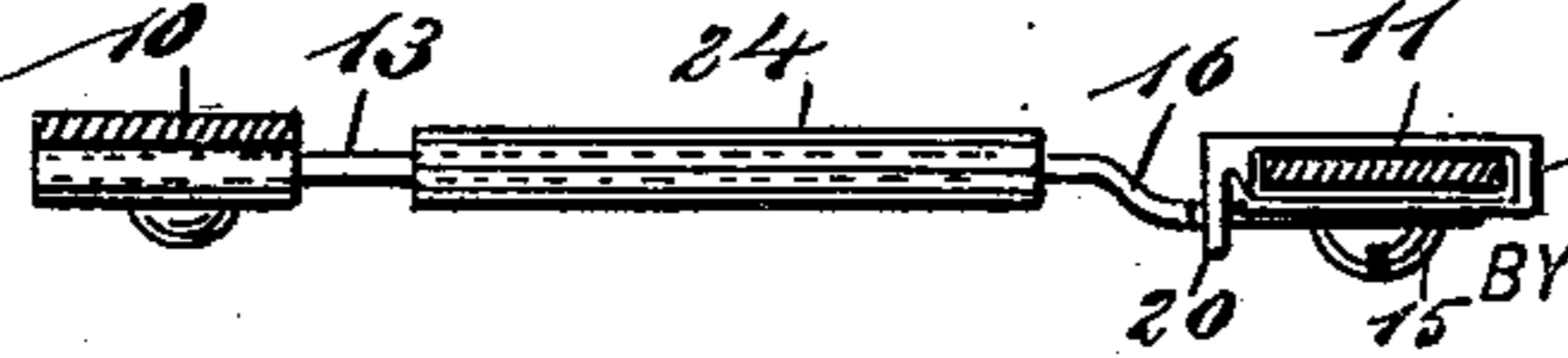


Fig: 3.

WITNESSES:

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HERMANN GEHRICH, OF NEW YORK, N. Y., ASSIGNOR TO EDMUND T. MASON
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FABRIC-HOLDING FRAME FOR EMBROIDERING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 478,853, dated July 12, 1892.

Application filed February 20, 1892. Serial No. 422,307. (No model.)

To all whom it may concern:

Be it known that I, HERMANN GEHRICH, of New York city, in the county and State of New York, have invented a new and useful
5 Improvement in Fabric-Holders for Embroidering-Machines, of which the following is a full, clear, and exact description.

My invention relates to a fabric-holding frame for embroidering-machines especially
10 adapted for use in connection with the machines known as the "Heilmann" or "Swiss" embroidering-machines; and its object is to provide a frame of simple, durable, and economic construction which will occupy but
15 very little space and to which the fabric can be readily and securely attached and stretched without injury to it.

A further object of the invention is to provide a lock capable of convenient and expeditious manipulation, whereby when the fabric is stretched the frame will be compelled to hold the fabric under the desired tension.

The invention consists in the novel construction and combination of these several parts,
25 as will be hereinafter fully set forth, and pointed out in the claims.

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

Figure 1 is a side elevation of the frame in its collapsed position. Fig. 2 is a side elevation of the frame in its extended position;
35 and Fig. 3 is a horizontal section taken, practically, on the line 3 3 of Fig. 2.

Two side bars 10 and 11 are connected by two cross-bars 12 and 13. The side piece 10 is rigidly secured to both the top and bottom cross-bar, the bottom cross-bar being located at the extreme end of both the side pieces; but the upper cross-bar is located between the center and upper ends of the side pieces.

The side piece 11 at its lower end is pivotally connected with the lower cross-bar 12, as illustrated at *a* in the drawings, and the connection between the upper cross-bar and the side 11 is a sliding one, the cross-bar being provided with an essentially diagonal slot 14,
45 through which slot a screw 15 passes, the said screw being firmly held in the side piece, and

the distance between the head of the screw and the front of the side 11 is such that the latter may be readily slid in direction of or away from the opposing side 10. The forward
55 movement of the side 11 is limited by striking up that portion of the cross-bar 13 crossing the said side and forming a shoulder 16, as shown in Fig. 3. That end of the upper cross-bar 13 having sliding connection with
60 the side 11 has a recess 17 formed in its upper edge, whereby a vertical shoulder *b* is made, as illustrated in Fig. 1 and 2. This shoulder is adapted for engagement by a sleeve 18, held to slide upon the side piece 11
65 above the upper cross-bar, its upward movement being limited by a stop 19 of any approved character. This sleeve is provided at its inner end with a forwardly-extending lip 20, as is best shown in Fig. 3.

In connection with each side piece 10 and 11 two spring-clamps 21 and 22 are preferably employed, one clamp being longer than the other, and a single short clamp is employed in connection with each cross-bar, being designated, respectively, as 23 and 24.

In the operation of the frame one edge of the fabric to be embroidered is passed over the upper edge of the upper cross-bar and held in engagement therewith by its clamp
80 24, the sleeve 18 at this time being out of engagement with the upper cross-bar and the frame in its collapsed position—that is, with the side bar 11 carried in direction of the side bar 10. The fabric is next carried over the
85 outer edge of the lower cross-bar and clamped thereto by its clamp 23. The fabric is then stretched across the side bars in like manner and secured in position thereon by their respective clamps 21 and 22. The upper portion
90 of the fabric is now stretched to the required tension by forcing the side bar 11 upward until the sleeve 18 as it drops down by its own weight will reach such a position that its lip 20 will engage with the shoulder *b* of
95 the upper cross-bar. This lock, it will be observed, is automatic and effective, as the fabric will be held under tension by it as long as may be desired.

The prime object of this invention is to reduce the cost of manufacturing such frames,
100 to render them more convenient in use, and

to provide a means whereby the locking will be automatically accomplished, thus saving time.

The frame may be secured to the machine in any well-known manner to make it efficient in operating upon the fabric.

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

10 1. In a fabric-holding frame for embroidering-machines, the combination, with an upper and a lower cross-bar and a side bar rigidly secured to both the upper and lower cross-bars, of a second side bar having a pivotal
15 connection with the lower cross-bar and a sliding connection with the upper cross-bar, a gravity locking device having movement upon the movable side bar and adapted for locking engagement with the upper cross-bar, and
20 clamps carried by the side and by the cross bars, as and for the purpose specified.

2. In a fabric-holding frame for embroidering-machines, the combination, with a lower cross-bar, an upper cross-bar provided with a slot at one end and a recess in its slotted end 25 forming a shoulder, and a side bar rigidly secured to both the upper and the lower cross-bar, of a second side bar pivotally attached to the lower cross-bar, a pin carried by the pivoted side bar and capable of movement in the 30 slot of the upper cross-bar, and a gravity locking device having sliding movement upon the pivoted side bar above the upper cross-bar, the said gravity locking device being adapted for locking engagement with the shoulder of 35 the upper cross-bar when the pivoted side bar is in its outermost position, substantially as described.

HERMANN GEINRICH.

Witnesses:

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JACOB DEMAR.