J. J. HOEY.

CLOTH CLAMP FOR TEXTILE MACHINERY.

APPLICATION FILED MAR. 19, 1910.

999,223.

Patented Aug. 1, 1911.

2 SHEETS—SHEET 1.

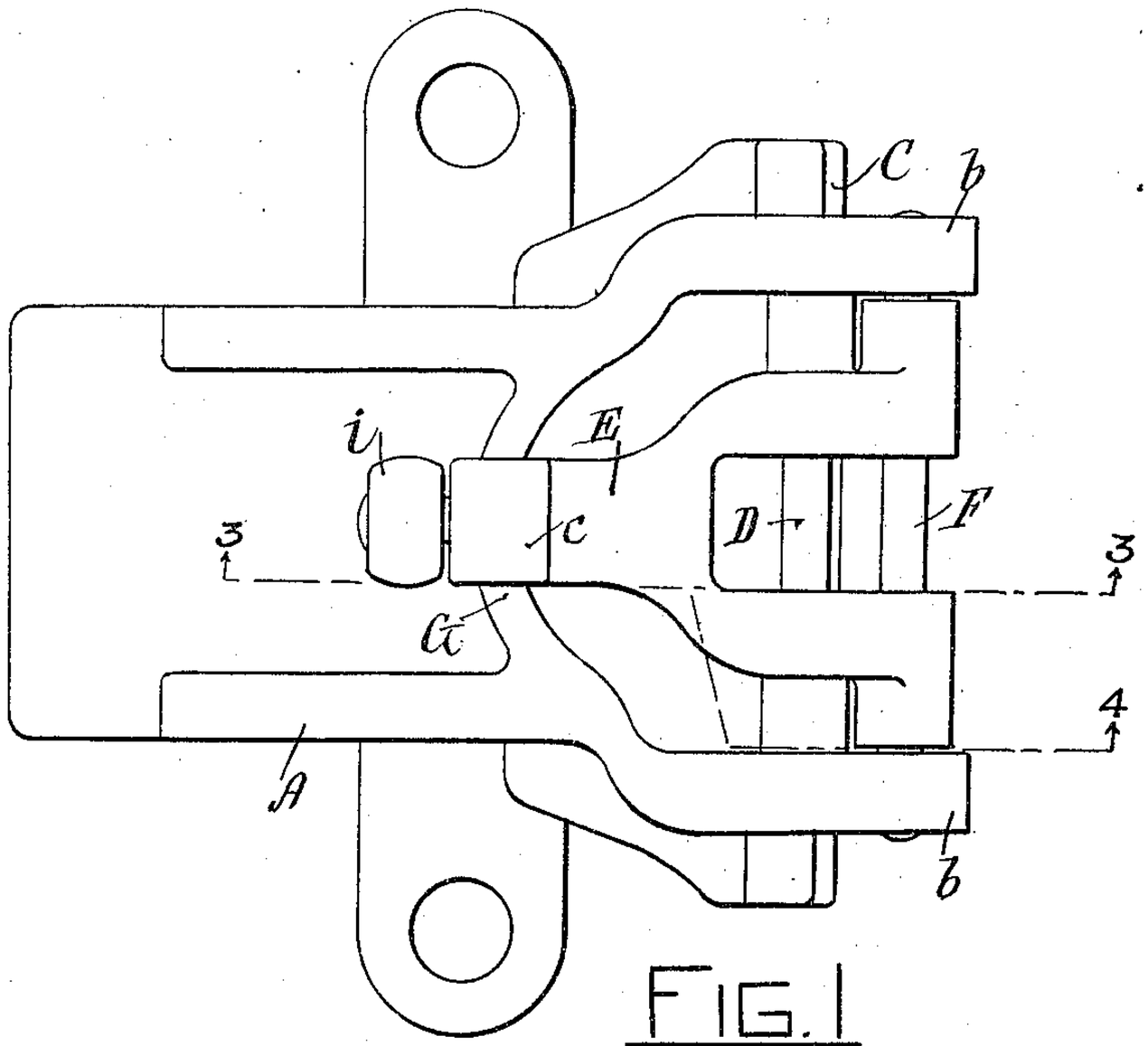

FIG. 1

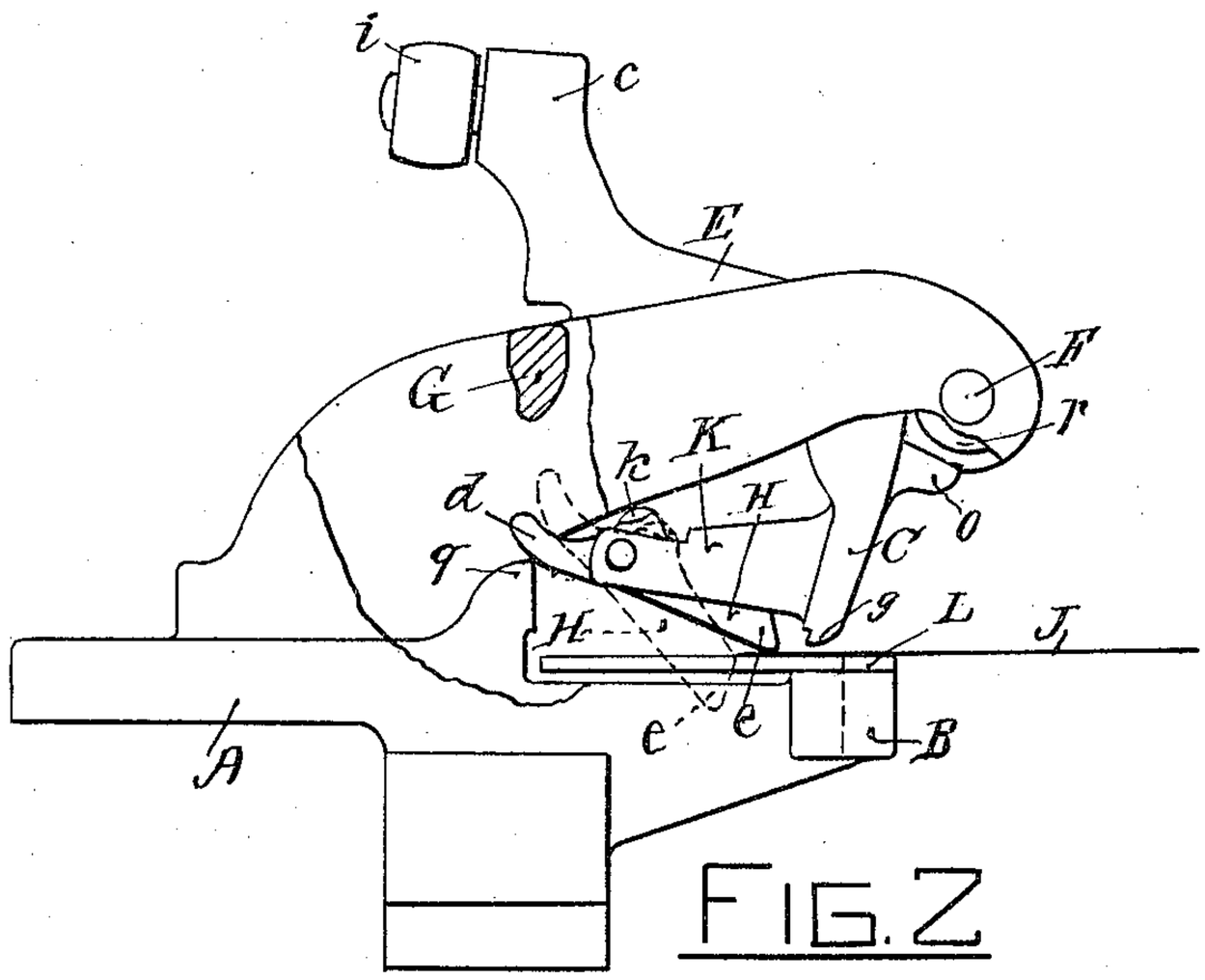

FIG. 2

WITNESSES

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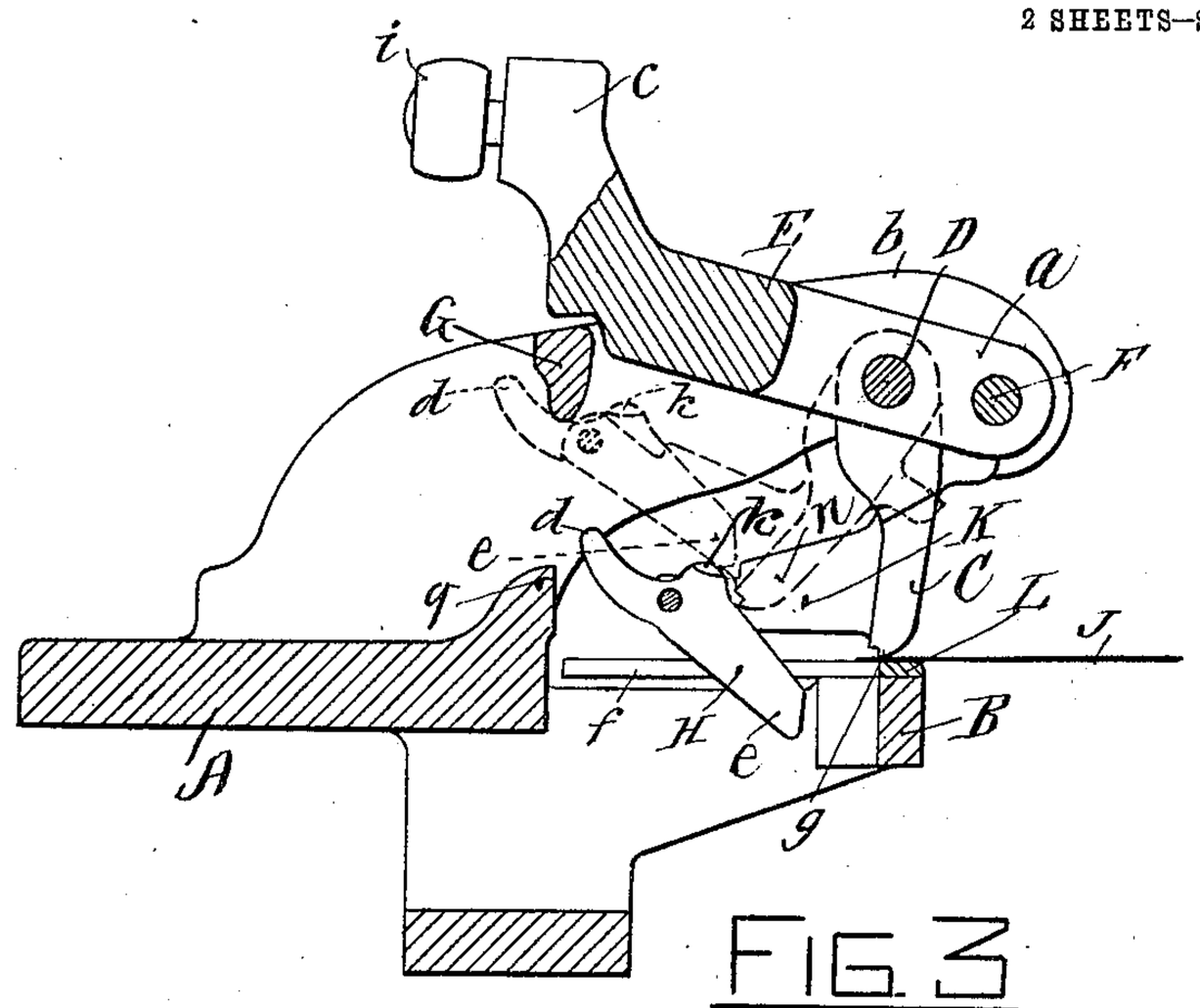

FIG. 3

FIG. 5

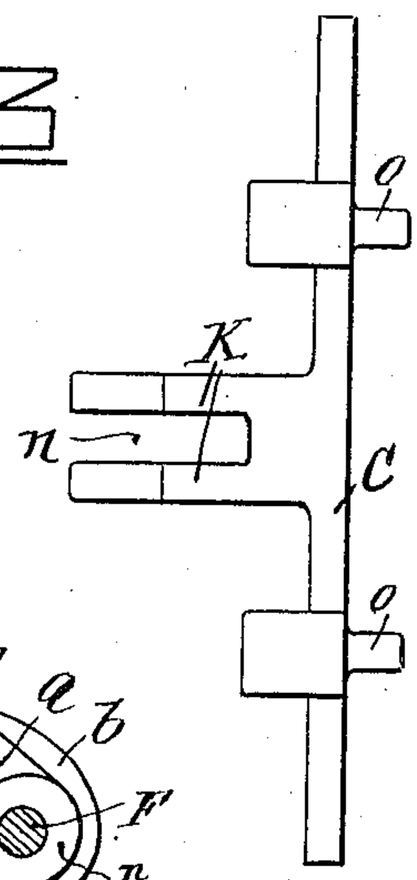

FIG. 6

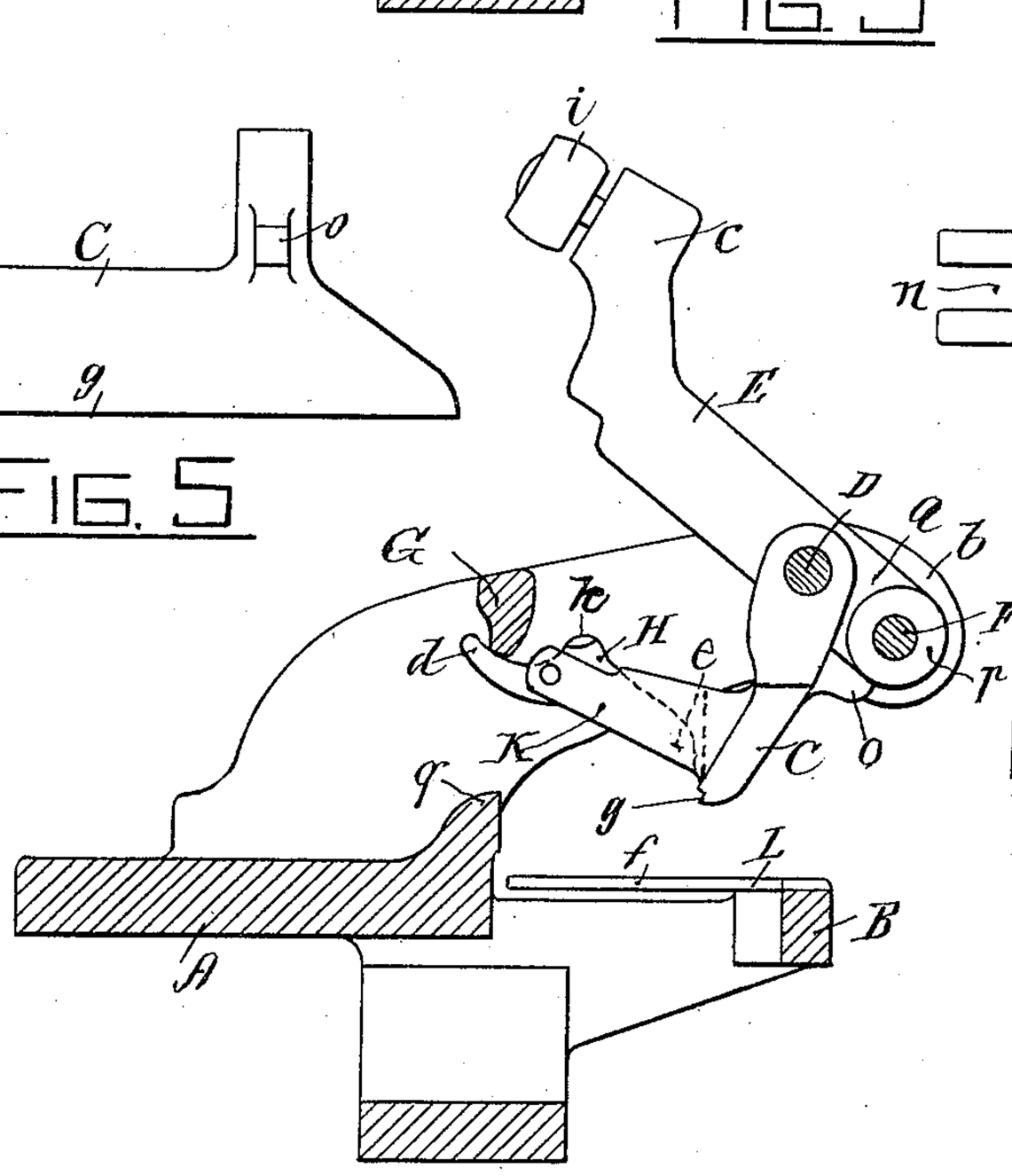

FIG 4

WITNESSES

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CLOTH-CLAMP FOR TEXTILE MACHINERY.

999,223. Specification of Letters Patent. Patented Aug. 1, 1911.

Application filed March 19, 1910. Serial No. 550,537.

To all whom it may concern:

Be it known that I, JOHN J. HOEY, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Cloth-Clamps for Textile Machinery, of which the following is a specification.

The object of my improvement is to combine in a single cloth-clamp the advantages of both the rigid arm and the releasing type of clamps, whereby the said clamp will be rendered equally adapted for all kinds of fabrics; also to increase the gripping qualities of the clamp and to dispense with all springs as heretofore employed, which by their constant pressure operate to wear a hollow place in the lower jaw, thus soon preventing the jaw from properly holding the cloth.

My improvement also provides a sensitive and quick acting controller, which also assists by its weight in forcing the upper jaw onto the cloth when in the act of gripping it.

In the accompanying drawings: Figure 1 represents a top view of my improved clamp for the chains of tentering machines. Fig. 2 represents a side view of the same with a portion of the frame broken away. Fig. 3 represents a section taken in the line 3, 3, of Fig. 1. Fig. 4 represents a section taken in the line 3, 4, of Fig. 1. Fig. 5 represents a front view of the upper jaw removed from the clamp. Fig. 6 represents a top view of the upper jaw as shown in Fig. 5.

In the drawings, A, represents the frame of a clamp which forms a link of the chain by means of which the cloth is carried forward in a cloth tentering machine.

B, represents the lower jaw which is integral with the frame A, and C represents the upper jaw which is pivoted by means of the pivot pin D, to the arms *a*, *a*, of the forked releasing lever E, which latter is pivoted to the arms *b*, *b*, of the frame A, by means of the pivot pin F. The cross bar G, of the frame provides a stop for the downward movement of the end *c* of the said lever E, as shown in Fig. 3, and also provides an engaging medium for the rear arm *d* of the controller H, to cause the elevation of the end *e* of the said controller out of the way of the cloth as shown in Fig. 4.

The lower jaw B is provided with a plate L, in which is formed a slot *f*, adapted to receive the end *e* of the controller, as shown in Fig. 3. The movable upper jaw C is provided with the cloth-holding edge *g*, and with the rearwardly extending divided arm K, to the outer end of which in the slot opening *n*, is pivoted the controller H, the forwardly projecting end *e*, of which is adapted to rest upon the cloth J over the slot *f* in the plate *l*, as shown in Fig. 2, until the said cloth has been withdrawn, and upon the said withdrawal of the cloth J from under the end *e* of the controller, the unsupported weight of the controller will cause the over-balancing of the upper jaw upon its pivot pin D, and the consequent gripping of the cloth, as shown in Fig. 3. Now as the chain of which the frame A forms a part moves forward to the farther end of the machine the antifriction roller *i* of the releasing lever E engages with the releasing cam of the machine whereby the cloth will be released from the clamp by a slight turning movement of the jaw C and the releasing lever E about the pivot pin F, and when the clamp has been returned to the receiving end of the machine by the continued movement of the chain, then the upper jaw is to be still further raised by the upward movement of the releasing lever E to the position shown in Fig. 4 whereby the rear arm *d* of the controller H, will be brought into engagement with the cross bar G, so as to raise the end *e* of the said controller out of the way of the incoming selvage of the cloth, and upon the succeeding downward movement of the releasing lever E the said upper jaw will by reason of the gravitative engagement of the lugs *o*, *o*, with the hubs *p*, *p*, of the releasing lever, follow the downward movement of the said releasing lever until the end *e* of the controller strikes the surface of the cloth, and then by reason of the resulting engagement of the rear arm *d* of the controller with the lug *q* of the frame will cause the elevation of the cloth-holding edge *g* of the jaw, as shown in Fig. 2 the said upper jaw being in this case caused to turn independently upon its pivot pin D. And from this position, the said upper jaw is prepared for engagement with the surface of the cloth whenever the edge of the web has been drawn from under the end *e* of the controller, as shown in Fig. 3. And upon the engagement of the cloth holding edge *g* of the upper jaw with the cloth, the said edge will be carried forward until the lugs *o*, *o*, bring up against the hubs *p*, *p*, which as

shown in Fig. 3, form a stop for such forward movement.

It is evident that the controller may be actuated to the position shown in Fig. 4 without the employment of the releasing lever E,—as indicated by the dotted lines in Fig. 3,—by simply pressing the jaw backward after it has been first raised from contact with the surface of the web, as shown in Fig. 2.

The controller H is provided with a lateral projection *k*, which by engagement with the upper surface of the arm K of the upper jaw, serves to limit the downward movement of the forward end *e* of the said controller.

I claim as my invention:—

1. In a cloth clamp for textile machinery, the combination of a frame provided with the lower jaw and an overhanging upper portion, with a releasing lever pivoted to the said releasing upper portion of the frame, a swinging upper jaw pivoted to the said releasing lever, and provided with a stop which engages with the said releasing lever for limiting its forward movement relatively to the pivot axis of the releasing lever when the said jaw is in engagement with the tensioned cloth.

2. In a cloth clamp for textile machinery, the combination of a releasing lever, and the swinging upper jaw provided with a backwardly extending arm, with a controller pivoted to said arm and extending from its pivot axis forwardly toward the back of the said jaw, and provided with a lateral stop projection which engages with the said arm for limiting the downward movement of said controller by its engagement with the said arm upon the withdrawal of the cloth from under the controller, also having a backward extension, a fixed stop for causing the proper elevation of the controller upon the upward movement of the releasing lever for the unobstructed insertion of the selvage edge of the web between the jaws.

3. In a cloth clamp for textile machinery, the combination of a frame provided with the lower jaw and an overhanging portion, with the releasing lever pivoted to the said overhanging portion of the frame and the swinging upper jaw pivoted to the said releasing lever, whereby the said upper jaw will have a swinging movement about its own pivot axis, and also a movement about the pivot axis of the releasing lever.

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Witnesses:
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