No. 828,069. PATENTED AUG. 7, 1906.

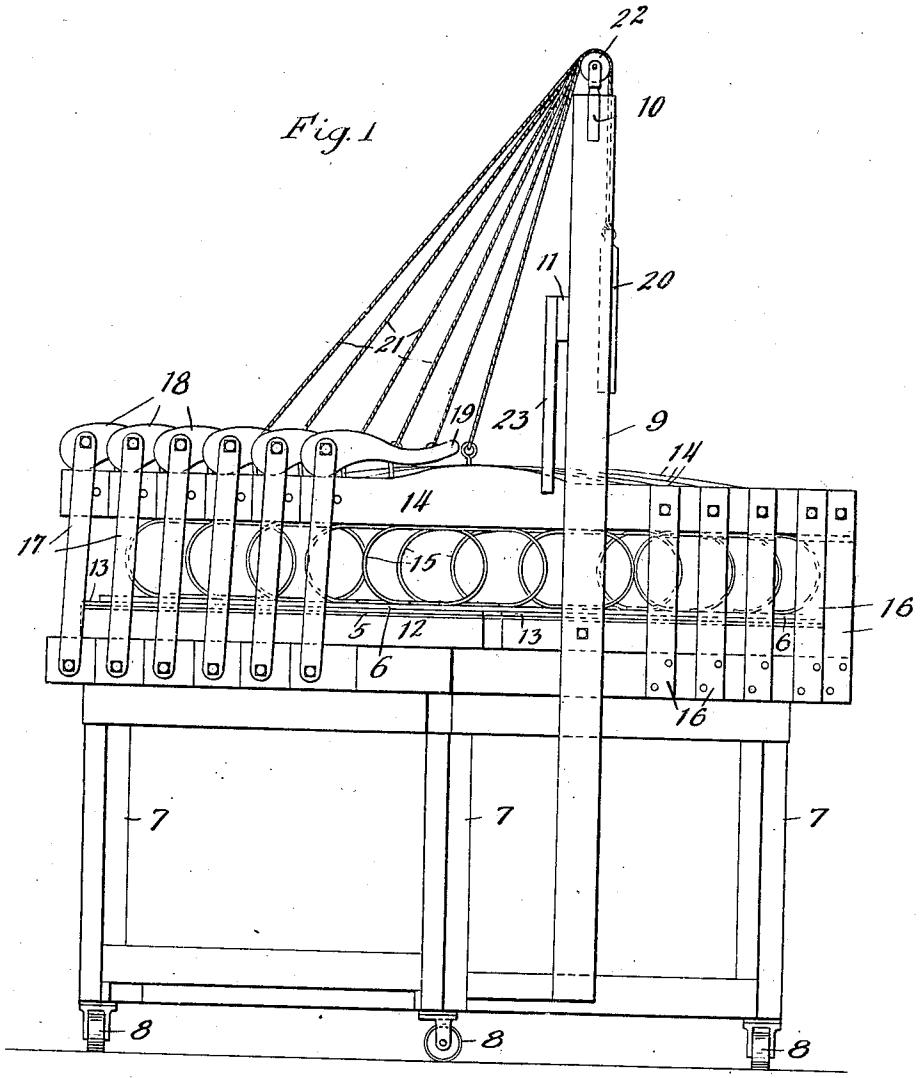
G. F. STEGER.

GLUE PRESS.

APPLICATION FILED OCT. 30, 1905.

3 SHEETS—SHEET 1.

Fig. 1



Witnesses:

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Inventor:

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By Munday, Evarts & Adcock,

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THE NORRIS PETERS CO., WASHINGTON, D. C.

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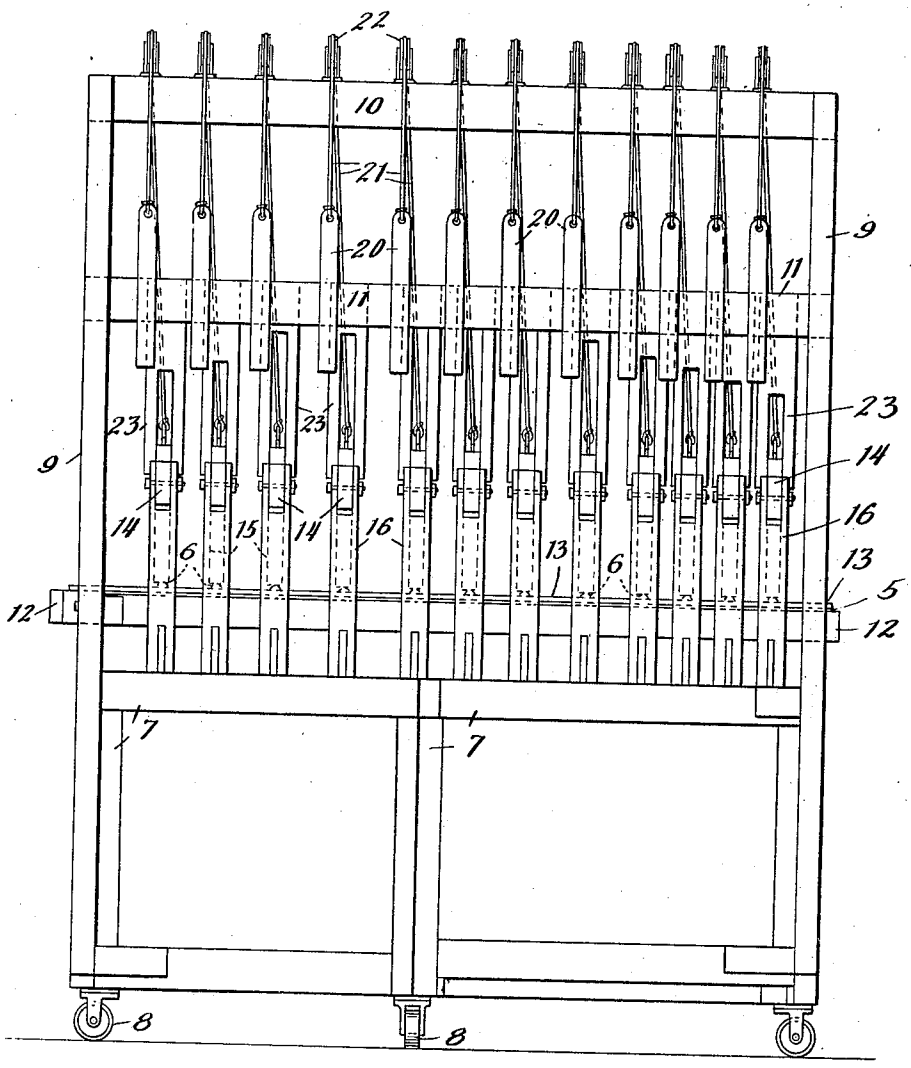
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3 SHEETS—SHEET 2.

Fig. 2



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3 SHEETS—SHEET 3.

Fig. 3

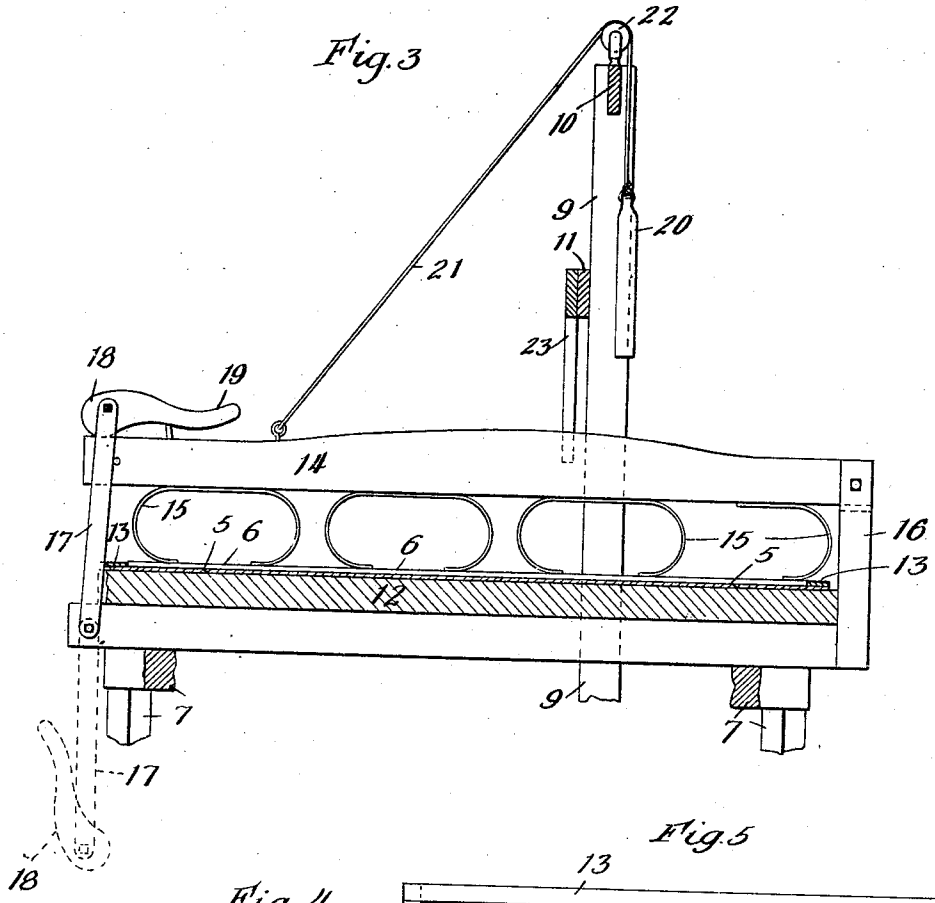


Fig. 4

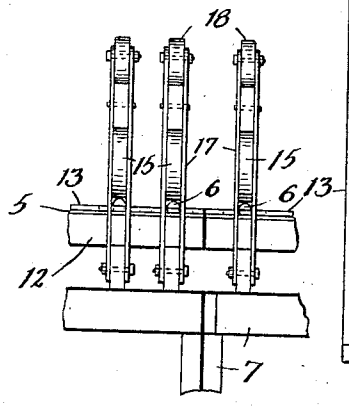
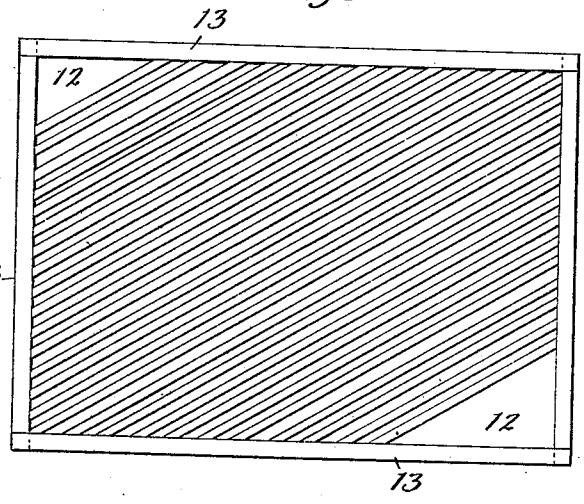


Fig. 5



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UNITED STATES PATENT OFFICE.

GEORGE F. STEGER, OF STEGER, ILLINOIS.

GLUE-PRESS.

No. 828,069. Specification of Letters Patent. Patented Aug. 7, 1906.

Application filed October 30, 1905. Serial No. 284,950.

To all whom it may concern:

Be it known that I, GEORGE F. STEGER, a citizen of the United States, residing in Steger, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Glue-Presses, of which the following in a specification.

This invention relates to machines for gluing the ribs to the back of piano sounding-boards and may be used for other purposes where similar work is to be done.

It is an improvement upon previous constructions of gluing-presses; and its main object has been to devise a machine which will be more expeditious and more convenient than previous machines and at the same time produce work of the best character.

The invention consists in the novel construction of parts and devices and in the novel combinations of parts and devices hereinafter described.

In the drawings I show at Figure 1 a side elevation, and at Fig. 2 a rear elevation, of the invention. Fig. 3 is a vertical section, and Fig. 4 is a partial front elevation. Fig. 5 is a plan view of the table with the strip-positioning pattern thereon.

In said drawings, 5 represents the sounding-board, and 6 the stiffening-ribs being glued to the back of the board. The gluing-press is provided with a suitable supporting-frame 7, preferably mounted upon rollers 8, and is provided upon opposite sides with tall standards 9, connected by cross-bars 10 and 11. The bed of the press upon which the sounding-board is placed is shown at 12.

For the purpose of properly positioning the ribs 6 I employ a slotted pattern or form 13, which is laid flat upon the sounding-board. The pattern is provided with slots or long openings extending through it vertically and which in length and width correspond with the width and length of the ribs, the number of slots also corresponding to the number of ribs, so that it will be seen that by positioning this pattern upon the sounding-board a perfect guide will be afforded by it in positioning the ribs and that the pattern will enable the making of the sounding-boards perfectly uniform, because it acts always to position the ribs in the same position.

The ribs having been properly supplied with a coating of glue and positioned in the slots of the pattern, I then apply pressure to them, preferably by means of the hinged clamping-bars 14, having springs 15 secured to their under surfaces and adapted to bear upon the tops of the ribs. Several of these springs are employed with each bar 14, and there is a separate bar 14 for each rib, and the bars are entirely independent of each other, and each may be lowered for action as soon as the rib upon which it is to press has been positioned upon the board. The bars are hinged at one end to standards 16, projecting upward from the rear of the bed 12, and at their other ends I provide holding devices which may consist of pairs of links 17, hinged to the bed 12 at their lower ends, and an eccentric 18, hinged to the upper ends of the links and adapted to bear upon the tops of the bars 14, the eccentrics having handles 19, whereby they may be operated. These devices are adapted to hold the ribs down firmly upon the sounding-board so long as may be necessary for the setting of the glue, and when the operation is completed they may be lifted so as to leave the entire area of the board and pattern exposed, the eccentrics being reversed from the position shown at Fig. 3 and swung over so as to release the bar 14, and the links being then turned on their lower pivot to the position shown in dotted lines in said figure. When thus released, the bars are easily swung upward out of action, as they are each provided with a counterbalance-weight 20, connected with them by cords 21, passing over sheaves 22 on the cross-bar 10, and they are retained in their raised positions by the weights, giving full opportunity for removing the sounding-board and placing a new one in position.

It will be noted from the description given that the fact that each of the clamping-bars 14 is independent of the other clamping-bars enables the operator to lower them singly, so that there need be no loss of time between the positioning of any rib and the application of pressure to it; also, that if at any time it is desirable to obtain access to any particular rib or portion of the work the clamping bar or bars bearing upon that rib or portion may be raised so as to give the freedom of access without releasing the pressure upon the other ribs or portion of the board; also, that when raised a large open space above the board is formed, enabling very convenient access to any part of the board desired; also, that the pattern is adapted to prevent both sidewise and endwise movement of the ribs after they have been once positioned in the openings of the pattern. This latter re-

sult is important because in lowering the bars 14 into action there is a tendency by the springs to push the rib longitudinally. The cross-bar 11 is preferably provided with a series of spacing or guiding devices 23, adapted to guide the clamping-bars. These devices are slotted upward from their lower ends for various distances, the long clamping-bars at the center of the press being permitted by the guides a greater range of movement than are permitted the short levers at the sides of the machine.

I claim—

1. In a glue-press for gluing ribs to sounding-boards, the combination with a bed for the sounding-board, and independent individual clamping devices armed with contact-springs for exerting pressure upon the ribs, of a pattern covering the board and provided with slots in which the ribs may be positioned and held against movement during the application of the pressure.

2. The combination in a glue-press for gluing ribs to sounding-boards of the bed, the removable slotted pattern for positioning and holding the ribs in their proper positions and a series of clamping-bars independent of each other, and provided with contact-springs, one bar for each rib, and means for holding the clamping-bars in action.

3. The combination in a glue-press for gluing ribs to sounding-boards, of a bed for the sounding-board, a slotted pattern for positioning and holding the ribs to be secured, and a series of hinged clamping-bars, one for each rib, said clamping-bars being independent of each other, and armed with contact-springs and provided with holding devices at their free ends.

4. The combination in a glue-press, of a bed, a pattern adapted to be laid upon the board and provided with slots fashioned to admit the entire ribs and to hold them against longitudinal and lateral movement, and a series of spring-faced clamping-bars for creating pressure on the ribs, said bars being wholly independent of each other so that each can be separately put into action or released.

5. The combination in a glue-press, of a support for the sounding-board, a pattern for positioning and holding the ribs during the operation, such pattern being removable and adapted to be laid flat upon the sounding-board, and having slots therethrough coextensive with the ribs and a series of clamping devices adapted to be raised and lowered independently of each other.

GEORGE F. STEGER.

Witnesses:
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