(No Model.)

R. BROCKMAN.

BED FOR POLISHING PLATE GLASS.

No. 497,115. Patented May 9, 1893.

Fig. 1.

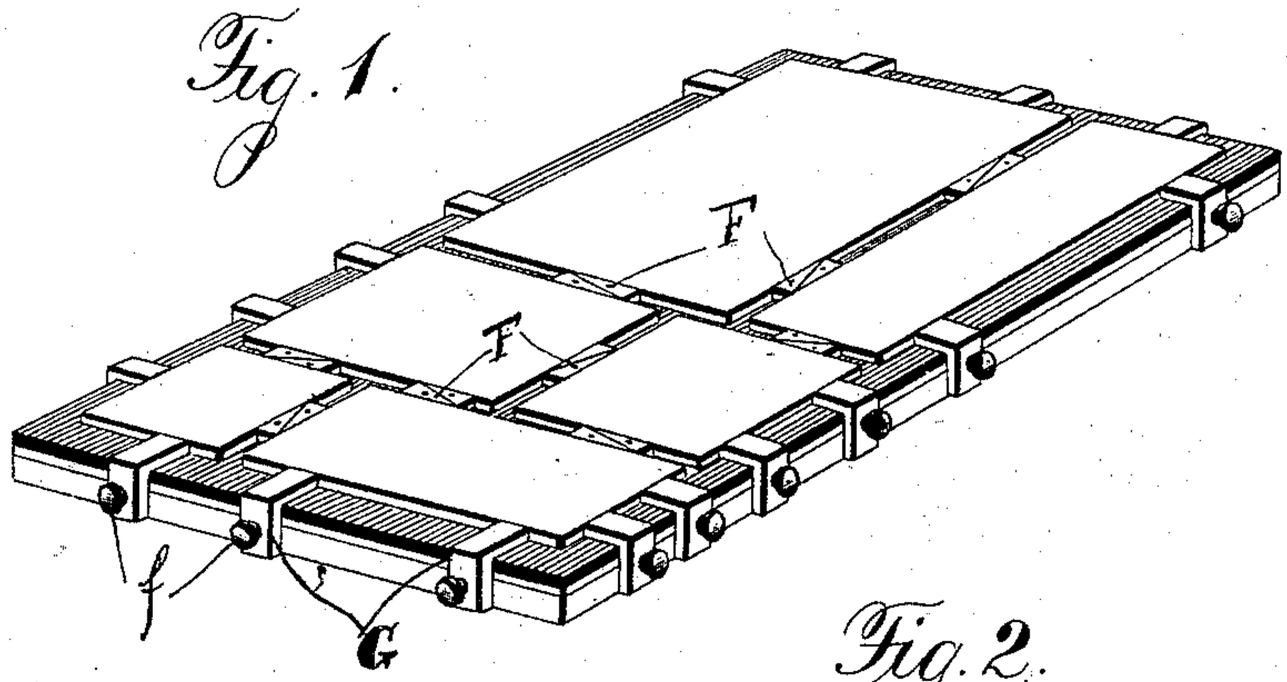


Fig. 2.

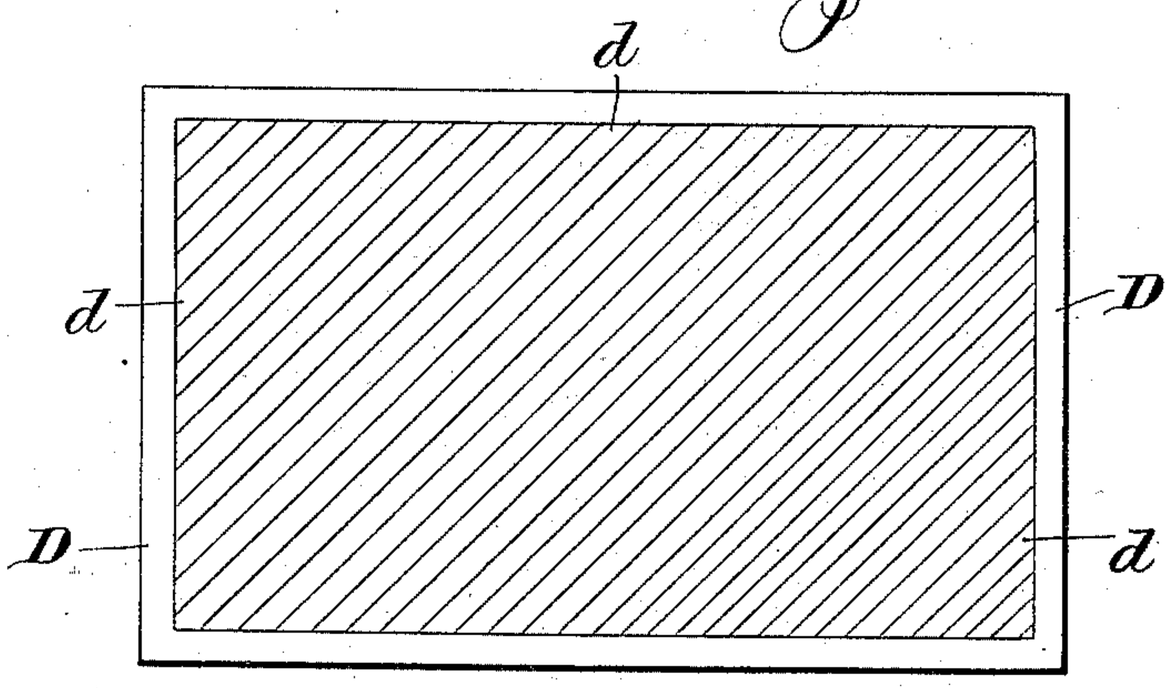


Fig. 3.

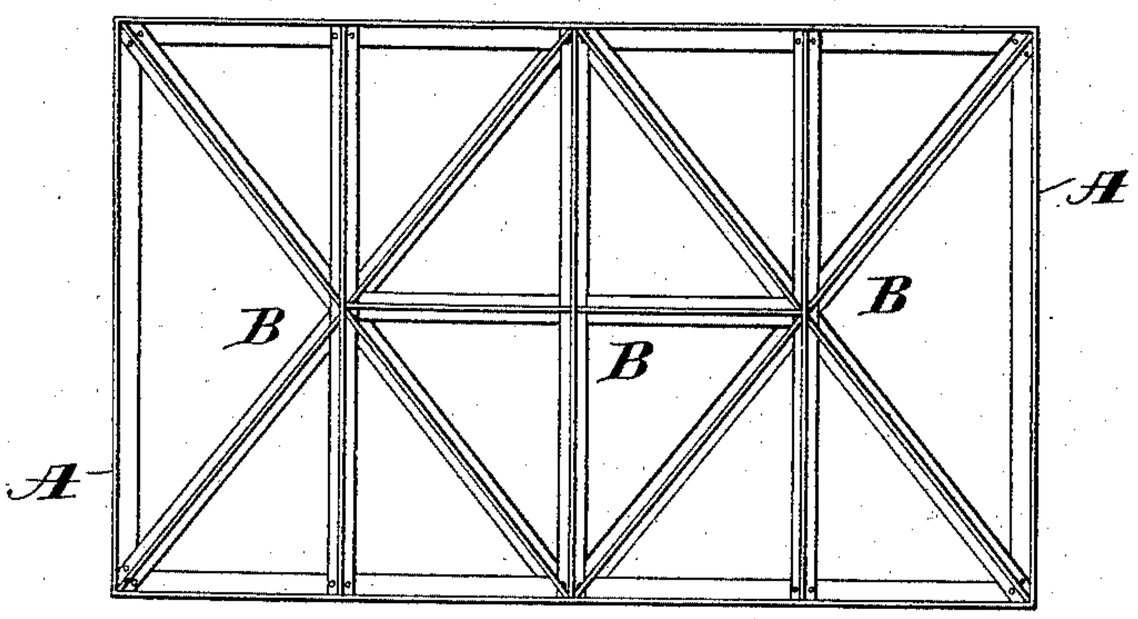
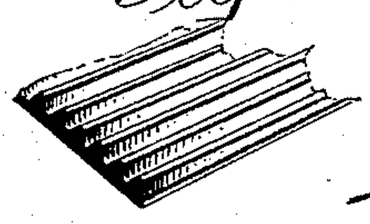


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

ROBERT BROCKMAN, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO JOHN H. STOTSENBURG, OF NEW ALBANY, INDIANA.

BED FOR POLISHING PLATE-GLASS.

SPECIFICATION forming part of Letters Patent No. 497,115, dated May 9, 1893.

Application filed December 16, 1892. Serial No. 455,390. (No model.)

To all whom it may concern.

Be it known that I, ROBERT BROCKMAN, of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Beds for Polishing Plate-Glass; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved bedding with plates of glass thereon; Fig. 2, a plan view with the glass and the bedding fabric removed; Fig. 3, a like view of the metal frame alone; Fig. 4, a transverse section of the entire device with glass upon it as shown in Fig. 1, and Fig. 5, a detail perspective view of a portion of the rubber sheet used as a bedding.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to provide an improved bedding for holding plate glass while the same is being polished, and to this end said invention consists in the device and the parts thereof constructed and arranged substantially as hereinafter specified.

In polishing plate glass the plates of glass resting upon a bed are placed upon an iron bench, and there subjected to the action of the polishing machinery. Such bed has consisted of wet plaster of paris and a wooden frame for the same and also a wooden frame having a soft textile fabric covering, the latter construction being such an one as is set forth in my patent No. 178,403, of June 6, 1876. In practice the wooden frame has been found seriously objectionable, especially for large plates, since it has to be of such size as to be heavy even when dry, while when sodden with the water used in the polishing operation, there is a material addition to its weight. A further objection to the wooden frame is its liability to warp and lose its shape which, of course, is great, owing to its swelling from its saturation with water, and which may occasion the breakage of the glass. These defects, I have had in view in devising my present invention, and in the same they will be found to have been avoided and a bedding produced possessing the features of lightness, strength and security from warping.

The foundation of my bedding consists of an open, or skeleton, rectangular frame of bars of angle iron A and bars of ⊥-iron B, and made oblong in shape, the angle iron bars being used to form the four sides, and the ⊥-iron bars being extended between said sides. Three bars B extend from one side bar to the other, parallel with each other, and the shorter bars A so as to divide the space between the latter equally, and one bar B is extended midway the longer side bars A, and parallel therewith, from the two outer of the three bars. Other bars B extend diagonally from each of the corners of the frame to the intersection of the middle of said three bars with the two longer side bars A. The whole space within the frame is thus divided into a number of triangular sections and the resulting structure is both very strong and quite light. The bars can be united in any desired way, but preferably by riveting, and their lower faces must lie in the same plane to insure a smooth bottom for the bedding. The location of the transverse bars B is made to correspond with the position of the rollers on the polishing bench which are provided to facilitate the placing on and removal of the bedding and glass from said bench.

All of the triangular spaces formed by the described arrangement of iron bars, are filled in with blocks or pieces of wood C which rest on the horizontal flanges of said bars and have their upper faces flush with the upper edges of the webs or vertical members of the bars. Upon this structure of wood and iron, I place a covering that comprises a rectangular frame of wood D conforming to the rectangular shape and size of the iron frame and a filling of strips of wood *d* extending in diagonal lines from side to side of the frame, and united to each other by tongues and grooves. This covering is held to the structure beneath by dowel pins, and is made removable therefrom for its replacement when necessary. Upon such covering of wood is laid a piece of fabric E of soft, water proof material, as rubber, to receive the plates of glass; but I do not limit myself to rubber, nor to a water proof fabric, since, canton flannel, canvas, or the like material may be used. Rubber, however is preferable because serving by

its softness to properly cushion the glass and by its water proof character to protect the wood beneath from water. A rubber sheet ribbed or corrugated on one side, as shown, is best adapted for the purpose.

For holding the plates of glass on the bedding thus constructed, I employ wedges and clamps, as in my patent before referred to, the wedges F being similar to those shown in said patent while the clamps G are ⌐-shaped or angle irons secured by their vertical members to the side bars A of the metal frame and having their horizontal members overlapping the bedding in position to be engaged by the edges of the plates of glass. Said clamps G are located at suitable intervals apart—in practice from eighteen to twenty-four inches—and are removably held in place by set screws *f* passing through openings in their vertical members into threaded openings in the frame bars A.

To prevent injury to the glass the clamps G are covered with rubber or other soft, cushioning, material.

Having thus described my invention, what I claim is—

1. In a bed for holding plate glass while being polished, the combination with a metal frame, of a filling of wood, and a soft water proof covering therefor, as a sheet of rubber, to protect the wood from water and to cushion the glass substantially as and for the purpose shown.

2. In a bed for holding plate glass while being polished, the combination of a metal frame, a filling of wood therein, a covering of wood on these two, and a cushion for the glass upon the latter, substantially as and for the purpose set forth.

3. In a bed for holding plate glass while being polished, the combination of a frame of metal comprising side bars, and bars extending between the same, a filling of wood between said bars, a removable covering of wood upon the frame and filling, and a cushion upon said covering for the glass, substantially as and for the purpose specified.

4. In a bed for holding plate glass while being polished, the combination of a frame of metal comprising side bars of angle iron and inner bars of ⊥-iron extending between said side bars, a filling of wood, a covering for the latter, the clamps of angle iron secured by their vertical members to the side bars, and having their horizontal members in position for engagement by the plates of glass, and suitable means to hold said plates against such clamps, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of November, 1892.

ROBERT BROCKMAN.

Witnesses:
D. C. HANSON,
G. W. LEEAK.