

(No Model.)

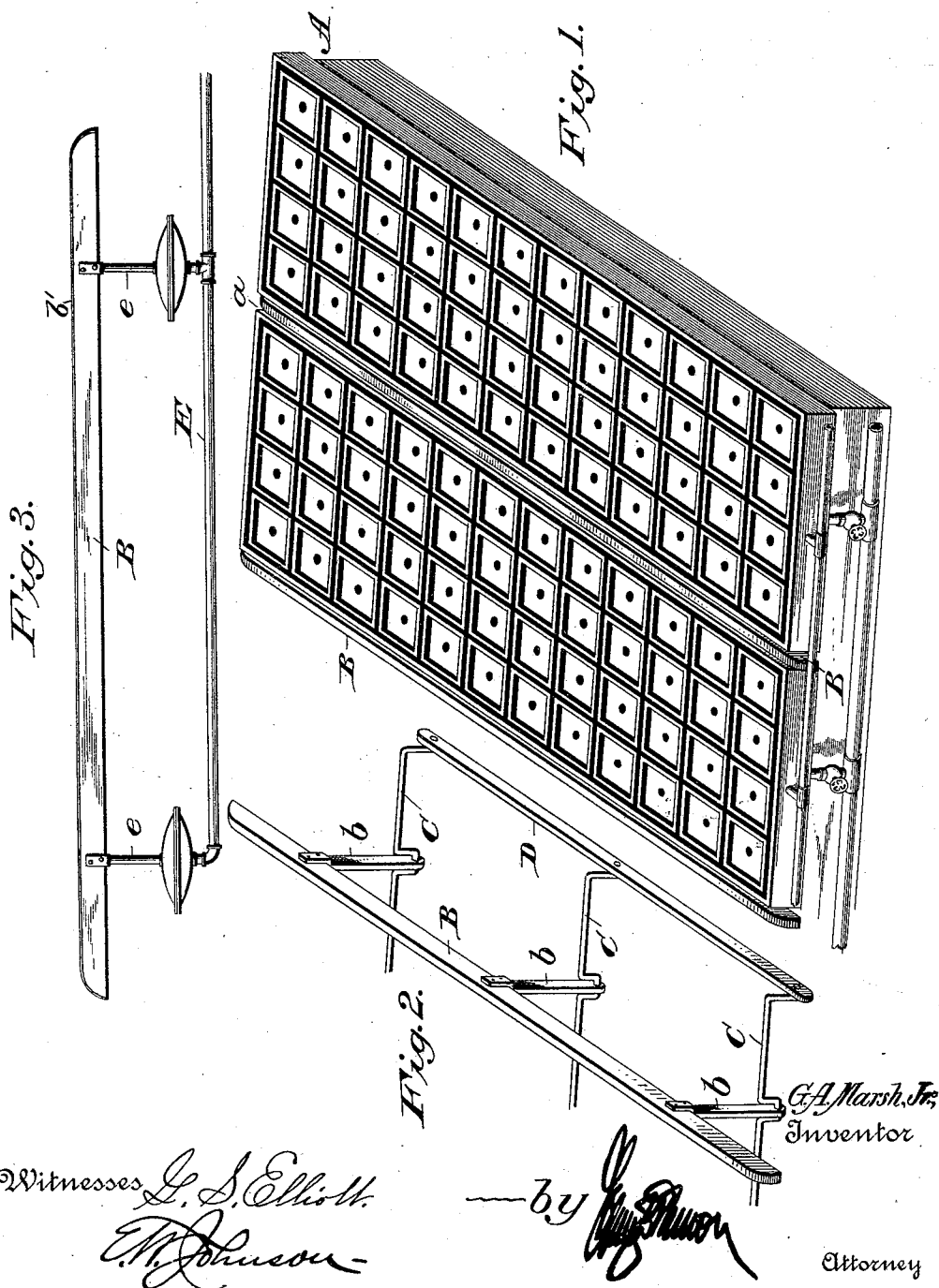
2 Sheets—Sheet 1.

G. A. MARSH, Jr.

APPARATUS FOR PLACING PLATE GLASS ON GRINDING AND
POLISHING TABLES.

No. 477,304.

Patented June 21, 1892.



Witnesses *L. S. Elliott.*
E. M. Johnson.

—by *G. A. Marsh, Jr.*
G. A. Marsh, Jr.

Inventor

Attorney

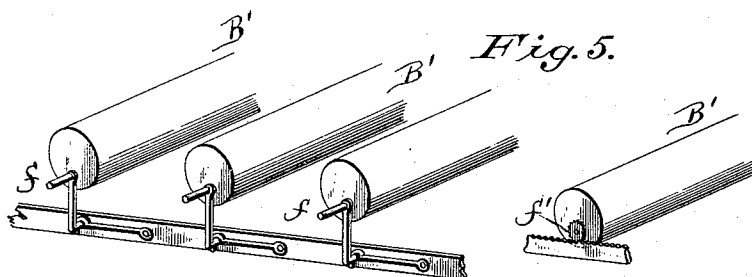
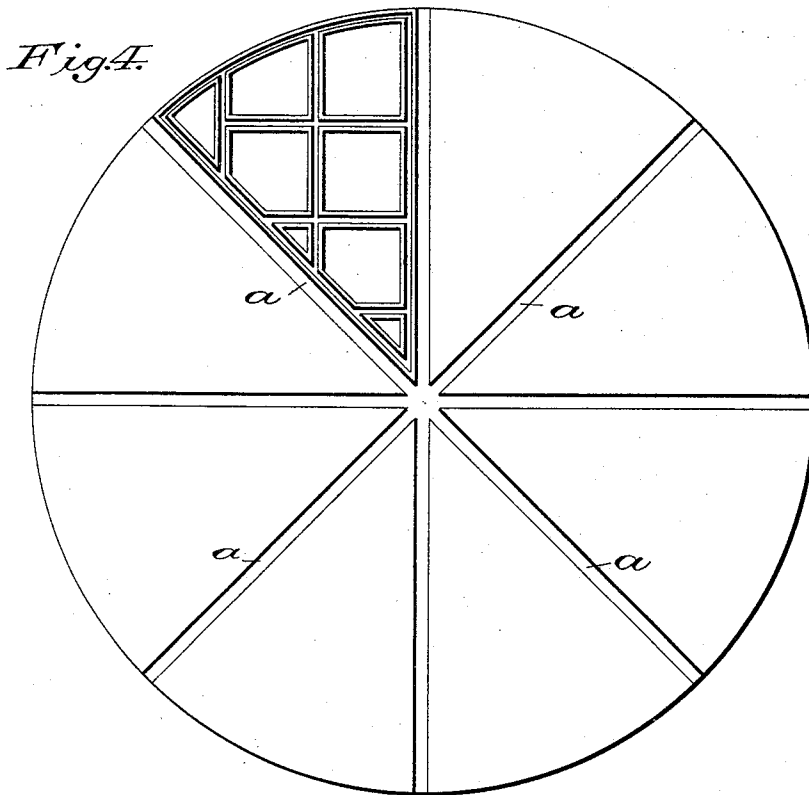
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UNITED STATES PATENT OFFICE.

GEORGE A. MARSH, JR., OF SANDUSKY, OHIO.

APPARATUS FOR PLACING PLATE-GLASS ON GRINDING AND POLISHING TABLES.

SPECIFICATION forming part of Letters Patent No. 477,304, dated June 21, 1892.

Application filed September 7, 1891. Serial No. 405,009. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. MARSH, JR., a citizen of the United States of America, residing at Sandusky, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Apparatus for Placing Plate-Glass on Grinding and Polishing Tables; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in apparatus for placing plate-glass on or removing it from grinding or polishing tables, the same being primarily adapted to be used in connection with the invention described and claimed in my application filed February 12, 1891, bearing Serial No. 381,190; and my present invention consists in providing longitudinal spaces between the sections of the grinding and polishing tables, in which are placed strips adapted to be raised or lowered when it is desired to place the plate or plates of glass on the table or remove it therefrom; and the invention further consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a section of a grinding or polishing table as used by me in the manufacture of plate-glass, showing my present invention applied thereto. Fig. 2 is a detail perspective view of one of the strips removed from the grinding or polishing table. Fig. 3 is a side view showing a different manner of operating the strips. Fig. 4 is a plan view of a revolving table having grooves for the application of my improvement. Fig. 5 is a modification.

A designates a glass grinding or polishing table, which is preferably of the construction shown in my prior patent, though the present invention is not limited to any special form or style of table, but can be applied to grinding or polishing tables as ordinarily used. The table A is provided with longitudinal or

transverse grooves, depressions, or spaces *a*, which may or may not separate the sections of the table from each other. These grooves or spaces are of sufficient depth to receive strips or bars *B*, which are preferably made of wood and may have their upper edges covered with a suitable fabric *b'*, as shown in Fig. 3. The strips are adapted to sink below the upper edges of the table when lowered and be elevated considerably above said table when raised, and the several strips used on each table can be connected to each other, so as to be elevated or depressed in unison, or may be operated independent of each other.

In Fig. 2 of the drawings I have shown the strips *B* provided with depending arms or links *b*, the lower ends of which are attached to crank-shafts *C*, said crank-shafts being connected to each other by a bar *D*, so that they will move in unison. The crank-shafts may extend entirely across the table, if desired, the lower portion of the table being shaped to receive them.

In Fig. 4 of the drawings I have shown a diagram view of a round table having grooves or spaces which radiate from the center thereof, and in which grooves or spaces the elevating-bars are adapted to be placed, said bars being operated as shown in either Fig. 2 or Fig. 3 of the drawings; or, instead of the flat bars shown in Figs. 2 and 3, I may employ circular bars or rods *B'*, having eccentric bearings *f*, which are connected to suitable mechanism for turning said bars to cause them to be elevated above or lowered below the surface of the table. These bars *B'* may be operated by crank-arms, or their bearings may be pinions, as *f'*, which are engaged by suitable rack-bars.

Instead of operating the strips *B* by crank-arms or equivalent mechanism arranged to suit the construction of the table, I may elevate or depress the strips by liquid or gaseous pressure, and in such a case the liquid or gas can be forced into the pipe *E*, so as to operate upon diaphragms or pistons and raise or lower the rods *e*, which are connected thereto and to the strips *B*.

In practicing my invention the packing, preferably made of paper-pulp, is laid upon the surface of the table, and when the sections of the table are covered the strips *B* are raised,

so that their upper edges will be above the level of the packing. The glass is then slid into position upon the strips and the strips lowered, letting the glass down upon the packing in position to be secured in place by producing a vacuum beneath the glass, as described in my application referred to. When the glass has been ground or polished, the vacuum can be relieved and the plate or plates of glass raised by the strips and slid from the grinding or polishing table without interfering with the packing, which packing can be used again, as it will not be destroyed or in any way injured in the operation of placing the glass on and taking it off the table.

Having thus described my invention, I do not wish to limit myself to the special construction herein described, but reserve the right to modify my invention and employ any such means as I may see fit to raise and lower the strips in unison or independent of each other.

Having thus described my invention, I claim—

1. In a glass grinding or polishing table, a plurality of bars or strips connected to each other to move in unison and means for elevating said bars or strips above the surface

of the table upon which the glass rests, for the purpose set forth.

2. In a glass-holding table having grooves or spaces in its upper surface, bars or strips adapted to lie within said grooves or spaces and means for raising or lowering said bars, substantially as and for the purpose set forth.

3. In a glass grinding or polishing table having a series of grooves or spaces *a*, bars or strips adapted to lie within said grooves or spaces and means for raising said strips simultaneously, substantially as and for the purpose set forth.

4. In combination with a glass grinding or polishing table made up of a series of sections located adjacent to each other, so as to provide spaces between said sections, bars *B*, located within said spaces and connected to means for raising and lowering the same, the upper edges of said bars having a fabric covering, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE A. MARSH, JR.

Witnesses:

E. L. SADLER,

M. V. VIAUX.