

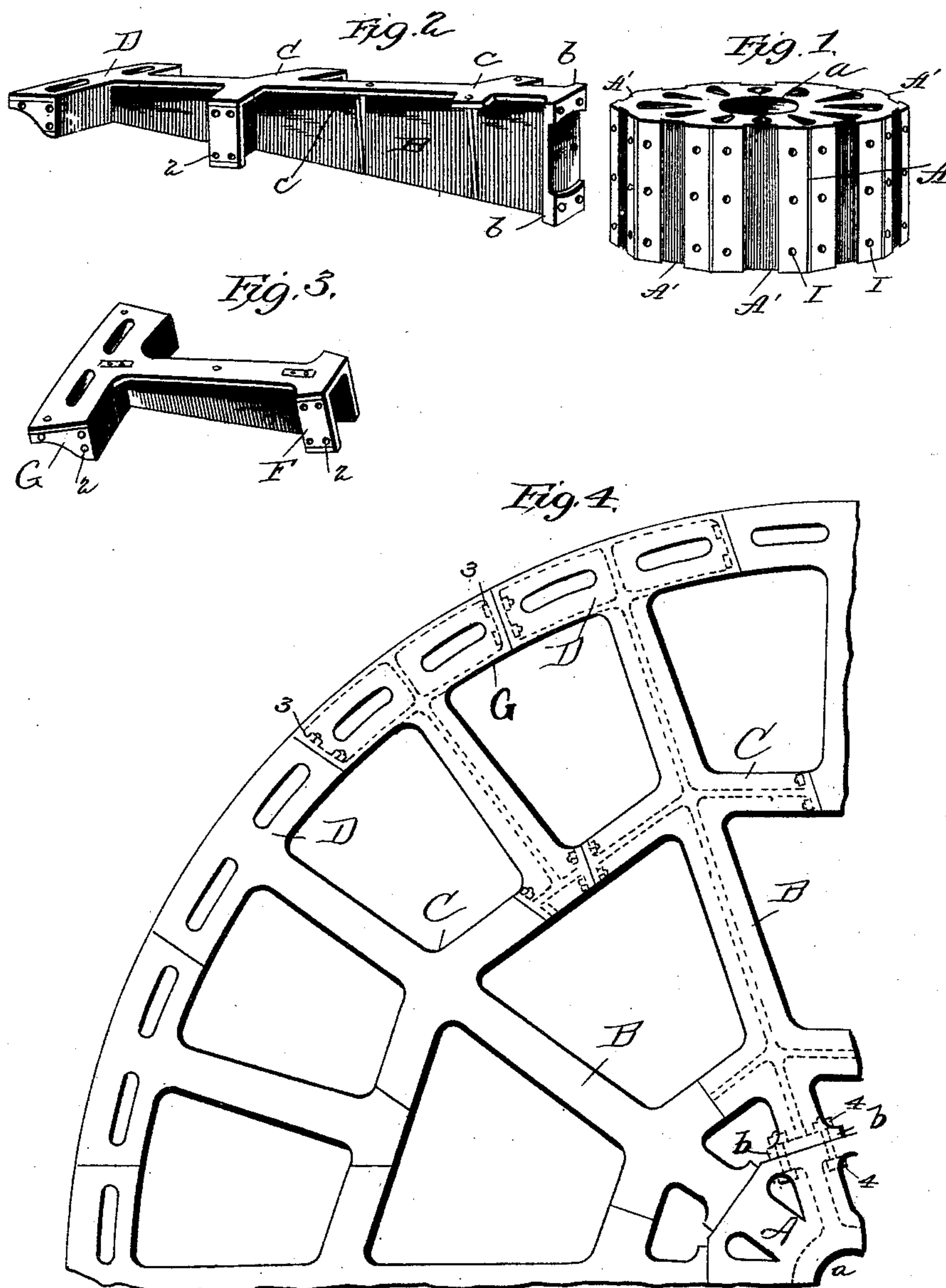
(No Model.)

A. J. & J. M. SWEENEY.

TABLE FOR THE MANUFACTURE OF PLATE GLASS.

No. 415,228.

Patented Nov. 19, 1889.



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# UNITED STATES PATENT OFFICE.

ANDREW J. SWEENEY AND JOHN M. SWEENEY, OF WHEELING, WEST VIRGINIA.

## TABLE FOR THE MANUFACTURE OF PLATE-GLASS.

SPECIFICATION forming part of Letters Patent No. 415,228, dated November 19, 1889.

Application filed July 20, 1889. Serial No. 318,159. (No model.)

*To all whom it may concern:*

Be it known that we, ANDREW J. SWEENEY and JOHN M. SWEENEY, of Wheeling, in the county of Ohio and State of West Virginia, have invented a new and useful Improvement in Tables for the Manufacture of Plate-Glass; and we do hereby declare that the following is a full, clear, and exact description of the same.

Our invention is an improvement in the rotary tables of the class used in grinding and polishing glass for the manufacture of plate-glass. Heretofore the tables used to support the glass in the manufacture of plate-glass have been made of arms cast separately from the hub or spider at the center. The spider was cast and fitted to the vertical shaft by which it was carried, and was formed with short radial arms, to which the main arms were attached by overlapping and bolts passing through the overlapping parts. In the process of grinding and polishing plate-glass a load is put upon the rotary table, and the table depends for its stiffness and strength on the resistance of these laterally-arranged bolts to the shearing strain brought upon them by the load on the main arms. This has been found to be very objectionable, as the bolts subjected to such shearing strain wore rapidly, and the parts became loose, and the table lost its rigidity and accuracy.

Our invention has for its object the improvement of the rotary table in this particular and to provide such a construction that the bolts will be subjected to tensile rather than to shearing strain.

To this end our invention consists, first, of a grinding and polishing table formed of a central hub having faces on its periphery at right angles to radial lines of the hub, in combination with main arms having corresponding faces and flanges adapted to be bolted to the hub.

It consists, second, in the combination above described, of intermediate or short filling-arms having lateral arms and flanges adapted to be bolted to the main arms.

It consists, third, of the grinding or polishing table formed of a central hub and main arms connected with a hub by radially-ar-

ranged bolts, whereby the bolts are subjected in the use of the table to tensile strain.

Our invention is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of the hub or central casting of the table. Fig. 2 is a perspective view of one of the main arms. Fig. 3 is a like view of one of the short or intermediate arms. Fig. 4 is a plan view of one-quarter section of the table, including the whole of the hub.

In the drawings the central casting or hub (shown at A) is provided on its periphery with ten faces, (marked A'.) These faces are accurately planed and preferably at right angles to the upper face of the hub, which forms the central face of the upper part of the table. The hub when thus formed is an accurate decagon. The number of sides of course is not material, but will depend upon the number of arms used in the construction of the table. In the vertical lines on each face are two rows of holes tapped into the casting, as shown at I. The central hole in the casting is shown at *a*. One of the main arms is shown in perspective in Fig. 2, and is marked B. The end which is fitted to one of the faces of the hub has flanges *b b*, one on each side of the face, which, like the face of the hub to which it is applied, is accurately planed, so that when the parts are put together the upper surface will be a plane surface at right angles to the axial line of the supporting-shaft. Through the flanges are formed holes fitted accurately to register with the holes I I when the arm is in its proper place. The upper edge of the main arm and its lateral arms are formed with flanges *c c*. These are formed to receive the bolts which secure the surface-plates which are used to cover the top of the table when it is finished. The main arm B has also lateral arms C D, which are shown in position in Fig. 4. The ends of these arms have accurately-planed faces provided with flanges and holes 2, in the same manner as the inner ends heretofore described, and these faces are planed so as to be parallel to the center line of the main arm. When these arms are in place, as shown in Fig. 4, an unfilled section is left between them, and the circle of



the table is not complete. To complete the table and fill these sections, we provide supplemental arms. (Shown in Fig. 3.) These have lateral arms F G, corresponding in position to those of the main arms, heretofore described, and have plain faces provided with flanges having holes 2 fitted accurately to the faces of the arms C D and the angular openings formed thereby. When the bolts marked 3 are in place through the opposing flanges, as shown in Fig. 4, the sections which are held firmly in place to the main arms are thus held firmly to the central casting or hub. It will be observed that the bolts 4 4, which unite the main arms and the hub, are substantially in radial lines and are under tensile strain, so that there is practically no shearing action upon them, and there is less liability to wear or for the table to become loose and the working-surface uneven. Thus the table by this simple construction, which brings the inner bolts under tensile strain, is made stronger and stiffer, and, as the accuracy of the surface depends upon the plane faces, the surface may be easily made perfectly accurate.

It will be understood that the whole table is constructed on the same principle exactly as illustrated in Fig. 4.

We claim as our invention—

1. A grinding and polishing table for plate-glass, consisting of a central hub having suit-

able faces on its periphery and holes therein, a series of main arms the inner ends of which are provided with flanges and fitted to the faces of the hub, and bolts radially arranged in the holes in the flanges and in the hub, substantially as described.

2. In combination with a central hub and the main arms, the intermediate arms and the lateral arms on the main and intermediate arms, with connections between the main arms and the hub and connections between the ends of the lateral arms, all substantially as described.

3. In combination with a hub or central casting, radial main arms in the table and radially-arranged bolts between said arms and the hub, substantially as described.

4. In combination with a central hub, radial main arms having lateral arms C D, the ends of the arm C being planed so as to lie in parallel plane with the center line of the main arm, and intermediate or filling arms between the main arms, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ANDREW J. SWEENEY.  
JNO. M. SWEENEY.

Witnesses:

SAM. HAZLETT,  
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