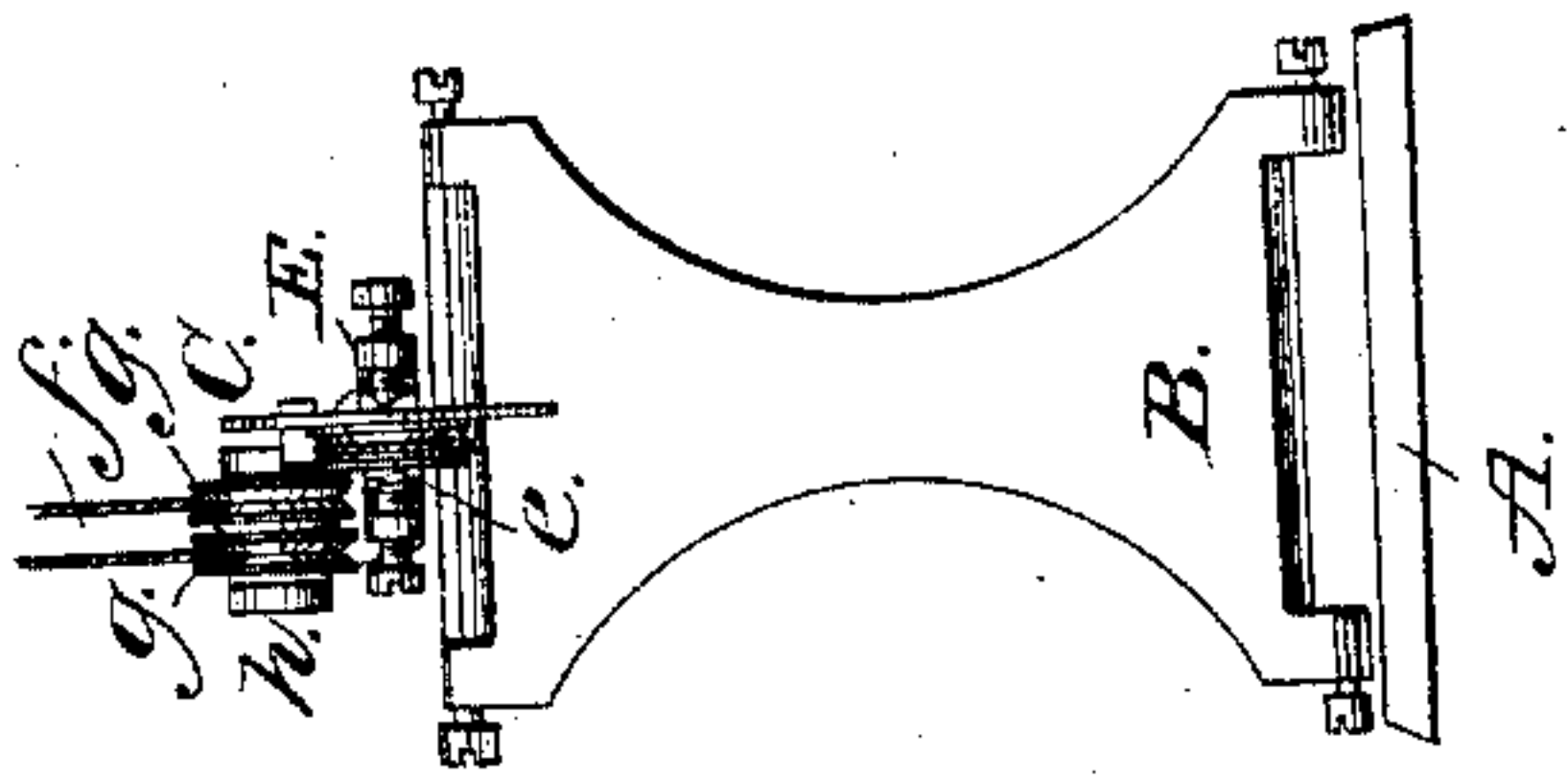


*A. Schwitter,*  
*Ornamenting Glass.*

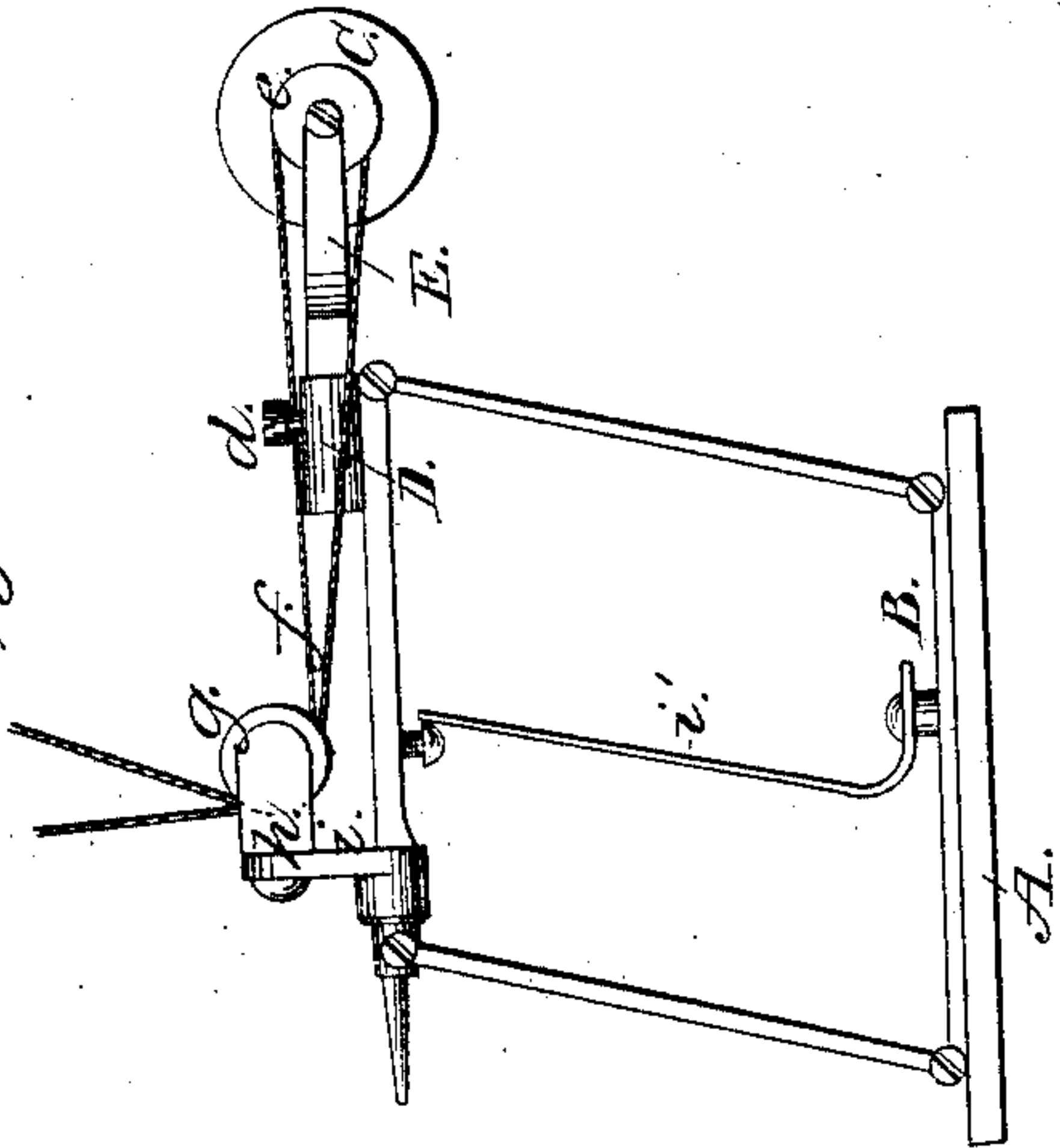
*No 49,555.*

*Patented Aug. 22, 1865.*

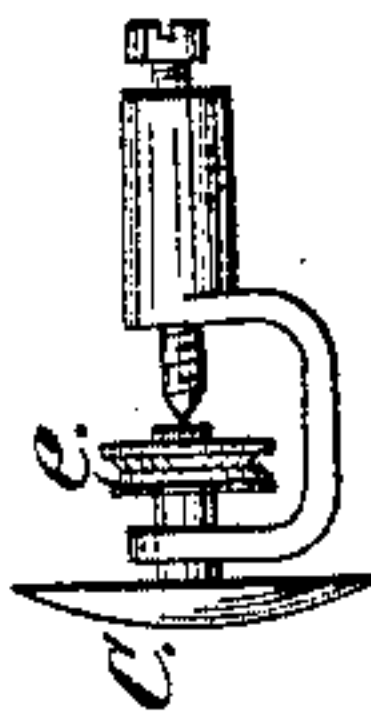
*Fig. 3.*



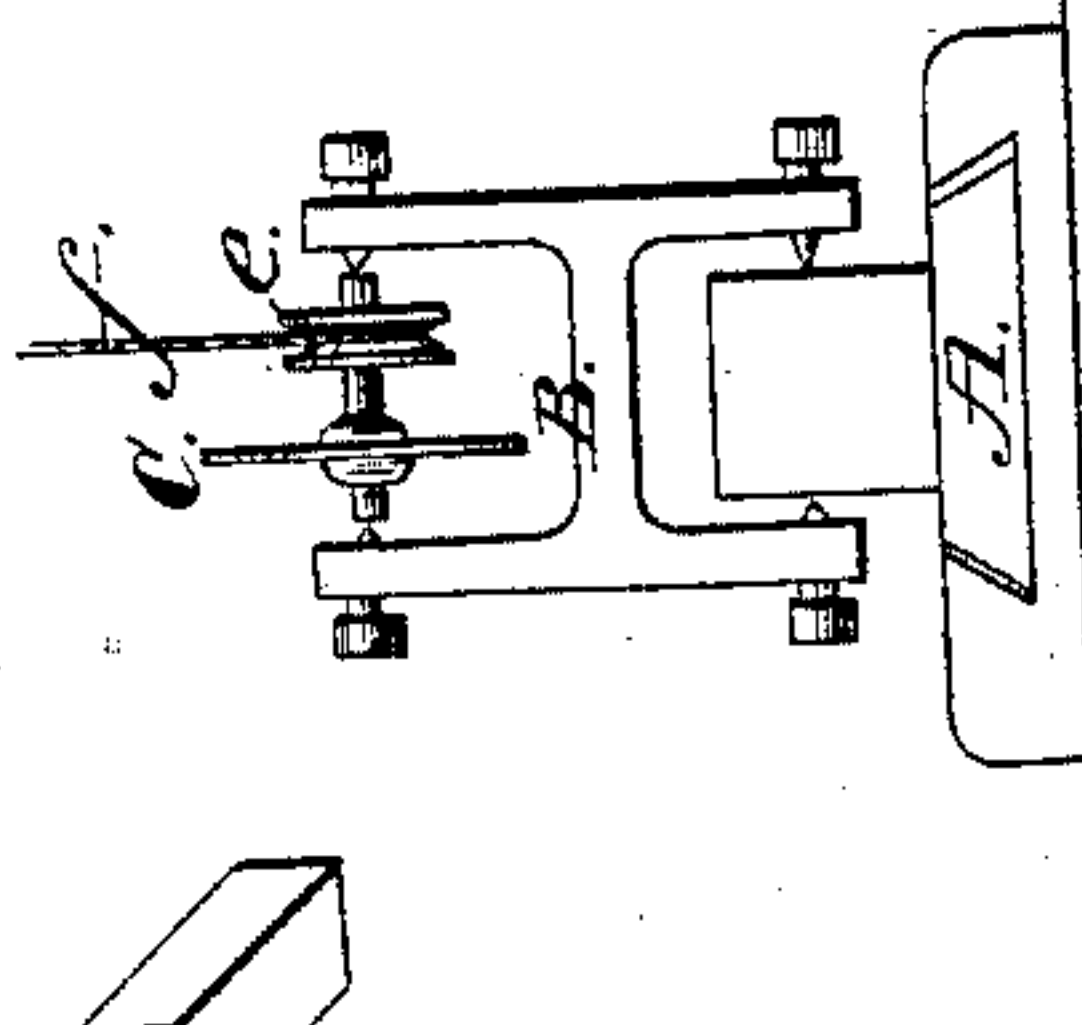
*Fig. 2.*



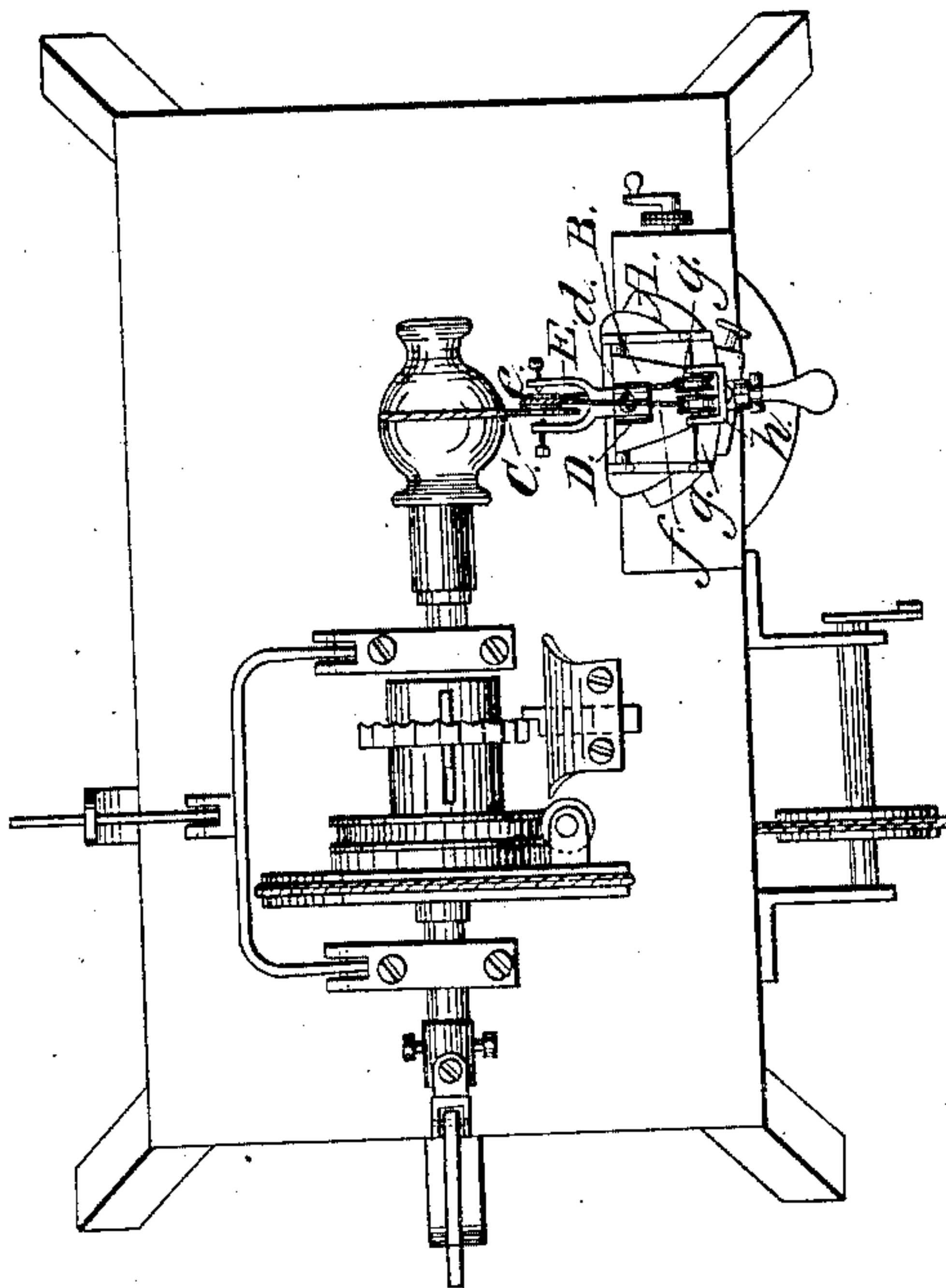
*Fig. 4.*



*Fig. 5.*



*Fig. 1.*



*Witnesses:*

*Wm. O'nearn*  
*Thos. Lusch*

*Inventor:*  
*A. Schwitter*  
*By Munn & Co*  
*Attys*

# UNITED STATES PATENT OFFICE.

ANTON SCHWITTER, OF NEW YORK, N. Y.

## ROSE-ENGINE FOR ORNAMENTING GLASS.

Specification forming part of Letters Patent No. **49,555**, dated August 22, 1865.

*To all whom it may concern:*

Be it known that I, ANTON SCHWITTER, of the city, county, and State of New York, have invented a new and Improved Rose-Engine for Ornamenting Glass, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a plan or top view of this invention. Fig. 2 is a side elevation of the same on a larger scale than the previous figure. Fig. 3 is a front elevation of the same. Fig. 4 is a detached plan of the tool-holder. Fig. 5 shows a modification of the hinged supporter.

Similar letters of reference indicate like parts.

This invention relates to certain improvements in that class of machines on which Letters Patent have been granted to me September 27, 1864. Said patent is based on the use of a revolving cutter wheel or tool, in combination with the usual mechanism of a rose-engine, for the purpose of ornamenting articles of glass or other vitreous material, said revolving tool being secured to a spindle which has its bearings in head-blocks that are adjustable in different directions in such a manner that the rotary tool can be readily moved up to or away from the surface of the article to be ornamented, and that the same can be brought to bear on the side or end of said article with equal facility.

This invention consists in the application of a hinged tool-holder, in combination with a carriage or slide moving back and forth in a suitable rest, in such a manner that by means of the rest the tool can be adjusted to any desired position in the usual manner, and by the hinged holder it can be brought up to or removed from the surface of the work with the greatest ease and facility and without danger of spoiling the work.

A represents a slide or bed plate, which forms a portion of the ordinary slide-rest generally used in rose-engines, and which is so arranged that it can be turned in either direction or moved back and forth, as the nature of the work may require. From this slide rises a hinged supporter, B, which may be made in the form of a parallelogram, the sides of which are hinged together at the corners, as shown in Figs. 1, 2, and 3 of the drawings, or which

may consist of a plain frame (see Fig. 5) hinged to a stud that rises from the slide A; or it may be hinged to the said slide in any other suitable manner.

When the supporter is made as shown in Fig. 5 the loose portion of the frame forms the bearings for the shaft of the revolving tool C; but if made as shown in Figs. 1, 2, and 3 that side of the parallelogram opposite the slide A is provided with a tubular socket, D, to receive the shank of a fork, E, which forms the bearings of the shaft on which the revolving tool is mounted. Said shank is secured in the socket D by a set-screw, *d*, or any other suitable means, so that it can be readily turned in either direction, or that the fork can be removed and replaced by one containing a tool of the same or of different shape.

In order to impart to the tool the requisite rotary motion, a pulley, *e*, is mounted on its arbor, and a cord, *f*, extending round this pulley and under pulleys *g g* up to a pulley or drum on the line-shaft, produces the requisite result.

The pulleys *g g* are mounted in a bracket, *h*, which is adjustable in an arm, *i*, that extends from the supporter B, so that by shifting the same the tension of the cord or belt can be regulated, and said belt may be so placed that by its action the tool is pulled back from the work; but, if desired, a spring, *i'*, may be applied, which acts on the supporter in such a manner as to keep the tool off from the work.

It is obvious that the supporter B may be arranged in any desired position, either vertical, oblique, or horizontal; but in most cases it will be placed in an upright position, as shown in the drawings.

By means of this improvement I am enabled to do the work with facility and dispatch, the tools can be changed with little loss of time, and the danger of injuring or breaking the work by sudden jerks or jars is greatly reduced.

I claim as new and desire to secure by Letters Patent—

The use of a hinged tool-holder, in combination with the slide A, or its equivalent, fitting into the rest of a rose-engine or equivalent mechanism; constructed and operating substantially as and for the purpose set forth.

ANTON SCHWITTER.

Witnesses:

W. HAUFF,  
M. M. LIVINGSTON.