

(No Model.)

J. J. BAUSCH.
Microscope.

No. 230,688.

Patented Aug. 3, 1880.

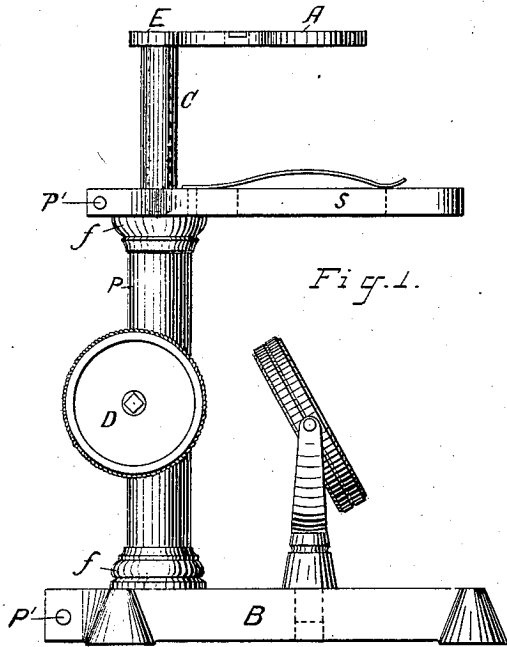


Fig. 1.

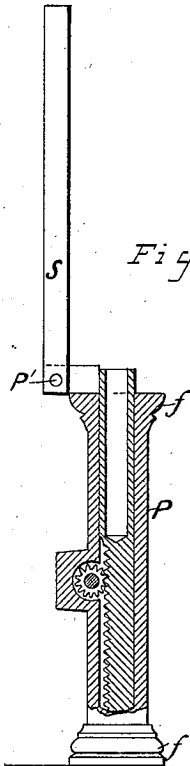


Fig. 3.

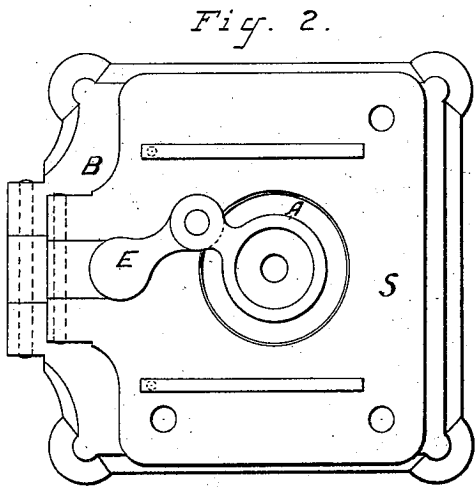


Fig. 2.

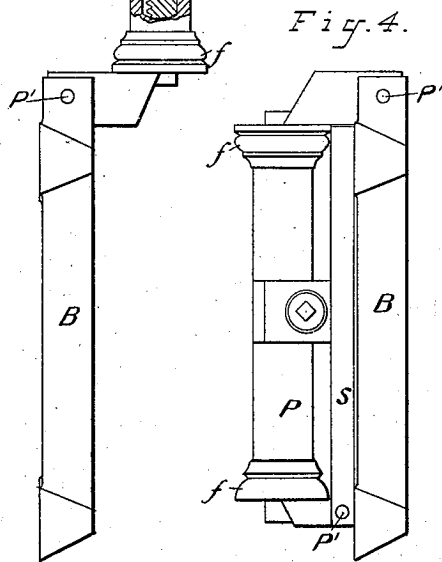


Fig. 4.

WITNESSES

Ed. Rausch
John B. Klingler

INVENTOR

John J. Bausch

UNITED STATES PATENT OFFICE.

JOHN J. BAUSCH, OF ROCHESTER, NEW YORK.

MICROSCOPE.

SPECIFICATION forming part of Letters Patent No. 230,688, dated August 3, 1880.

Application filed May 24, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. BAUSCH, of Rochester, New York, have invented an Improvement in Dissecting-Microscopes, of which the following is a specification.

The object of my invention is to construct an easily portable and efficient dissecting-microscope, which, when in use, shall have all the requirements and advantages needed for effective service, being firm and substantial, having a considerable range of motion for the optical part, while the object remains stationary and firm under the action of knives, needles, brushes, &c., but which may, when not required for use, be folded together with ease, and so be made to occupy but a small space, thus having great portability.

The method by which I attain these objects will be best understood by a description of the instrument.

In the drawings which accompany and form part of this specification, Figure 1 is a side elevation of the microscope unfolded as when in use. Fig. 2 is a plan of the same. Fig. 3 shows the way in which the several parts unfold, so as to assume the positions shown in Figs. 1, 2, and 4. Fig. 4 shows the instrument folded up for portability.

The several parts are designated by the same letters in each figure.

As seen in Fig. 1, the microscope consists of the base B, the hollow supporting-pillar P, the stage S, and the carrier A E, by which the optical part is held and adjusted. This carrier consists of a rod upon which a rack is cut or fastened, and which is moved by a pinion, of which D is the milled head. To this rod is attached the arm A E, which is easily removable. This arm E is straight or jointed, as shown in Figs. 1 and 2, and into the opening at one end of it are slipped or screwed the magnifying-glasses. The distance of the magnifying-glasses from the object is changed for adjustment of focus by means of the rack and pinion, and for a longer distance the arm E, which is adjustable on the rod C, can be employed.

The entire instrument is so constructed as to fold together, the following being the method of connecting the several parts so as to secure the required firmness and rigidity when in use: The pillar P has at each end a projection, which extends not only beyond the circular part, but also at right angles to its axis, as shown in Fig. 3. The projection at the lower end fits into a slot in the base, and that at the upper end fits into a similar slot in the stage, and in both cases, pins passing through the projection and the base and stage, form hinges, upon which these (the base and stage) may turn, as shown in Fig. 3. When the milled head D and the arm A E (both of which are removable) have been taken off, the stage may be turned up and over, so as to lie against the rear of the pillar P, and then the stage and pillar may be folded over on the base, as shown in Fig. 4.

When opened out, as in Fig. 1, the pillar is firmly secured to the base and rests on it by the flange *f*, and the stage also rests firmly on the corresponding flange *f'*, and being at the same time held by the pins *P' P'*, the result is a very firm and rigid instrument.

I am aware that microscopes so arranged as to fold for portability have been made heretofore. I therefore make no claim to the mere folding of the microscope for the purpose of rendering it portable; but

What I do claim, and desire to secure by Letters Patent, is—

My method of combining the base B, the pillar P, with its arrangements for receiving and adjusting the optical part of the instrument, and the stage S, so that when folded they shall occupy but little space, and when arranged for use the stage shall have a solid bearing on the pillar, in the manner and for the purpose substantially as herein shown and described.

JOHN J. BAUSCH.

Witnesses:

ED. BAUSCH,
JOHN B. KLINGLER.