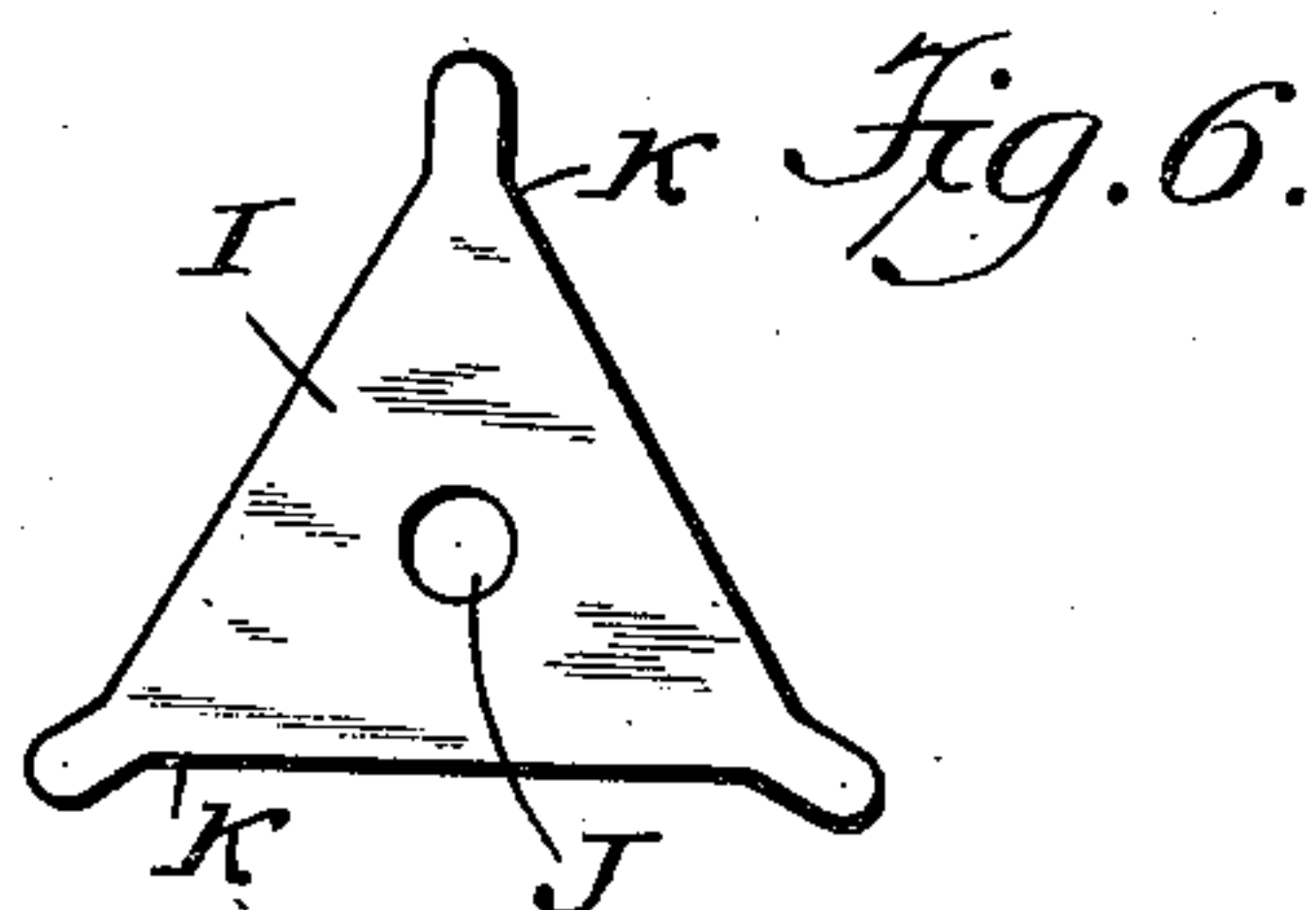
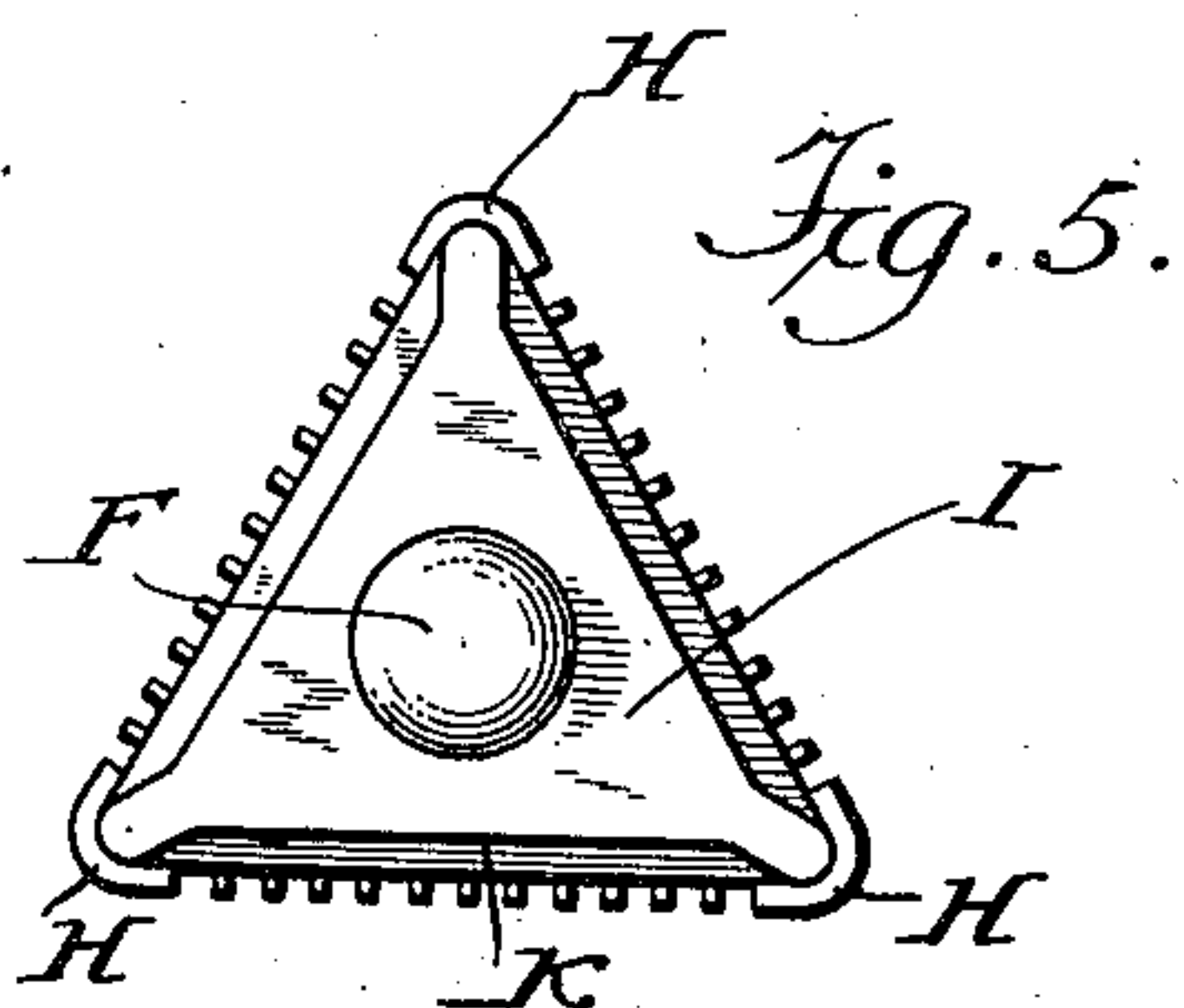
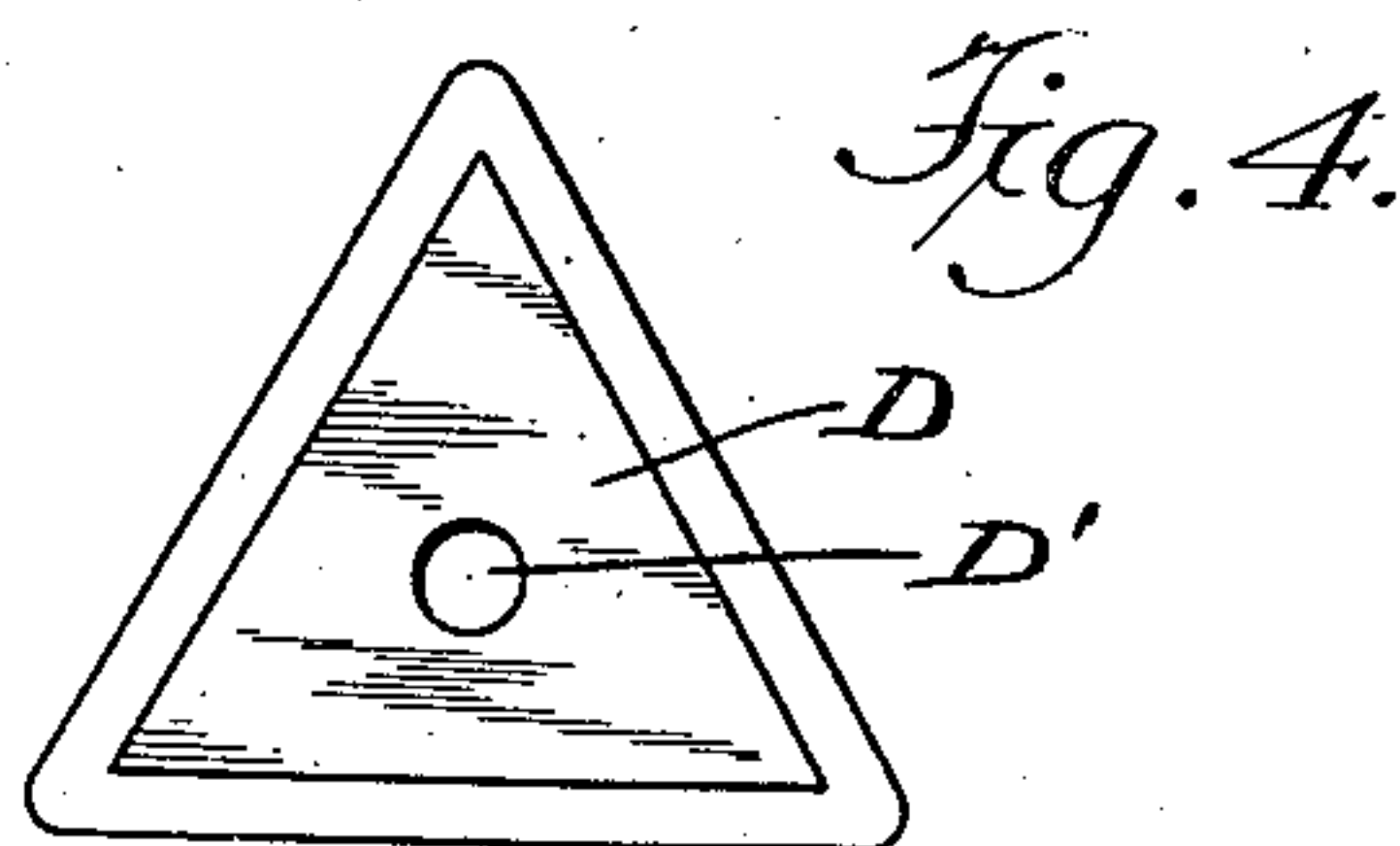
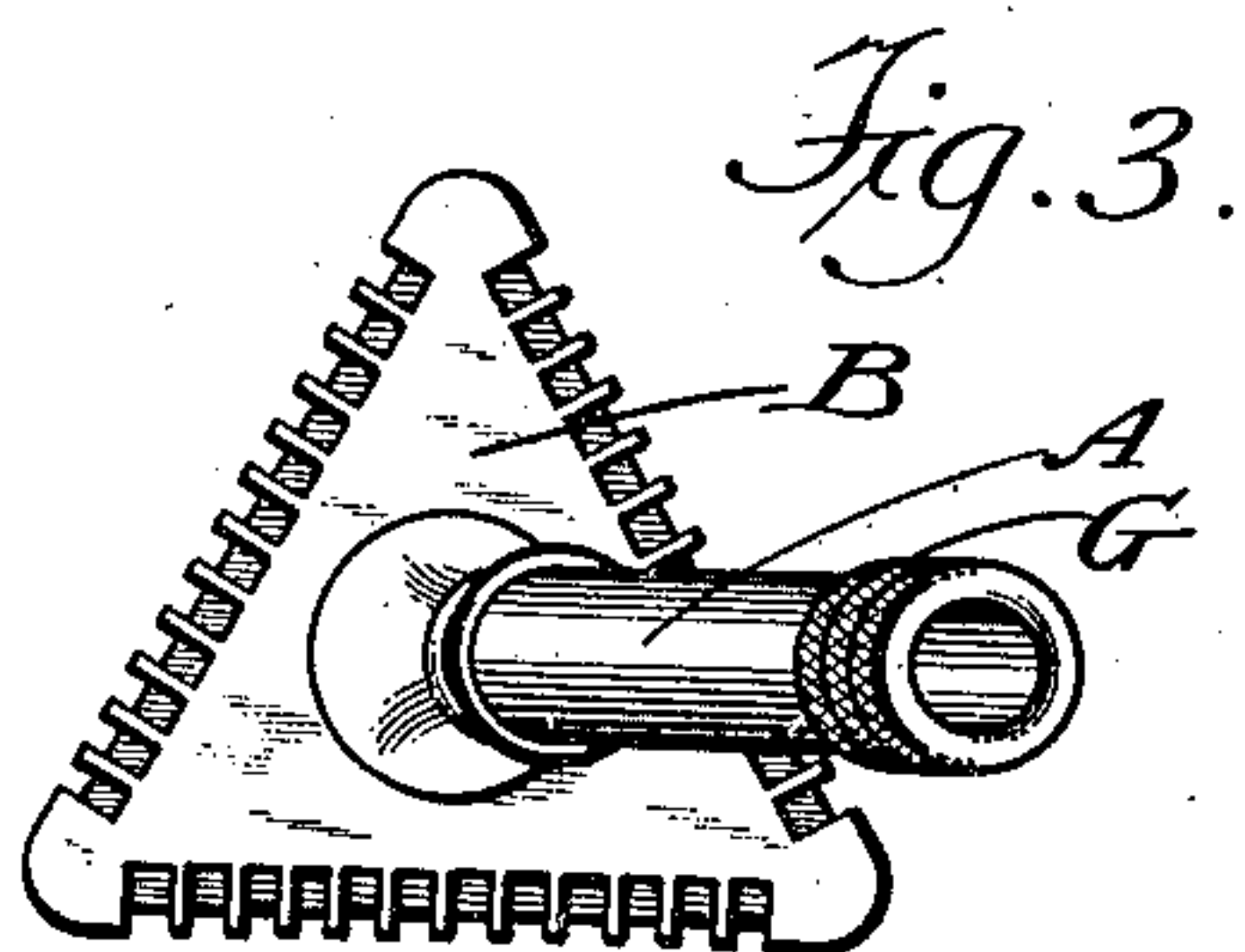
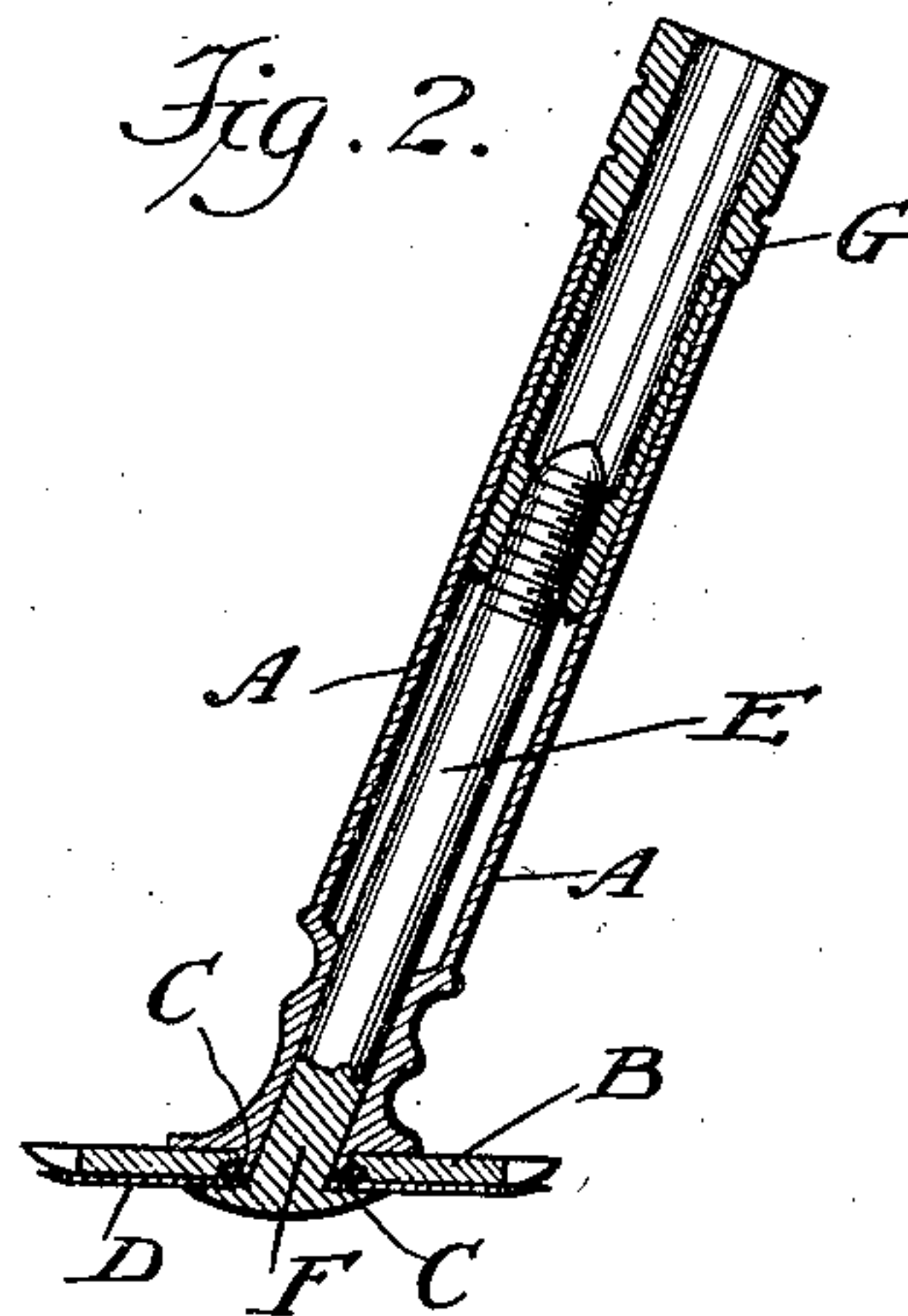
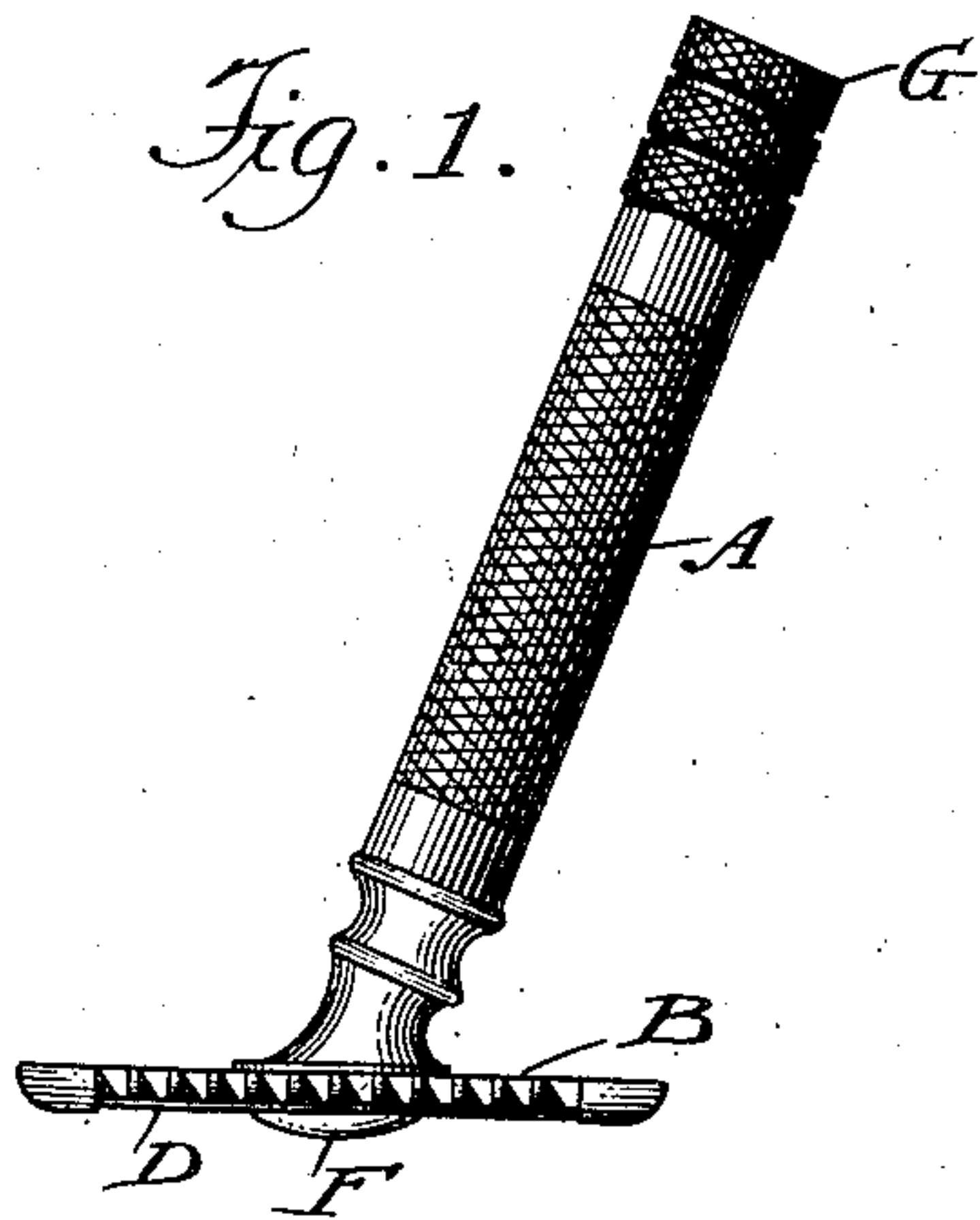


No. 819,987.

PATENTED MAY 8, 1906.

L. B. GAYLOR.  
SAFETY RAZOR.

APPLICATION FILED SEPT. 21, 1905.



Witnesses  
A. R. Spelman  
F. M. Donstach

Leonard B. Gaylor Inventor  
By his Attorney Phillips Abbott



# UNITED STATES PATENT OFFICE.

LEONARD B. GAYLOR, OF STAMFORD, CONNECTICUT.

## SAFETY-RAZOR.

No. 819,987.

Specification of Letters Patent.

Patented May 8, 1906.

Application filed September 21, 1905. Serial No. 279,660.

*To all whom it may concern:*

Be it known that I, LEONARD B. GAYLOR, a citizen of the United States, and a resident of the city of Stamford, county of Fairfield, State of Connecticut, have invented a new and useful Improvement in Safety-Razors, of which the following is a specification, reference being had to the accompanying drawings, in which I illustrate the invention as applied to a razor having a triangular blade and coacting parts, because that is the form I prefer. Obviously, however, many features of my invention are adapted to razors having blades and coacting parts of other forms.

Figure 1 illustrates an elevation of the device complete. Fig. 2 illustrates a vertical sectional view. Fig. 3 illustrates a perspective view in plan. Fig. 4 illustrates a plan of the under side of the blade. Fig. 5 illustrates a view of the under side of the razor when a backing-plate is employed. Fig. 6 illustrates a plan view of the backing-plate detached.

The invention is characterized by great simplicity, convenience in use, and low cost. It is also adapted to both the shearing and straight cross-cut.

A represents the handle, and B the guard-plate. These parts are or may be connected together by interlocking surfaces C, which are not rigid. On the contrary, when not under pressure the guard-plate may be revolved on the handle. The plane of the under side of the guard-plate lies, preferably, slightly below that of the end of the handle below the dovetail, so that the pressure of the threaded bolt about to be described upon the blade will clamp all the parts immovably together.

D is the blade. It is preferably, but not necessarily, triangular in shape, each of its edges being sharpened for shaving, and of course the guard-plate B is of corresponding shape. The blade is centrally perforated, as seen at D'.

E is a bolt having a thin flat head F set at an angle to its axis, and the upper end of the bolt is threaded to correspond with threads cut in the interior of a thumb-nut G. The end of the thumb-nut G projects beyond the upper end of the handle and may beneficially be knurled, as shown, so that it may be conveniently turned.

The guard-plate B has at its corners short flanges or lateral projections H, within which

the corners of the blade are adapted to enter, so that the flanges act as centering and registering devices for the blade, whereby its cutting edges are made to properly conform to the toothed edges of the guard-plate, and they also act as sheaths for the sharp corners of the blades. The blade may be made of material sufficiently stiff to effectively resist the pull of the beard without any backing-plate, or, if preferred, the blade may be made of steel so thin that its flexibility would be objectionable without additional support. In this case I provide a back plate I, preferably of metal. It is centrally perforated, as at J, and has the triangular shape of the blade and guard-plate, and its corners are preferably shaped to coincide with those of the blade that they may be received within and supported and registered by the curved flanges H. The edges of the back plate are recessed, as seen at K, so that they may not interfere with the cutting edges of the blade.

The operation is obvious. The blade and back plate, if one be used, are placed upon the guard-plate with their corners resting in the curved flanges at the corners of the guard-plate, and when in this position they must both of them properly register with the guard-plate, all the edges of the respective parts being parallel. The bolt F is then passed through the perforations in the blade and in the lower part of the handle and through the perforation in the blade-plate, if one be used, and the head of the bolt is arranged to lie flat against the back of the blade or of the back plate, as the case may be. The thumb-nut is then entered within the upper end of the handle and the threads on the bolt engaged with it, and when screwed up tight all the parts will be rigidly held in position for operation.

It will be noted that the handle may be set at any desired angle relative to the guard-plate, thus securing the "shearing cut," so-called, and that if arranged to project directly over the corners of the guard-plate then a right and left shearing cut may be secured at the two adjacent and appropriate angles or sides of the blade, or, if preferred, the handle may be arranged to project at right angles to any one of the sides, in which case the straight draw cut may be had.

It will be apparent to those who are familiar with this art that the base of the handle



may be made at right angle to its axis instead of at an angle thereto; but I prefer the construction shown, because thereby the shearing cut is more effectively and conveniently attained. Also the guard-plate may be rigidly attached to the handle or made integral therewith; but I prefer that it should be rotatable on the handle, because if so the inclination or overhang of the handle relative to it may be changed to suit the preference of the user. I also prefer that it should be dovetailed or otherwise loosely, but permanently, connected with the handle, because if so it will not fall away therefrom during the change of blades, and this is a convenient feature.

I do not limit myself to the details of construction described and illustrated, for it will be obvious to those who are familiar with this art that modifications may be made therein without departing from the essentials of the invention.

I claim—

1. In a safety-razor the combination of a handle, a centrally-perforated guard-plate, a centrally-perforated blade, a bolt, upon which the guard-plate and blade both rotate, and a thumb-nut which engages with the bolt within the handle, the bolt having a flattened head which overlaps the blade and clamps it to the guard-plate.

2. In a safety-razor the combination of a handle and a guard-plate set at an angle relative to each other, a bolt, and a thumb-nut, the bolt having a flattened head arranged at substantially the same angle relative to the axis of the bolt as that existing between the handle and the guard-plate and which overlaps the blade and clamps it to the guard-plate.

3. In a safety-razor the combination with a handle, a guard-plate, a blade and a back plate, of a bolt and a thumb-nut which engage each other within the handle, the bolt having a flattened head which overlaps the back plate and clamps it and the interposed blade against the guard-plate, and means to register the guard-plate, blade and back plate.

4. In a safety-razor the combination of a handle and a guard-plate arranged at an angle relative to each other, a blade, a back plate, a bolt and a thumb-nut, the bolt having a flattened head arranged at the same angle relative to the axis of the bolt as that existing between the guard-plate and the handle, and which overlaps the back plate and clamps it, the blade and the guard-plate together, and means to register the guard-plate, blade and back plate with each other.

5. In a safety-razor the combination with a handle of a guard-plate having a registering device for the blade at each corner, a blade which registers with the guard-plate, a bolt and a thumb-nut which engage each other

within the handle, the bolt having a flattened head which overlaps the blade and clamps it to the guard-plate.

6. In a safety-razor the combination with a handle of a guard-plate having a registering device for the blade at each corner, a blade which registers with the guard-plate, a back plate which likewise registers with the guard-plate, a bolt and a thumb-nut which engage each other within the handle, the bolt having a flattened head which overlaps the back plate and clamps it and the blade to the guard-plate.

7. In a safety-razor the combination of a handle and a guard-plate, rotatably connected together, registering and corner-protecting devices for the blade located at the corners of the guard-plate, a bolt and a thumb-nut, the bolt having a flattened head arranged at substantially the same angle relative to the axis of the bolt as exists between the guard-plate and handle, the head of which overlaps the blade and clamps it to the guard-plate.

8. In a safety-razor the combination of a handle and a guard-plate rotatably connected together and arranged at an angle relative to each other, the guard-plate having registering and protecting devices for the corners of the blade located at its corners, a back plate which registers with the registering devices on the guard-plate, a bolt and a thumb-nut, the bolt having a flattened head which overlaps the back plate and clamps it and the blade to the guard-plate.

9. In a safety-razor the combination of a handle, a guard-plate having laterally projecting registering devices for the blade and back plate at each of its corners, a blade and a back plate both of which fit within the registering devices on the guard-plate and means to clamp the back plate and blade and guard-plate to the handle.

10. In a safety-razor the combination of a handle and a triangular guard-plate set at an angle relative to each other, the guard-plate having a registering device for the blade at each of its corners, a triangular blade sharpened on each edge and which rests against the guard-plate and is registered by its registering devices, a bolt located partly within the handle and a thumb-nut which engages with the bolt, the bolt having a flattened head arranged at an angle to the axis of the bolt and which overlaps the blade and clamps it to the guard-plate.

11. In a safety-razor the combination of a handle and a triangular guard-plate set at an angle relative to each other, the guard-plate having a registering device for the blade at each of its corners, a triangular blade sharpened on each edge and which rests against the guard-plate and is registered by its registering devices, a triangular back plate, the edges of which are recessed between its cor-



ners, which corners register with the registering devices on the guard-plate, a bolt located partly within the handle and a thumb-nut which engages with the bolt, the bolt having a flattened head arranged at an angle relative to its axis and which overlaps the back plate and clamps it and the blade against the guard-plate.

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEONARD B. GAYLOR.

Witnesses:

F. M. DOUSBACH,  
PHILLIPS ABBOTT.