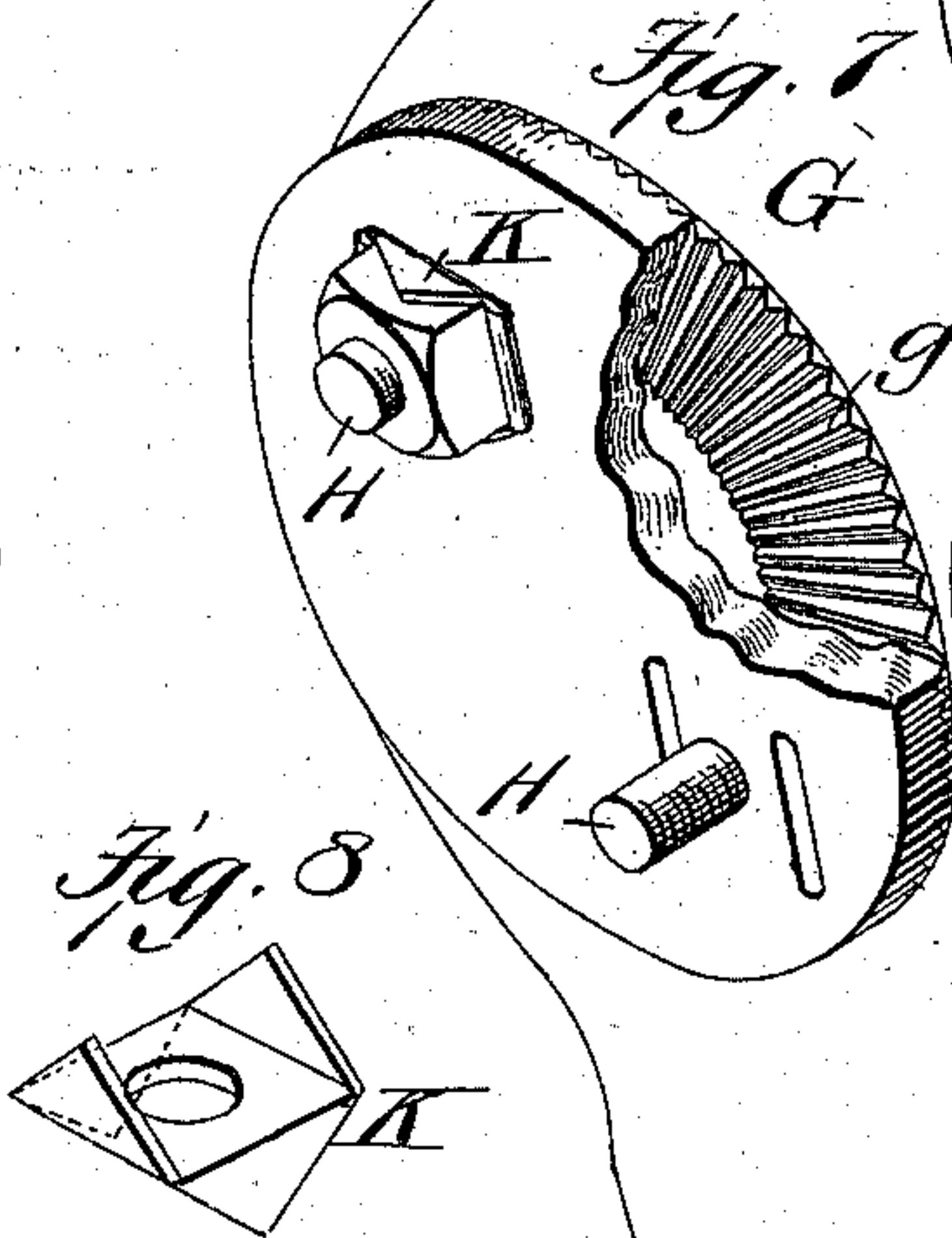
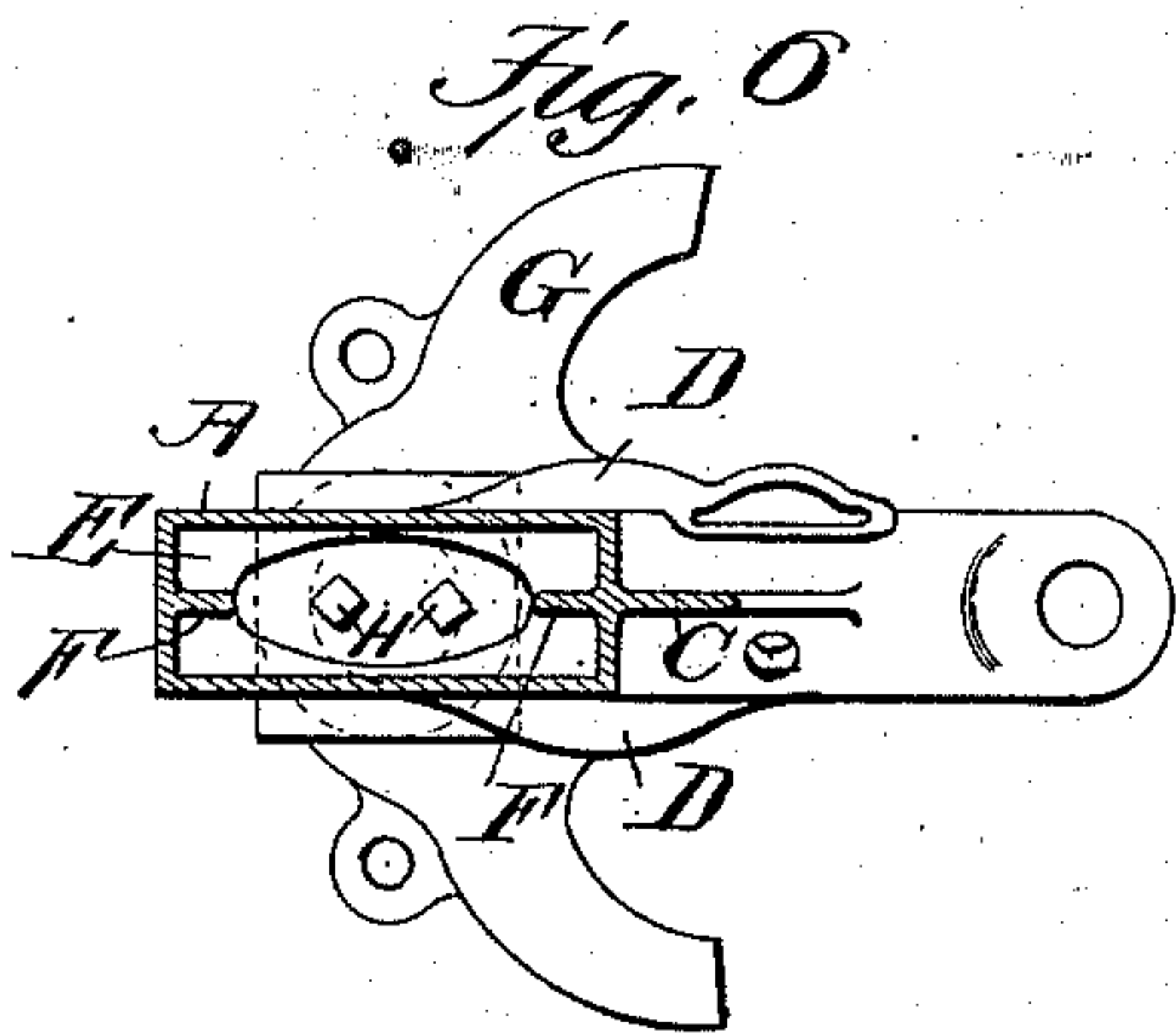
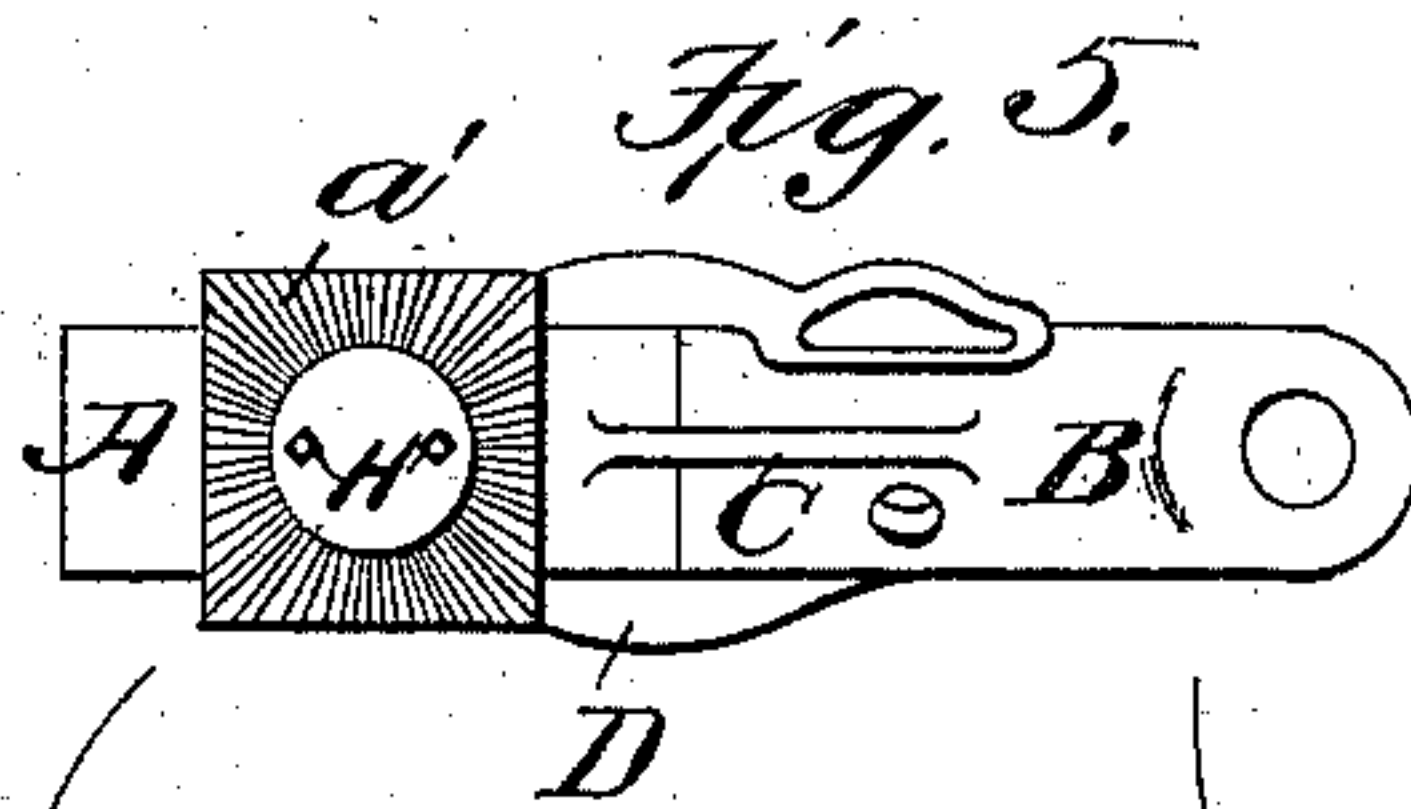
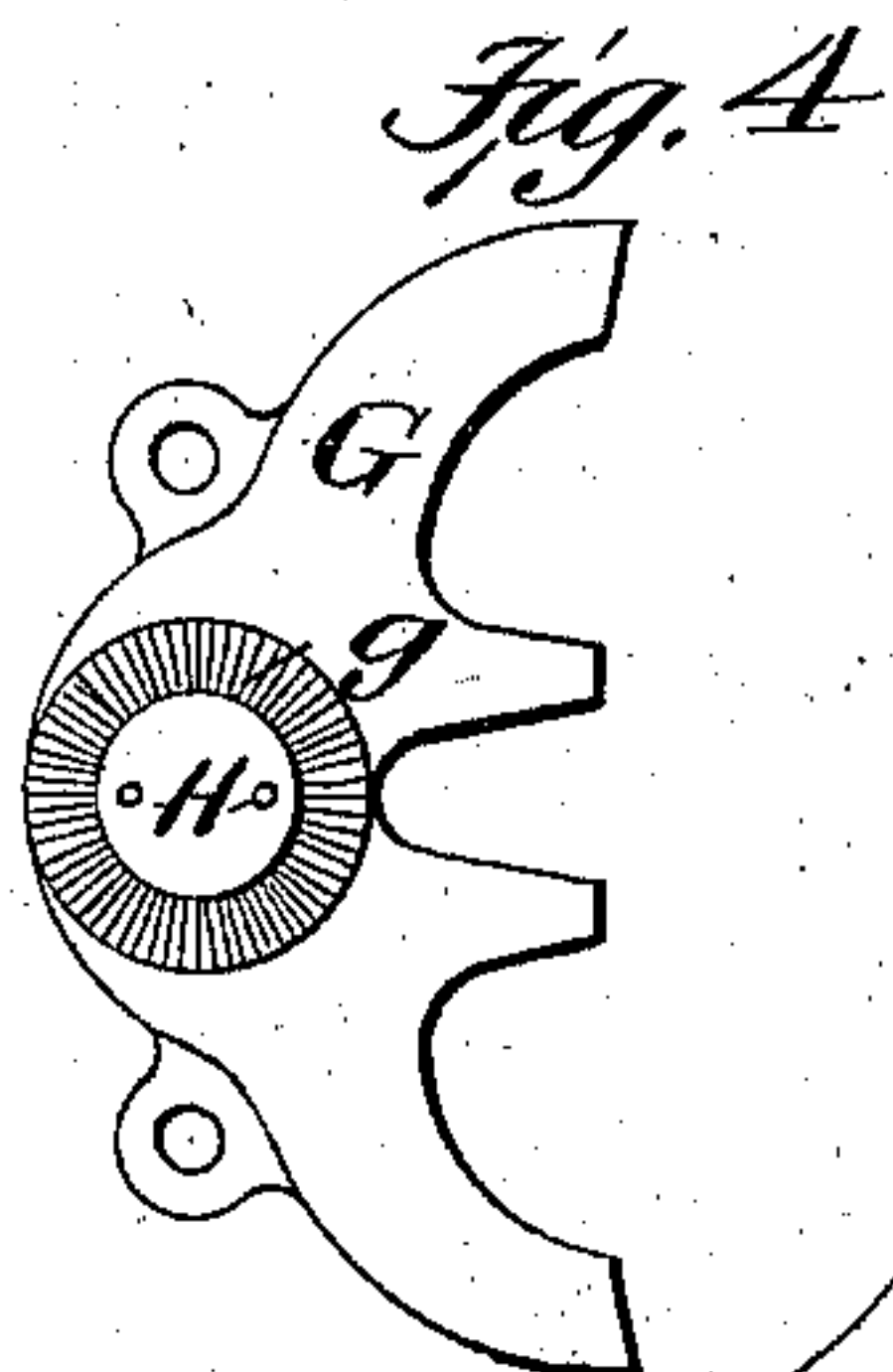
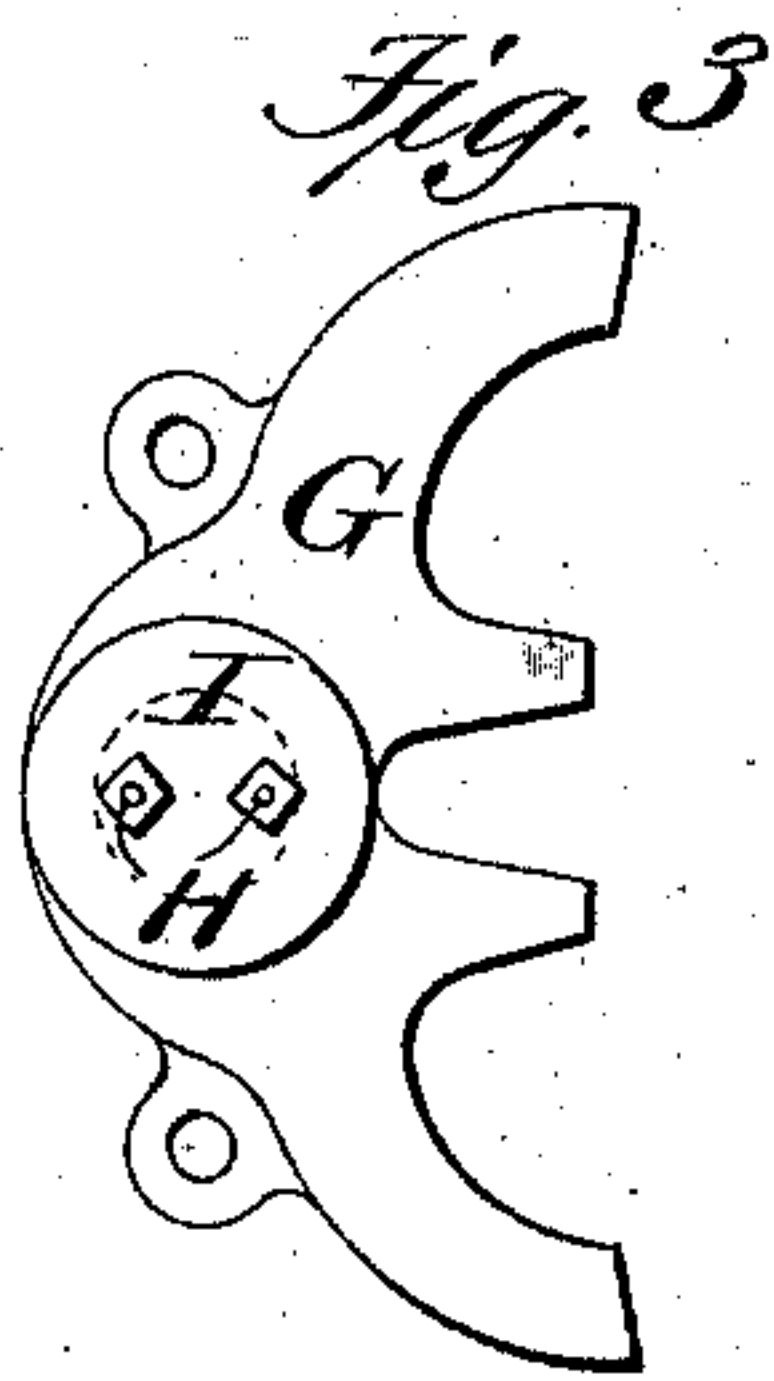
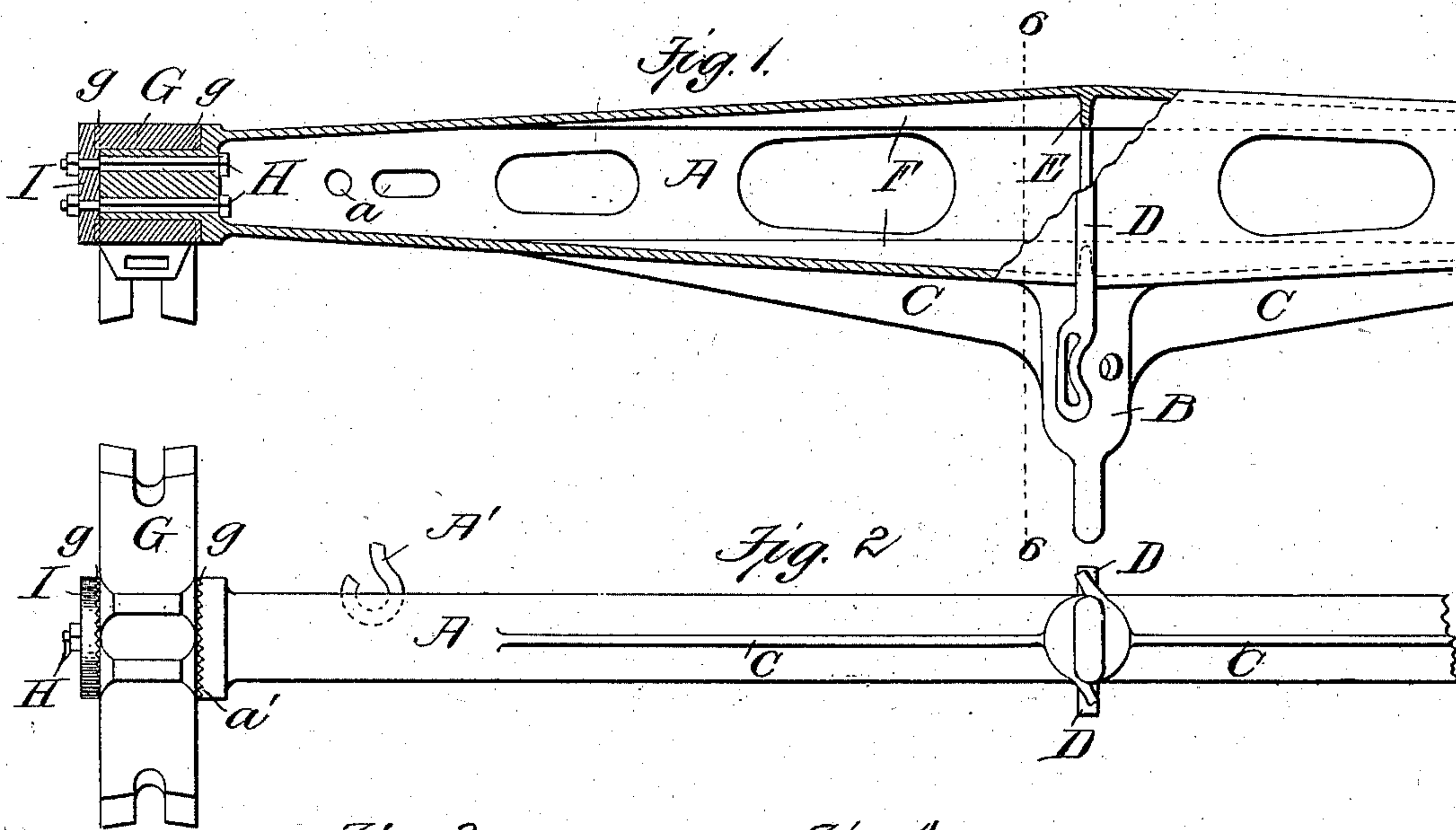


(No Model.)

F. L. LAMKEY.
BRAKE BEAM.

No. 558,966.

Patented Apr. 28, 1896.



Witnesses:
J. R. Arnold
Hugh C. Wagner.

Inventor:
Frank L. Lamkey
by Paul Bakewell
his atty.

UNITED STATES PATENT OFFICE.

FRANK L. LAMKEY, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
PETER H. MURPHY, OF EAST ST. LOUIS, ILLINOIS.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 558,966, dated April 28, 1896.

Application filed January 20, 1896. Serial No. 576,163. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. LAMKEY, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Brake-Beams, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a top plan view of my improved brake-beam. Fig. 2 is a front elevational view of the same. Fig. 3 is an end elevational view of the head with the locking-disk in position. Fig. 4 is a similar view, the locking-disk being moved. Fig. 5 is an end elevational view of the beam. Fig. 6 is a cross-sectional view through the beam, taken on line 6 6, Fig. 1. Fig. 7 is an enlarged view of the locking-disk on the brake-head, and Fig. 8 is an approved form of locking-washer for the nuts which hold the locking-disk in position.

This invention relates to a new and useful improvement in brake-beams; and it consists in the novel construction of the beam proper, and also the novel means of locking the brake-heads in an adjusted position to accommodate the throw of the beam.

The beam proper is in the form of a hollow body A, the ends of which are preferably enlarged to form shoulders to receive the brake-head, said ends being also formed with cylindrical portions upon which the brake-heads are mounted.

B indicates a fulcrum projection to which the brake-lever is connected, said projection being slotted for that purpose. This projection is braced against lateral strain by webs C, arranged at the sides thereof and receding to the front wall of the beam. To brace this projection against vertical strain, I arrange flanges D above and below the same, which flanges extend rearwardly over the body of the beam. The interior of the body is braced at this point by a flange E, which extends around, bracing the four walls of said body. The front and back walls are additionally braced by flanges F, which extend longitudinally the beam for some distance on each side. As shown in Fig. 1, I prefer to form openings *a* in the body of the beam for the en-

gagement of a safety-hook A', if such is desired to be used. The body of the beam may be lightened by the removal of material at such points where strength will not be sacrificed.

G indicates the brake-heads of any ordinary or approved construction, which are mounted upon the cylindrical projections on the end of the beam. These brake-heads, as shown in Figs. 4 and 7, are provided with projections or recesses, or both, preferably entirely around and adjacent to the opening through which the beam projection passes, said projections or recesses being on each side of the head.

In the drawings I have shown radially-disposed corrugations *g* as illustrative of one form of engagement between the brake-heads and their associate parts. The shouldered ends of the beam are formed with projections or recesses, or both, to engage with like parts on the brake-head. In the drawings I have shown this shouldered portion of the beam as having a radially-corrugated face *a'*, with which similar corrugations *g* on the heads are adapted to cooperate.

H indicates bolts passing through the cylindrical end of the beam and beyond the same, upon the ends of which is mounted a locking-disk I. There are preferably two bolts in each end of the beam, and said bolts are formed with squared shanks on their inner ends to prevent their rotation. It is obvious that a greater number of bolts could be employed, if desired. The nuts which are received on the ends of the bolts to clamp the disk I in position are preferably locked, when seated home, to prevent a return movement and a consequent loosening of the head. I have shown a simple form of nut-lock in the drawings, consisting of a washer K, formed with inturned projections fitting in recesses in the locking-disk I. When the nuts are seated home, other projections on the washer are bent outwardly against the squared face of the nut, and the nut is thus prevented from loosening.

The "locking-disk" I, as I have termed it, is formed with projections or recesses, or both, to engage corresponding parts on the brake-head. This disk is shown in the drawings as

being faced, however, with radial corrugations to coöperate with like parts on the brake-head.

The parts being constructed as above, when the beam is hung and it is desired to adjust the brake-heads to accommodate the throw of the beam, it is only necessary to loosen the locking-disks I and rotate the heads until they are in their proper positions. This can easily be done by forcing the shoes against the tread of the wheel to obtain a solid bearing, and when the heads are in this position, tightening the nuts, forcing the locking-disk in position, and clamping the heads between the locking-disks and the shoulders of the beam. The corrugations fitting in each other, when the head has been clamped, will prevent the head from rotating, and the corrugations extending around a complete circle will make a positive connection between the head and its associate parts on all sides. This continuous circular contact between the head and beam and the head and locking-disk is, however, not absolutely necessary, as several recesses in the beam-shoulder and locking-disk and projections on the head to engage these recesses at such points at which the head might be adjusted would suffice, as there is little strain placed upon the head which would tend to revolve it on its bearing. Again, a spider-plate instead of a solid locking-disk, even if said spider-plate contacted with the head at three or four points only, would form an effectual lock.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my device may be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a hollow body forming the beam proper, of a fulcrum projection, and flanges extending from said projection rearwardly over the hollow body for strengthening said projection against vertical strain; substantially as described.

2. The combination with a hollow body forming the beam proper, of a fulcrum projection extending from said body, and lateral flanges for bracing said fulcrum projection

against lateral strain; substantially as described.

3. The combination with a hollow body forming the beam proper, of a fulcrum projection, extending from said body, longitudinally-disposed flanges for bracing said projection against lateral strain, and transversely-disposed flanges for bracing said projection against vertical strain; substantially as described.

4. In a brake-beam, the combination with the brake-heads, of a hollow body, forming the beam proper, a fulcrum projection extending from said body, a flange E for strengthening the body transversely immediately in the rear of said projection, and longitudinally-disposed flanges F for strengthening the front and back walls of said body; substantially as described.

5. The combination with a brake-beam having shoulders and cylindrical projections on its ends, brake-heads revolubly mounted on said projections, bolts passing through said projections, locking means mounted upon said bolts, nuts on the bolts which impinge against said locking means, said brake-heads engaging the shoulders and locking means whereby they are held in adjusted positions, and means for locking the nuts upon said locking means; substantially as described.

6. The combination with a brake-beam having shoulders and cylindrical projections on its ends, said shoulders being faced with radial corrugations, brake-heads mounted upon said projections and having radial corrugations around the openings through which the projections pass, bolts passing through said projections, locking-disks strung on said bolts, the faces of which disks are formed with radial projections, and nuts on the ends of the bolts for holding said locking-disks in position and clamping the heads therebetween and the beam-shoulders in adjusted positions; substantially as described.

In testimony whereof I hereunto affix my signature, in presence of two witnesses, this 7th day of January, 1896.

FRANK I. LAMKEY.

Witnesses:

F. R. CORNWALL,
HUGH K. WAGNER.