

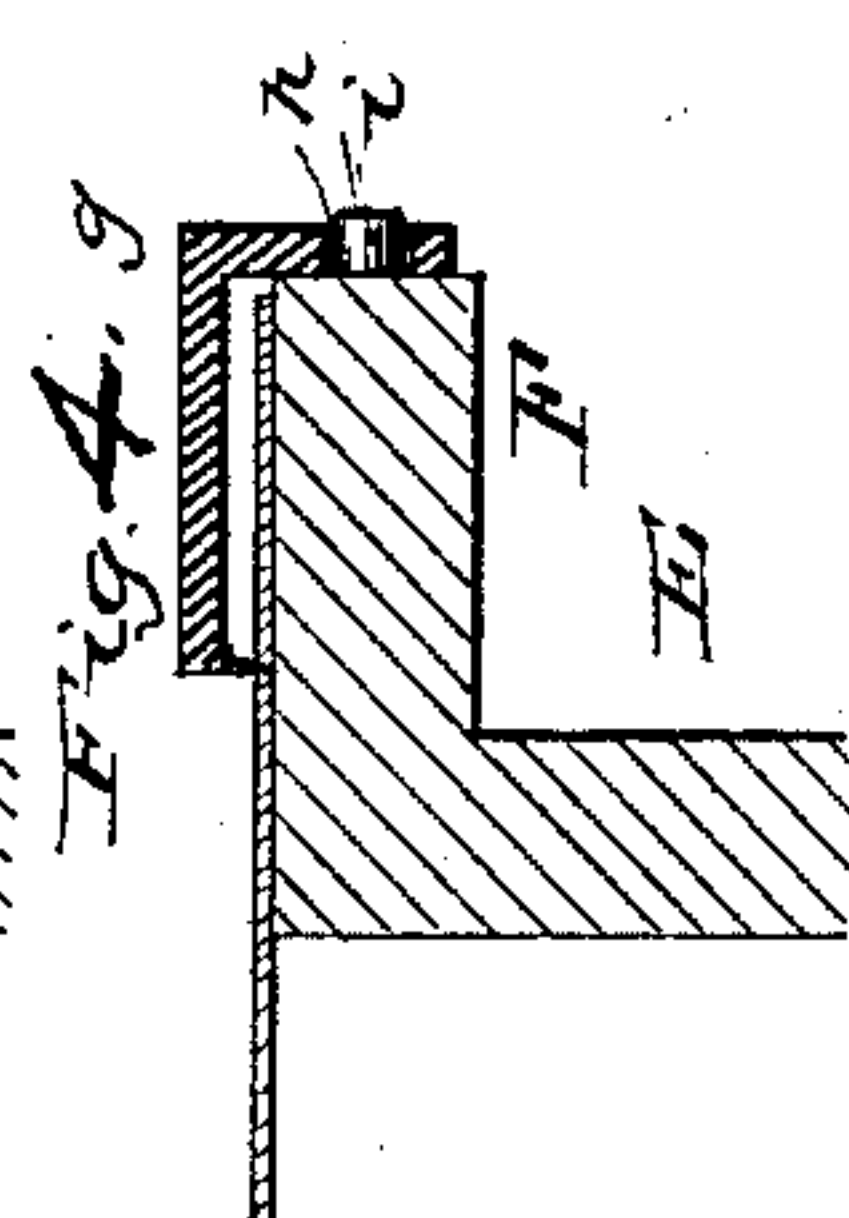
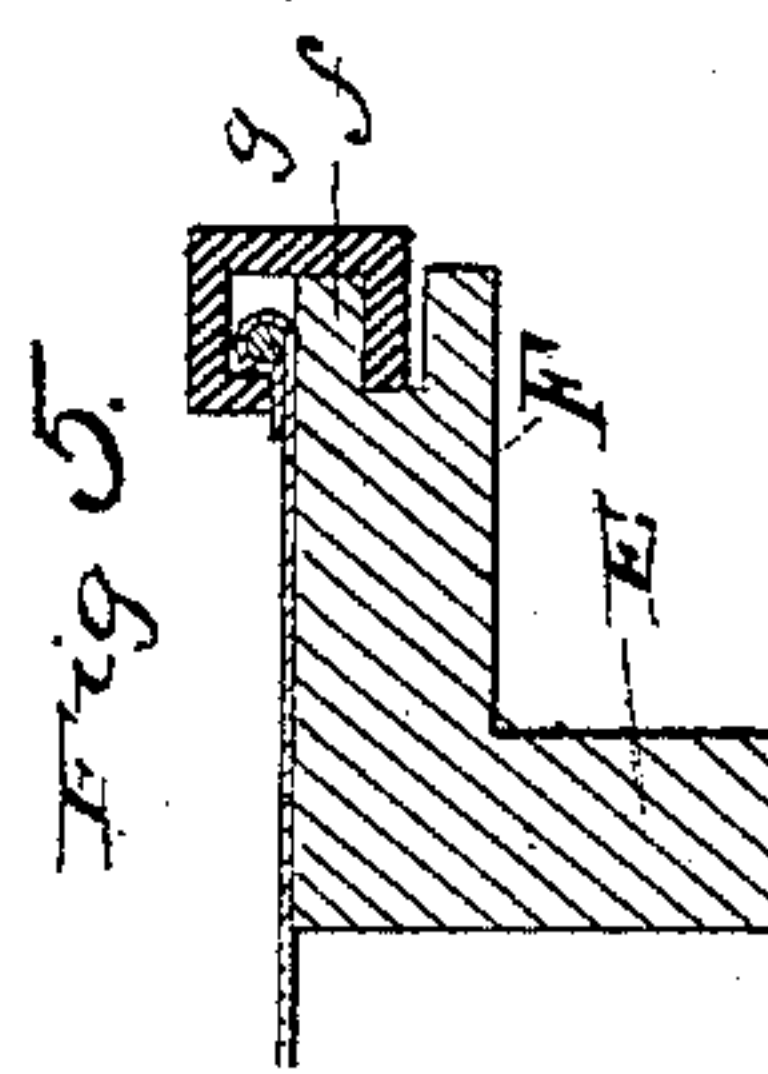
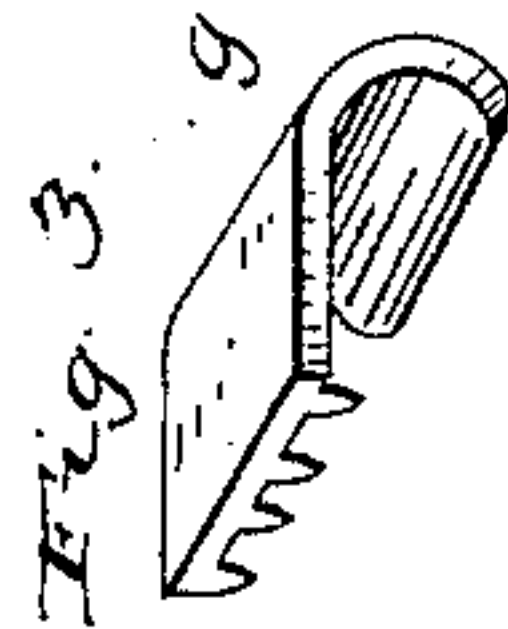
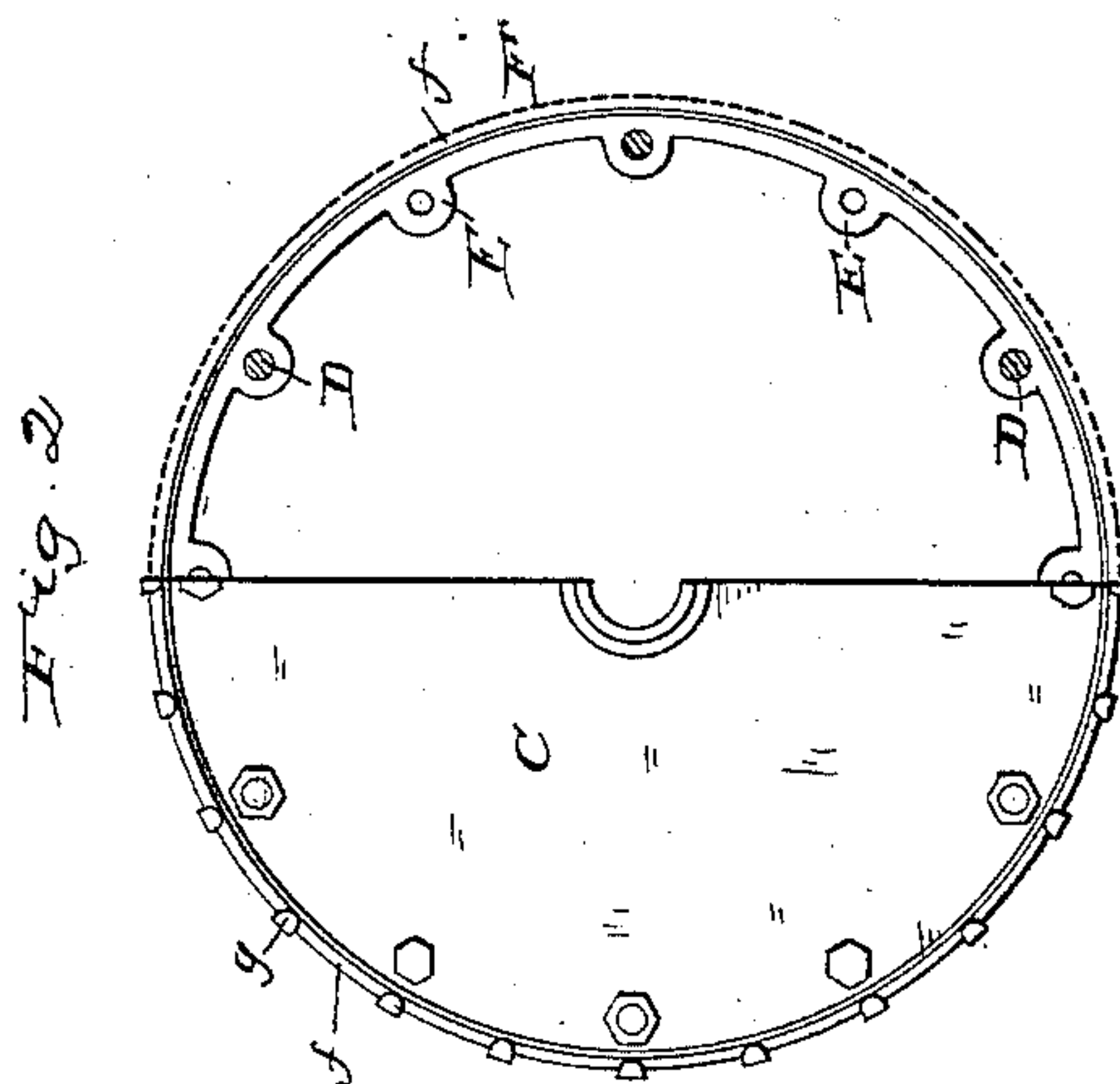
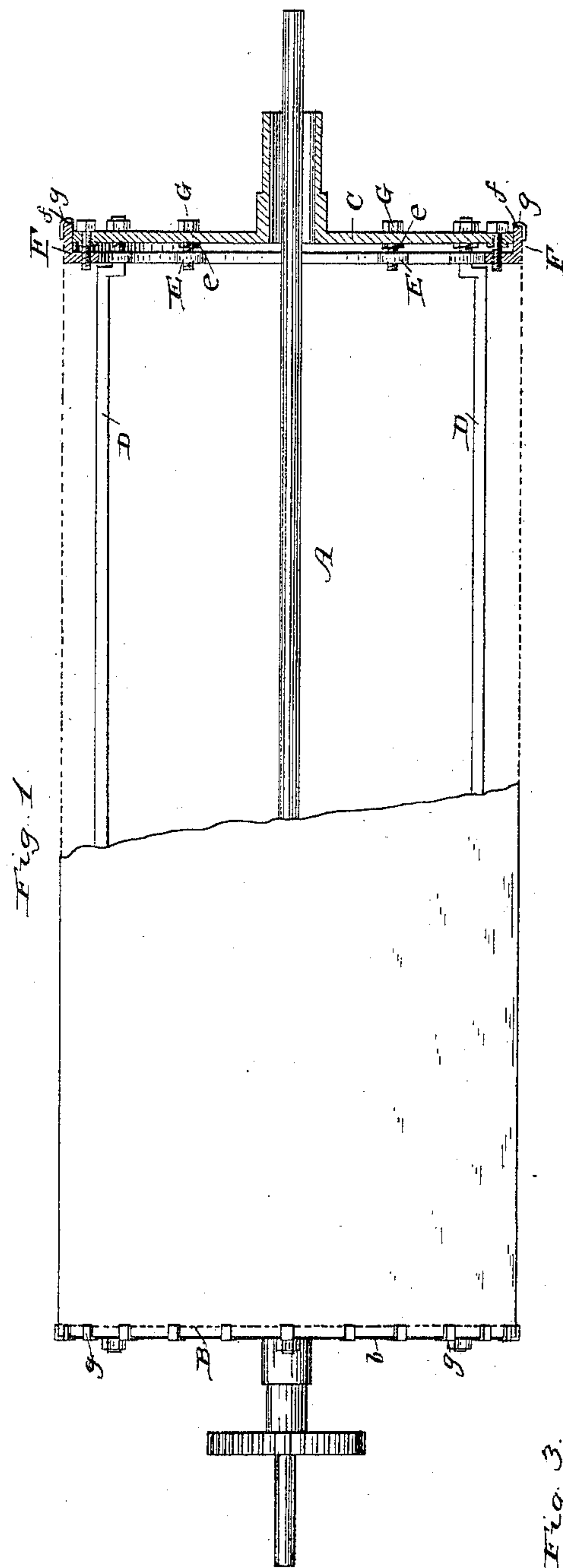
(No Model.)

G. T. SMITH.

CLASP FOR BOLTING CLOTHS.

No. 339,025.

Patented Mar. 30, 1886.



Witnesses

H. K. Low
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Inventor

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UNITED STATES PATENT OFFICE.

GEORGE T. SMITH, OF JACKSON, MICHIGAN.

CLASP FOR BOLTING-CLOTHS.

SPECIFICATION forming part of Letters Patent No. 339,025, dated March 30, 1886.

Application filed April 13, 1883. Serial No. 91,614. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. SMITH, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Clasps for Bolting-Cloths, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side elevation, partly in section, of a bolting-reel containing my invention. Fig. 2 is an end view, a portion of the reel-head being broken away. Fig. 3 is a detached view of one form of clasp. Figs. 4 and 5 show modifications of the invention.

I have shown my invention as being applied to a centrifugal reel; but it is apparent that it may be used in the construction of other types or forms of bolting-reels; hence I do not wish to be limited by the construction herein shown.

In the drawings, A is the central beater-shaft.

B C are the reel-heads, and D the longitudinal ribs which extend from one reel-head to the other, as is customary in such reels, and which need not, therefore, be specifically described.

The reel-head B is substantially flat upon its outer face, except that it is grooved near its periphery, thus leaving a rib or bead, *b*, around its outer edge.

E F is a flanged ring, of such internal diameter as to fit closely the periphery of the head C, which latter is flat upon both sides, except that, by preference, it is constructed with a series of bosses, *e*, upon its inner face, the bosses being arranged in a circle of which the beater-shaft A is the center. This head is provided with a series of holes, each extending through the head proper and through one of the bosses *e*.

G G are draw-bolts passing through the holes in the heads and the bosses and into screw-threaded holes formed for their reception in the flanges or ears E of the ring.

g g are clips or clasps, each substantially U-shaped in cross-section, one leg or lip of each clip being longer than the other and provided at its end with inwardly-turned spurs or tangs adapted to take hold of the bolting-cloth; or the clasps may be attached to the edge of

the bolting-cloth by stitches or rivets, the other leg passing over and behind either the rib *b* on head B, or a similar rib, *f*, on that edge of the ring which passes over the periphery of the head C, as is plainly shown in Fig. 1. Thus it will be seen that the bolt-cloth can be properly stretched by turning the bolts G.

By preference, the bolt-cloth is hemmed or bound at its edges where it is attached to the clips or clasps *g*, and the cloth should be sufficiently stretched when applied to the reel to insure that the shorter lips of the clasps shall be firmly held in place over the ribs *b f* by the tension of the cloth, while the flanged ring is in the position shown in Fig. 1.

Of course, when desired, a cloth-clamping ring may also be used in connection with the clasps or clips *g*; but under many circumstances that will not be found necessary.

In Fig. 4 I have shown a modification of the clasp or clip in which it is constructed with an angular shank provided with a hole, *h*, the outer face of the flanged ring being provided with pins or studs *i*, each of which enters one of the holes *h*. It will of course be understood that by means of a series of these clasps the bolting-cloth can be attached to the flanged ring and stretched in substantially the same manner as is done with the clasp shown in Figs. 1, 2, and 3.

I am aware that prior to my invention bolting-cloths have been attached to reels by means of clasps or clips somewhat resembling mine, and lacings; but my construction differs radically from those earlier ones in that I dispense entirely with the lacings, my clasps or clips being adapted to engage directly with the edge of the bolting-cloth and to be attached firmly thereto—an operation which was not contemplated in the use of the earlier devices, and, in fact, one which was not possible.

Among the advantages which are due to the use of my invention is this: it enables me to utilize the entire length of the reel for bolting purposes—that is to say, the entire length between the reel-head at the discharging end and the inner edge of the flanged tightening-ring—it being apparent that the clips may be made so short that when their hooked or angular ends are made to engage with the outer vertical face of the tightening-ring the adjacent end of the bolting-cloth shall cover the inner

edge of the ring; and it is also apparent that the ring may be made very narrow, thus utilizing a much greater proportion of the length of the reel for bolting purposes than was possible with any earlier construction of which I have knowledge.

I do not in this case claim any invention which is recited in the claims of application No. 97,179, filed June 5, 1883, as a division of this case, nor any invention claimed in my application No. 105,714, filed September 6, 1883, also as a division of this case.

I am aware that sliding rings and means for moving them have been combined with reel-heads, and that various devices have been employed for attaching or connecting the bolt-cloth to such sliding rings, whereby the tension upon the cloth may be varied as the ring is moved, such devices being shown, for instance, in the Patents No. 206,186 to M. Martin, and No. 264,824 to J. M. Finch, and hence I disclaim all such earlier constructions.

What I claim is—

1. A clasp for bolting-cloth provided at its inner end with projecting spurs adapted to be attached to the cloth, and provided at its outer end with an inwardly-turned lip adapted to engage with the vertical face of the reel-head, substantially as set forth.

2. The combination, with the reel-frame and the sliding ring, of a bolting-cloth surround-

ing the frame, and cloth-clasps carried by the bolt-cloth and adapted to detachably unite it with the sliding ring, substantially as set forth.

3. In a flour-bolt, the combination, with the reel-head C, of the bolting-cloth, the clasps, and the tightening-ring provided upon its outer vertical face with a projection adapted to receive and retain the outer ends of the clasps, substantially as set forth.

4. In a flour-bolt, the combination, with the reel-head C, of the bolting-cloth, the adjustable tightening-ring, and the clasps provided at one end with spurs adapted to receive and retain the bolting-cloth, substantially as set forth.

5. In a flour-bolt, the combination, with the bolt-cloth, of the stationary reel-head B, clasps carried by the bolt-cloth and connecting it with said head, a stationary head at the opposite end of the reel, a sliding ring movable in relation to said head, and clasps carried by the bolt-cloth and connecting it with said sliding ring, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE T. SMITH.

Witnesses:

WM. K. GIBSON,

BYRON S. ASHLEY.