

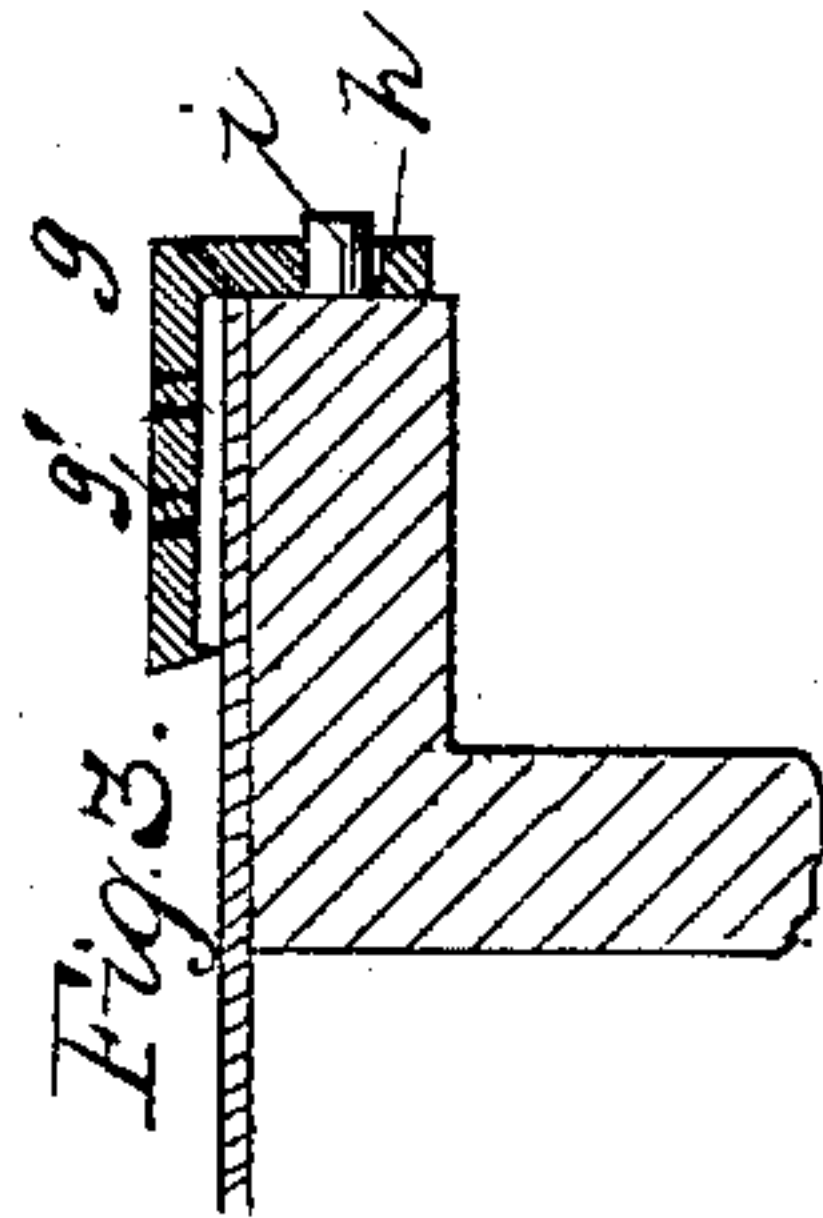
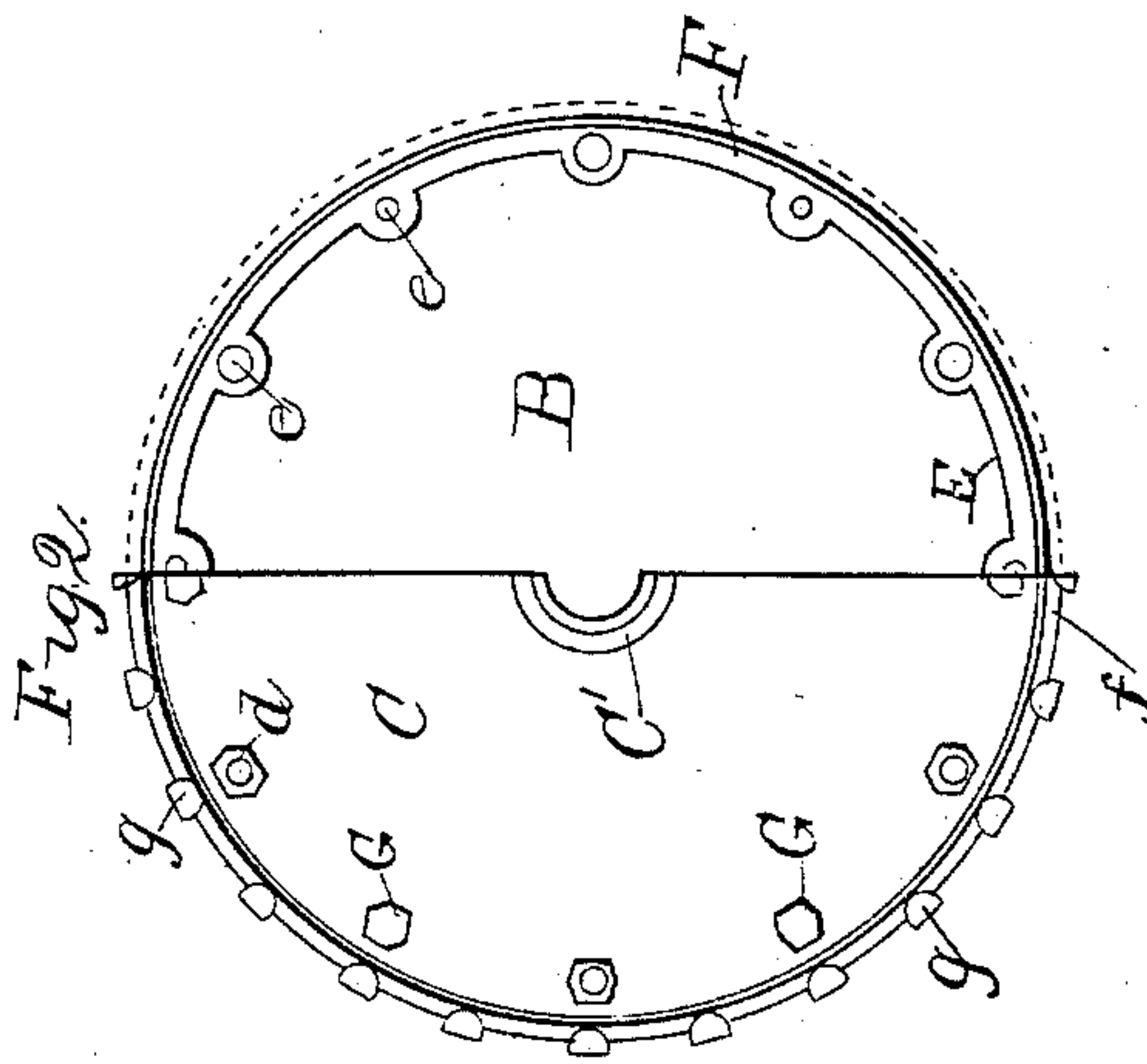
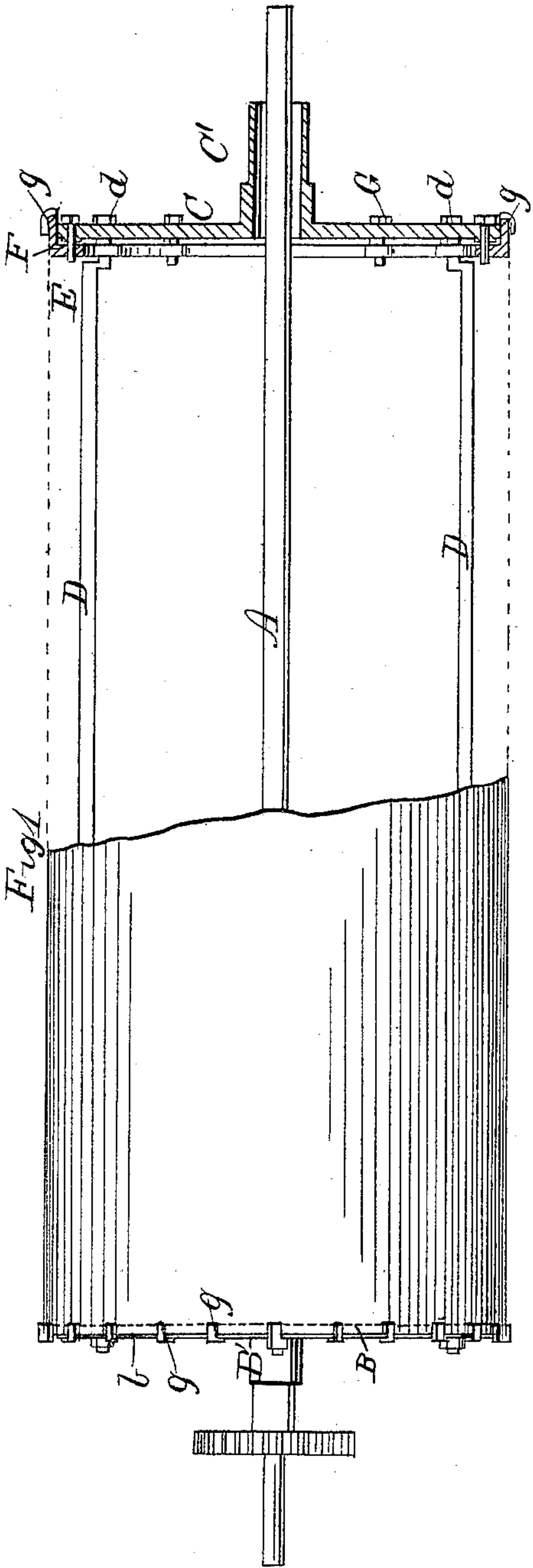
(No Model.)

G. T. SMITH.

CLASP FOR ATTACHING BOLT CLOTHS.

No. 339,027.

Patented Mar. 30, 1886.



Witnesses  
H. Burke  
L. Marshall.

Inventor  
George T. Smith  
by Doubleday & Bliss  
attys

# UNITED STATES PATENT OFFICE.

GEORGE T. SMITH, OF JACKSON, MICHIGAN.

## CLASP FOR ATTACHING BOLT-CLOTHS.

SPECIFICATION forming part of Letters Patent No. 339,027, dated March 30, 1886.

Application filed September 6, 1883. Serial No. 105,714. (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 Attaching Bolt-Cloths, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is an elevation, partly in section, of a reel having my invention applied thereto. Fig. 2 is an end view, partly broken away, of Fig. 1, looking in the direction of the arrow 1, Fig. 1. Fig. 3 is a sectional view, enlarged, of one of the cloth-clasps and of portions of the cloth and the tightening-ring.

I will proceed to describe one form of reel to which I propose to apply my invention, having selected for this purpose what is generally known as a "centrifugal reel;" but I do not wish to be limited thereby, because the invention is capable of being used satisfactorily upon many different forms of reels, shakers, or other bolters.

Referring to Fig. 1, A is the through-shaft. B is one of the reel-heads, provided, by preference, with a trunnion, B', for its support.

C is a reel-head at the opposite end of the reel, having also a trunnion, C', for its support.

D D are longitudinal bars extending from head to head, the ends of the bars being screw-threaded and provided with nuts *d*, by means of which the heads are drawn firmly against the shoulders of the bars, as is common in this class of reels.

E F is a circular tightener, which in this instance consists of a flanged ring, the vertical part E being provided with a series of bolt-holes, *e e*.

G G are bolts passing through bolt-holes *e e* and corresponding holes in the reel-head C. The horizontal part F of the tightener fits closely to the periphery of the head C.

As shown in Fig. 3, the cloth-clasp *g* consists of a thin plate of metal provided at one end with a series of inwardly-projecting spurs adapted to take hold of and grip firmly the bolting-cloth or a binding or margin of webbing, ticking, leather, or other material to be sewed to the edge of the cloth, the opposite end or side of the metal plate being bent at a right angle, the inwardly-projecting flange or

arm thus formed being provided with an opening, *h*, or a series of such openings, adapted to receive spurs or pins *i*, projecting from the outer edge of the reel-head or from the part F of the tightener; or the flat plate of the clasp might be provided with a series of perforations, *g'*, whereby the clasp could be stitched or riveted to the bolt-cloth or to its attached binding or fabric.

In using this invention I propose to attach a series of these clasps to each end of the bolt-cloth and then hook them (the clasps) over the beads *b f*, to which they (the clasps) will be tightly held by the tension of the cloth; and when it is desired to further stretch the cloth, this can be done by means of the tension-bolts G G, as will be readily understood without further explanation.

I am aware that Letters Patent No. 210,865 show a series of metal clasps, each attached to the bolt-cloth and also to a chain, which latter traverses sprocket-wheel spurs, the construction and combination of parts being such that the chain constitutes an indispensable member of the machine.

I do not claim any invention shown in said Patent No. 210,865; but my construction is essentially different from that described therein, in that, first, my clasps are so constructed that they are adapted to be readily attached to and detached from a support projecting from the reel or from a circular tightener; secondly, it consists of three members only—that is, a bolt-frame, a bolt-cloth, and a series of clasps—instead of four members, as are necessarily employed in said Patent No. 210,865; and, thirdly, by reason of connecting my clasps at one end of the cloth directly to the bolt-frame, I am enabled to stretch the cloth lengthwise of the bolt to any desired extent, which, manifestly, cannot be done with the devices shown in that patent, from the fact that if that bolt-cloth were under tension in the same direction as mine the edges of the bolt-cloth would be drawn toward each other, so that one or both of the chains would run off from the sprocket-wheels.

I do not in this application claim, broadly, a cloth-clasp adapted to be attached at one end to the bolting-cloth, and having its outer end engaging with the reel-head, as I claim such device, broadly, as well as other specific



forms thereof, in other applications which I filed March 22, 1883, and June 5, 1883, and numbered, respectively, 91,614 and 97,179; nor do I herein claim, broadly, the combination, with the reel-frame and the tightening-ring, of the bolt-cloth and cloth-clasps, as such combination I have claimed in my said application No. 91,614.

What I claim is—

10 1. The combination of the following elements, namely: a reel-frame having its head provided with spurs, a bolting-cloth, and a series of clasps, each connected at one end to the cloth, and provided at its opposite end with a  
15 perforation adapted to engage with a spur carried by the reel-head, substantially as set forth.

2. The combination of the following elements, namely: a bolt-frame, a bolting-cloth, a circular tightener provided with a series of spurs, *i*, a series of cloth-clasps, each connected at one end to the cloth and provided at its opposite end with a perforation, *h*, adapted to engage with one of the spurs *i*, and means for moving the circular tightener to vary the tension of the cloth, substantially as set forth. 25

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

GEORGE T. SMITH.

Witnesses:

A. L. FAULKS,  
GEO. S. BENNETT.