

(No Model.)

A. HEINE.
BOLTING REEL.

No. 323,143.

Patented July 28, 1885.

Fig. 1.

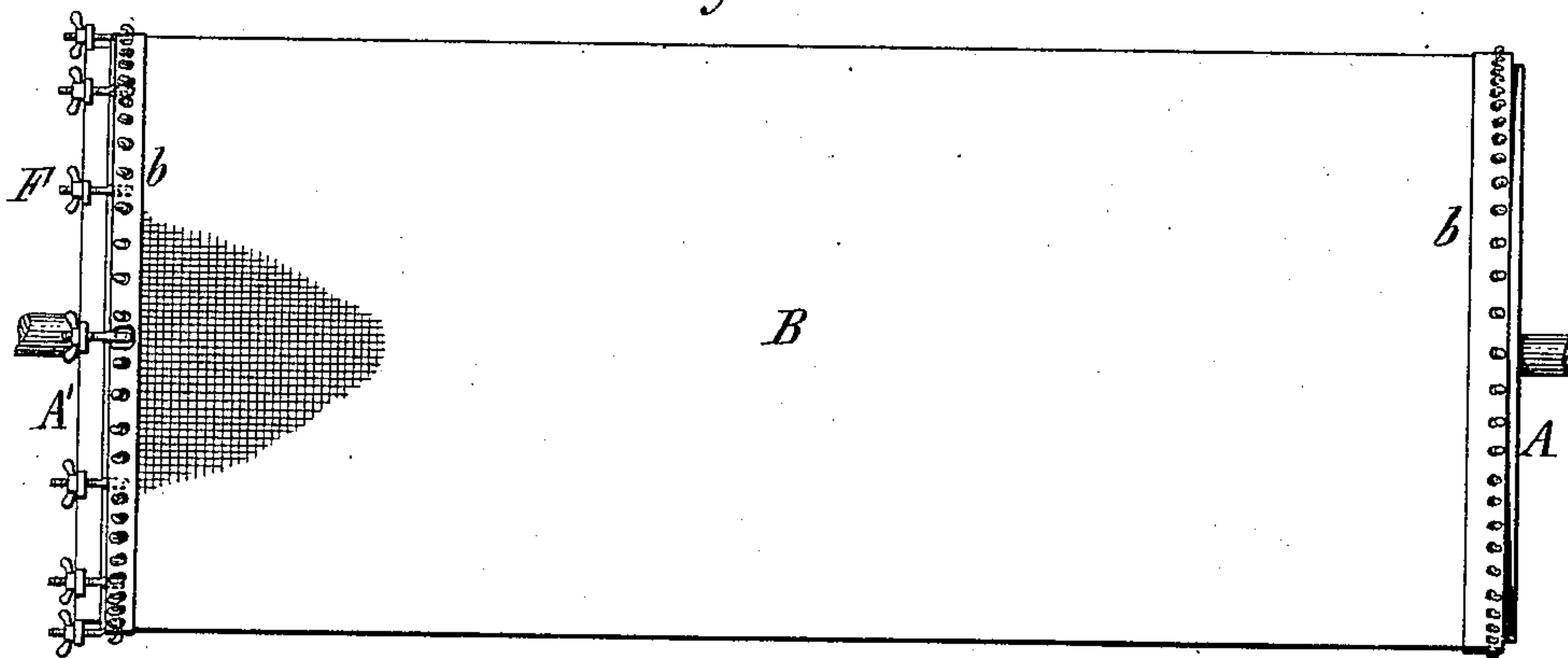


Fig. 2.

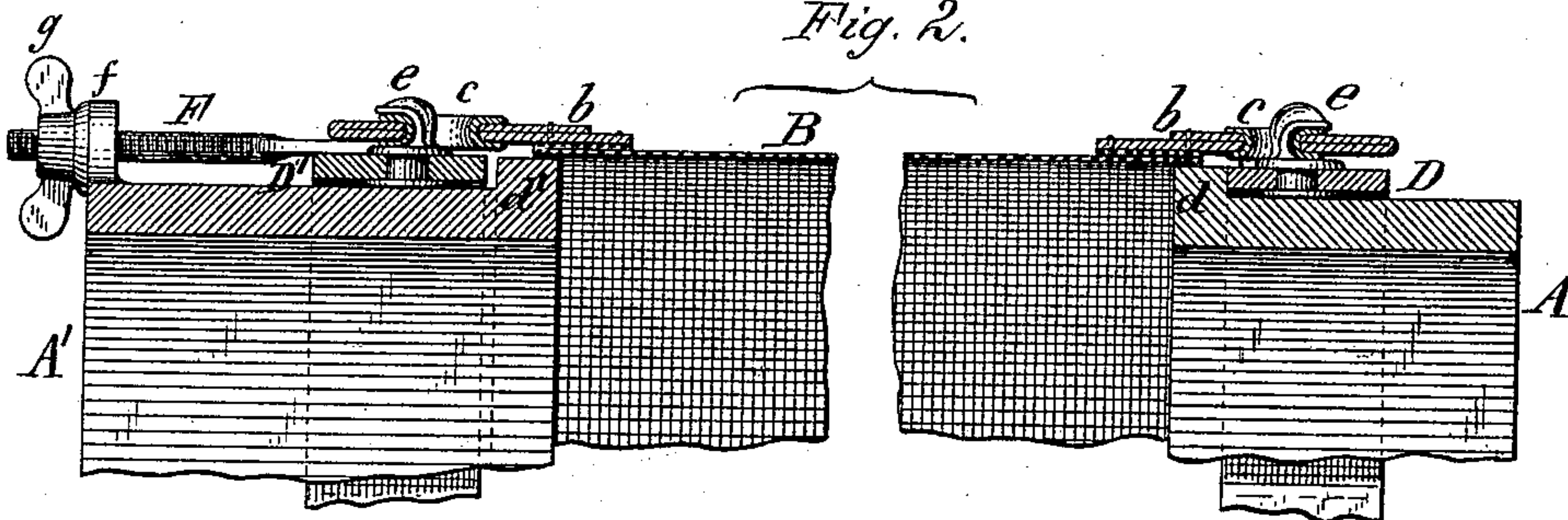
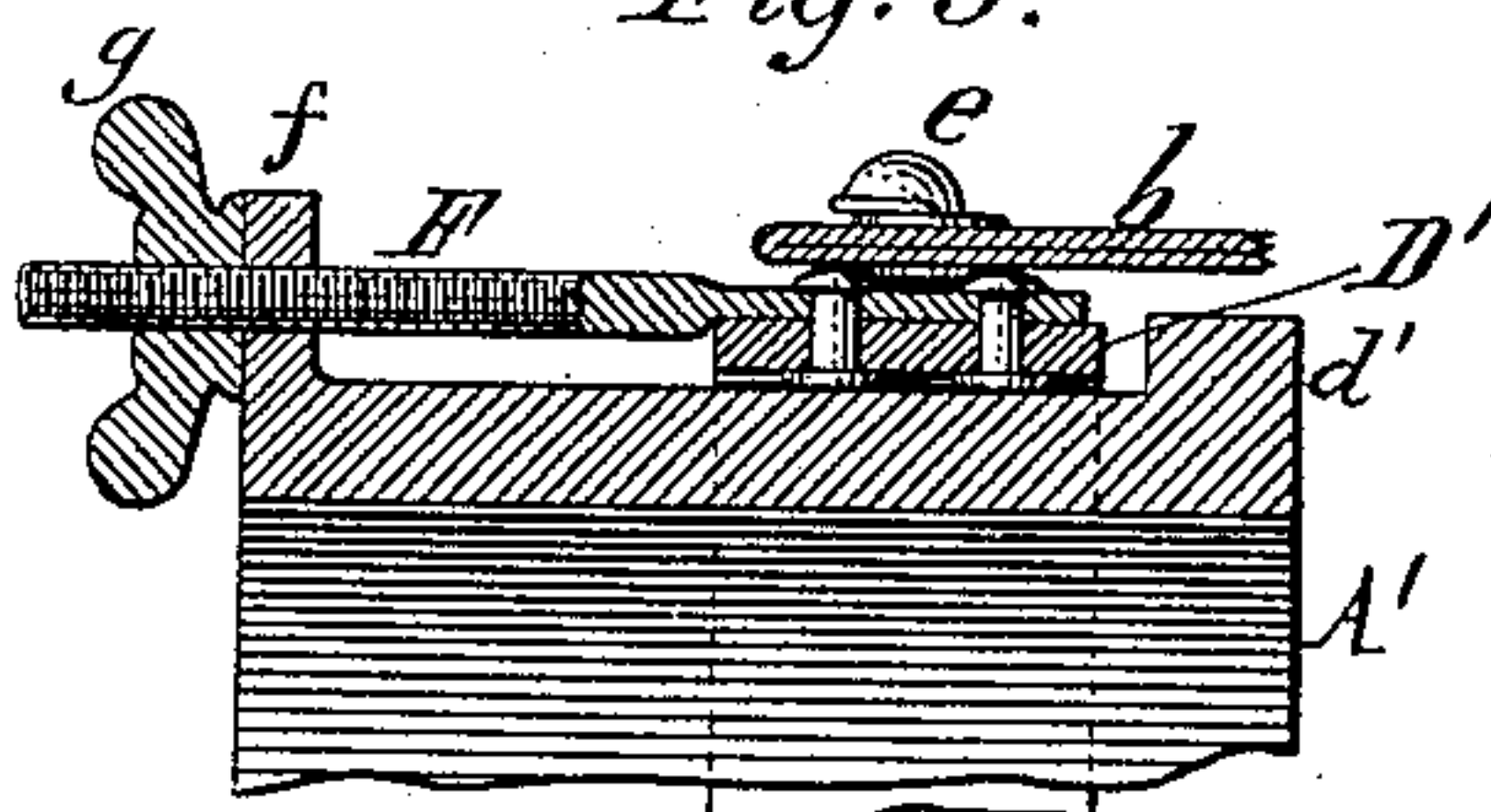


Fig. 3.



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UNITED STATES PATENT OFFICE.

AUGUST HEINE, OF SILVER CREEK, NEW YORK.

BOLTING-REEL.

SPECIFICATION forming part of Letters Patent No. 323,143, dated July 28, 1885.

Application filed March 10, 1885. (No model.)

To all whom it may concern:

Be it known that I, AUGUST HEINE, of Silver Creek, in the county of Chautauqua and State of New York, have invented new and useful Improvements in Bolting-Reels, of which the following is a specification.

This invention relates to an improvement in the devices whereby the bolting-cloth is secured to the reel-frame, and has for its object to provide a simple and efficient means for properly stretching the cloth on the reel-frame.

In the accompanying drawings, Figure 1 is a side elevation of a bolting-reel provided with my improvement. Fig. 2 is a fragmentary longitudinal section of the same on an enlarged scale. Fig. 3 is a longitudinal section of the adjusting-screw and connecting parts on an enlarged scale.

Like letters of reference refer to like parts in the several figures.

A A' represent the cylindrical end heads of the reel-frame, rigidly secured in their proper relative positions by longitudinal stays or the longitudinal shaft of the reel, or other suitable and well-known means.

B represents the cylinder of bolting-cloth, stretched around and between the end heads, A A', and provided at both ends with strips or bands *b b*, of ticking or other strong cloth, which is firmly secured to the bolting-cloth by sewing or otherwise.

c represents eyelets secured in the strips of cloth *b b* at suitable predetermined distances apart.

D D' represent hoops or rings, which surround the cylindrical end heads, A A', the latter being provided at their inner ends with annular shoulders *d d'*, which limit the inward movement of the rings D D' on the heads A A'.

e represents hooks secured at suitable distances apart to the outer sides of the rings D D', and adapted to receive the eyelets *c*, fastened in the strips *b b* of the bolting-cloth.

F represents longitudinal adjusting-screws secured with their inner ends to the ring D', and passing with their outer threaded ends through lugs *f*, formed on the head A', to which they are secured by thumb-nuts *g*, so that the longitudinal tension of the bolting-cloth can be regulated by adjusting the screws F.

For the purpose of properly applying the eyelets *c* to the strips *b*, a templet is prepared

on which the location of the hooks *e* on the rings D D' is marked. The strips *b*, with the bolting-cloth attached thereto, are then placed on the templet and stretched to the tension which the bolting-cloth is to receive circumferentially when applied to the reel-frame. In this stretched condition of the strips *b* the places which the hooks *e* occupy are marked on the strips, and the eyelets *c* are then secured in the strips at the points so marked. One end of the bolting-cloth is now applied to the ring D by engaging the eyelets *c* upon the hooks *e*, and in doing so the cloth is again stretched circumferentially of the reel to the same tension which was applied to it in marking the places for the eyelets on the strips *b*. By using proper care in marking the places for the eyelets the cloth is stretched uniformly between every two hooks, which distinguishes this mode of fastening from lacing, in which latter mode the tension applied is regulated by the judgment of the person applying the cloth, and different in different parts of the circumference of the reel, according to the varying strains applied to different portions of the lacing-cord. The other end of the cloth is attached in like manner to the ring D' and similarly stretched. The longitudinal joint of the cloth is secured by lacing, sewing, or other suitable means. In this manner the proper circumferential tension is applied to the cloth at both ends, thereby avoiding overstraining of the cloth as well as looseness or puckering. The proper longitudinal tension is now given to the cloth by adjusting the screws F in a well-known manner. The position of the hooks on the rings D D' being known, the cloth is prepared ready for application to the reel-frame, and the predetermined proper circumferential tension is given to the cloth in fastening it to the reel-frame, thereby greatly facilitating the application of the cloth and preventing improper stretching of the same.

I claim as my invention—

1. The combination, with the reel-frame, provided with two circumferential series of hooks, of a bolting-cloth provided with strong end strips having eyelets or openings which are fastened on and securely held by said hooks, whereby the cloth is secured to the reel-frame and a uniform predetermined ten-

sion is applied to the cloth circumferentially, substantially as set forth.

2. The combination, with the end heads, A, A', of the reel-frame, of the rings D D', provided with hooks *e*, and a bolting-cloth, B, provided with strong end strips *b* having eyelets *e*, which are engaged with said hooks, substantially as set forth.

3. The combination, with the end heads, A, A', of the reel-frame, of the rings D D', provided with hooks *e*, the bolting-cloth B, provided with strong end strips, *b*, having eyelets

e, which are engaged with said hooks, and whereby a uniform predetermined tension is applied to the cloth circumferentially, and adjusting-screws F, whereby the cloth is stretched longitudinally, substantially as set forth. 15

Witness my hand this 6th day of March, 1885.

AUG. HEINE.

Witnesses:

EDWARD WILHELM,
C. F. GEYER.