

Witnesses. The Inseke

Inventor.

Anited States Patent Effice.

A. C. CORPE, OF STAFFURD, CONNECTICUT.

Letters Patent No. 71,990, dated December 10, 1867.

IMPROVEMENT IN MACHINE FOR STRETCHING CLOTH.

The Schedule referred to in these Netters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, A. C. Corpe, of Stafford, in the county of Tolland, and State of Connecticut, have invented a new and improved Machine for Stretching Cloth; and that the following specification, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact description of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

This invention relates to a new and improved machine for stretching cloth, with a view of rendering the same smooth, and unfolding such portion of the selvedges which may have been rolled over in the manipulations

to which it was subjected after being taken from the loom.

The invention consists of two horizontal gear-clamps and rollers, all placed in a suitable frame, and arranged to operate as hereinafter set forth. In the accompanying sheet of drawings-

Figure 1 is a plan or top view of my invention.

Figure 2 a vertical section of the same, taken in the line x x, fig. 1.

Similar letters of reference indicate like parts.

A represents a frame, which may be constructed in any proper manner to support the working parts, and B B represent two horizontal gear-clamps, each of which is composed of two gear-wheels, a a', placed, one directly over the other. The lower wheels a' are perfectly horizontal, their axes b being vertical, and fitted loosely in guides or bearings c attached to a cross-bar, d, of the frame A. The upper gear-wheels a of the clamps are slightly inclined from a horizontal plane, their outermost parts being rather nearer the faces or upper surfaces of the lower wheels a' than their inner parts, as shown in fig. 2. This position of the upper wheels a is obtained by having their axes e fitted in bearings f, which are placed in upright sockets g on a cross-bar, h of the frame A, the bearings having a certain degree of adjustability in a lateral direction in the sockets, and held in place by set-screws i, which pass through the sockets, as will be fully understood by referring to fig. 2. By this arrangement it will be seen that the cloth, shown in red, which is drawn between the wheels a a' of the clamps, will be clutched or griped between the outer parts of said wheels. The cloth passes from between these wheels over a roller, C, in the frame A, and is wound upon a roller, D, in the upper part of a frame, E, the lower end of which is fitted loosely upon a shaft, j, at the lower part of the frame A. This roller D is rotated through the medium of gearing k from a shaft, i, at one side of the frame E, motion being communicated to it from a driving-pulley, m, through the medium of gearing n and a clutch, o, the latter being operated by a lever, p, so as to connect the gearing n with the driving-pulley m, or disconnect it therefrom, as may be desired. The upper and lower wheels a a' of the gear-clamps B B gear into pinions q q on barrels F, on the upper ends of which there are also bevel-pinions r, which gear into bevel-teeth a at the inner sides of wheels t, which are toothed at their peripheries. These wheels t work on fixed axes, and gear into wheels u u at the ends of the shaft of roller C. The barrels F work loosely on upright fixed axes v on the frame A, and on the upper ends of the axes e of the upper wheels a of the gear-clamps there are secured circular heads w, against the under sides of which eccentrics a^{\times} bear, which eccentrics are to raise the upper wheels a. These eccentrics have levers b^{\times} attached for the convenience of operating them.

From the above description it will be seen that, when the roller D is turned, the cloth will be drawn between the gear-clamps B B, the latter turning simultaneously, and with the same motion, as they are both connected with the roller C, and these gear-clamps will stretch the cloth laterally and unroll the selvedges wherever turned over. In adjusting the cloth between the upper and lower wheels of the gear-clamps, at the commencement of the operation, the upper wheels a are raised by adjusting the eccentrics a^{\times} , and, when the cloth is secured to

roller D, the upper wheels are lowered, so as to bear upon the cloth.

Having thus described my invention, I claim as new, and desire to secure by Letters. Patent-

1. The two gear-clamps B B, composed each of two wheels, a a', one placed above the other, and the upper wheels arranged so as to be capable of adjustment both vertically and laterally, substantially as shown and described.

2. I claim the arrangement of gearing as shown, in connection with the gear-clamps B B and roller C,

whereby an equal movement of the clamps is insured, substantially as shown and described. 3. The supplemental frame E, provided with the roller D, upon which the cloth is wound, in connection with the gearing k u, clutch o, driving-pulley m, and shaft l, all arranged substantially as shown and described.

The above specification of my invention signed by me, this 23d day of April, 1867.

A. C. CORPE.

Witnesses:

WM. F. McNAMARA, J. A. SERVICE.