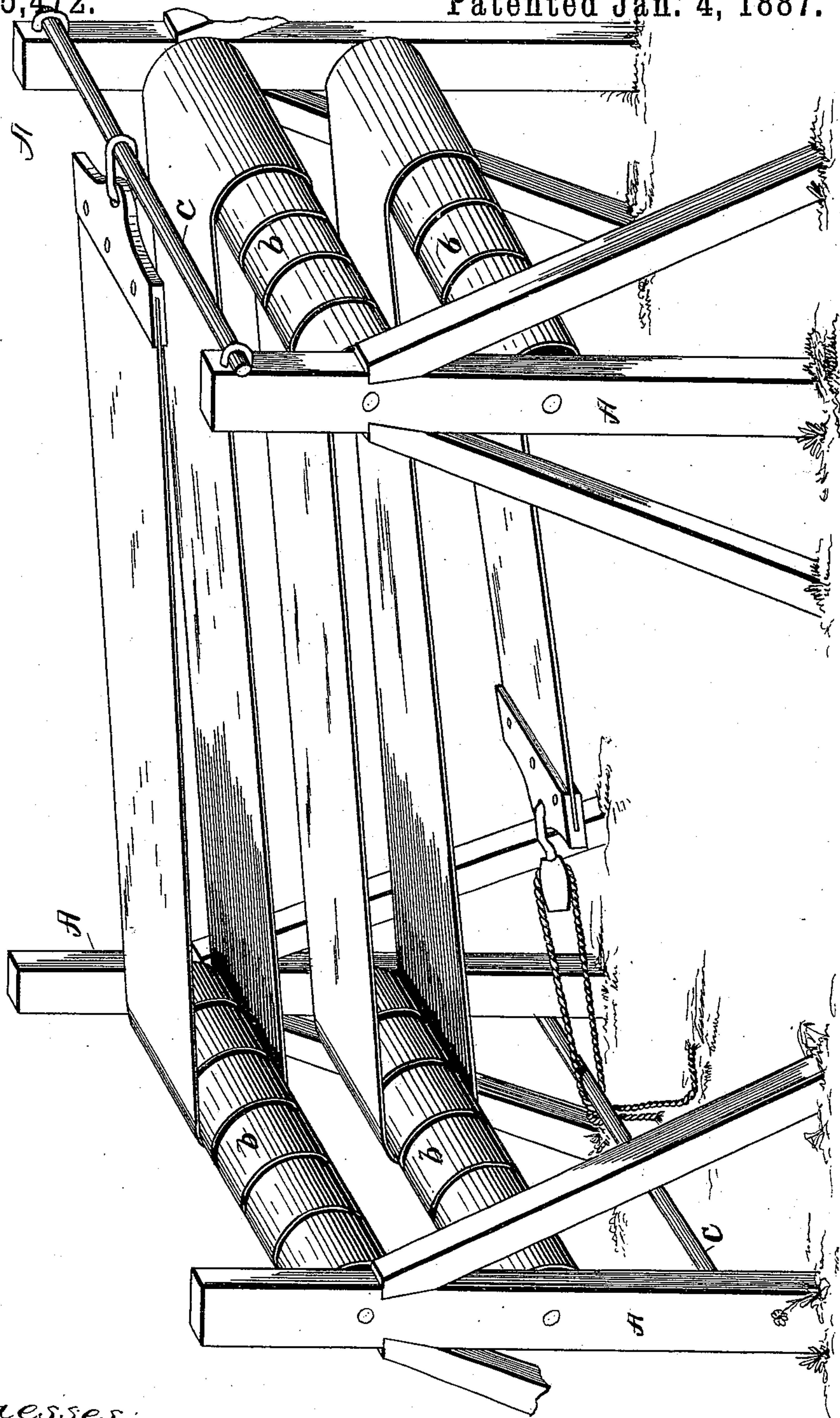


(No Model.)

B. M. PLUMMER.
BELT STRETCHING MACHINE.

No. 355,472.

Patented Jan. 4, 1887.



Witnesses:
Wm. A. Rosenbaum
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UNITED STATES PATENT OFFICE.

BENJAMIN M. PLUMMER, OF PHILADELPHIA, PENNSYLVANIA.

BELT-STRETCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 355,472, dated January 4, 1887.

Application filed March 7, 1885. Serial No. 158,035. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN M. PLUMMER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Belt-Stretching Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

In the manufacture of belts for machinery from duck or canvas it is necessary to subject the same to great strain for a considerable length of time to take out all the "stretch" there is in the material, and for this purpose various expedients have been resorted to with more or less satisfactory effects. These belts being now made of long or continuous lengths and it being desirable to stretch them uniformly through their entire length at the same time, it has been a problem how to accomplish this within a reasonable space and with the single application of power.

My invention has for its object the provision of means for avoiding previous difficulties and for providing a simple and convenient apparatus for uniformly stretching throughout their entire length belts of any length or width; and to this end it consists in the combination, in a frame or structure, of a series of parallel shafts and a plurality of loose pulleys upon each of the shafts, and in other specific combinations, which will be hereinafter particularly described, and specifically pointed out in the claims.

In the drawing, the figure is a perspective view of my apparatus.

A A are standards or posts well braced and supported in the ground, in a building, or other suitable frame-work. These posts are placed in pairs some distance apart and form supports for a plurality of parallel shafts. On each of these shafts are hung a plurality of pulleys, b, having equal diameters, and held far enough apart to prevent their edges from grinding their hubs.

Any suitable means, as cross-bar c, for securing the ends of the belts may be used.

It will be observed that any number of

shafts and any number of pulleys on each of such shafts may be used, and that by such arrangement a very long belt, or a plurality of belts, or a very wide belt may be stretched with equal facility.

The manner of stretching the belt by my apparatus is as follows: Secure one end in any convenient manner and pass or wind the belt over the pulleys in the manner shown, then exert a strain on the belt by windlass, block and tackle, or other means of multiplying power, and then secure the same and let it stand.

Additional strains should be applied from time to time for a number of days to entirely accomplish the desired results.

To apply additional strain to the belt, weights may be placed across the belt between the rollers.

By the multiplication of loose pulleys on the shafts I am enabled on the same frame or apparatus to stretch an extremely long belt or a number of narrow belts at the same time, while being also able to stretch a very wide belt with the same facility as would be the case if the shafts were provided with a single pulley extending from end to end.

The pulley-bearings are oiled through a passage running from the face of the pulleys through the hub to the shaft. The passage is provided with a screw-plug to prevent the oil from leaking out onto the belts.

Having now described my invention, I claim—

1. The combination, in a frame or structure, of a plurality of parallel shafts and a plurality of loose pulleys upon each of said shafts, substantially as and for the purpose set forth.

2. The combination, with a series of parallel shafts, each provided with a plurality of loose pulleys of equal diameter, of means for exerting a tension or strain on a belt when the belt is applied to or mounted on the shafts and pulleys, substantially as described.

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

BENJAMIN M. PLUMMER.

Witnesses:

J. B. JARDELLA,

A. G. MURPHEY.