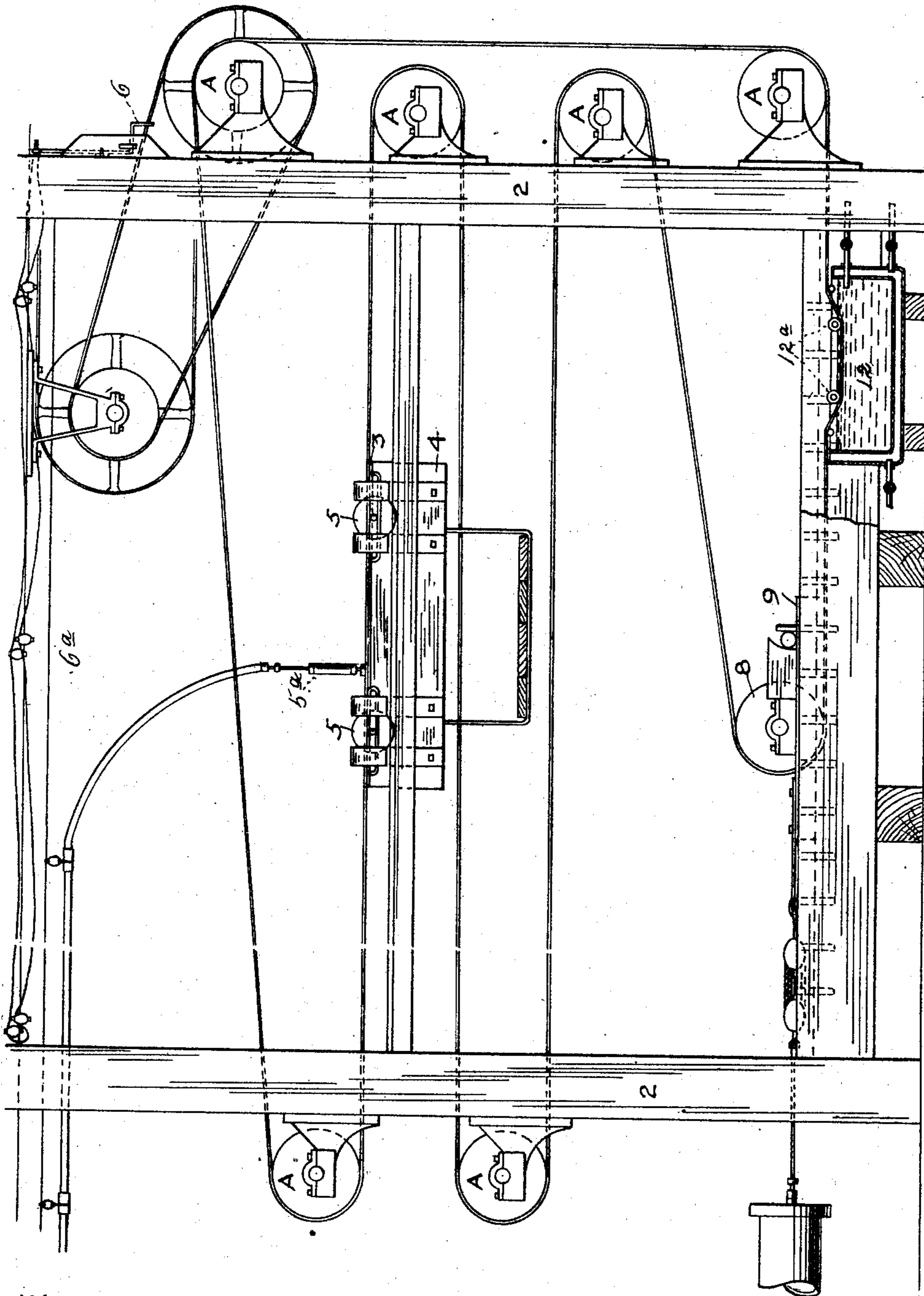


M. H. & C. G. COOK.  
 PROCESS FOR STRETCHING AND STRAIGHTENING LEATHER BELTING.  
 APPLICATION FILED OCT. 4, 1907.

908,957.

Patented Jan. 5, 1909.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

MILTON H. COOK AND CLIFFORD G. COOK, OF SAN FRANCISCO, CALIFORNIA.

## PROCESS FOR STRETCHING AND STRAIGHTENING LEATHER BELTING.

No. 908,957.

Specification of Letters Patent.

Patented Jan. 5, 1909.

Application filed October 4, 1907. Serial No. 395,968.

*To all whom it may concern:*

Be it known that we, MILTON H. COOK and CLIFFORD G. COOK, both citizens of the United States, residing in the city and in the county of San Francisco and State of California, have invented new and useful Improvements in Processes for Stretching and Straightening Leather Belting, of which the following is a specification.

Our invention relates to a process for stretching and straightening leather, which is particularly adapted to leather made up in the form of belting.

The process includes the loosening and equalizing of the tension of the fibers of the skin, and in stretching the belt while traveling, so as to equalize the tension upon all parts thereof.

Belting is made up of numerous lengths of leather which are necessarily taken from various parts of the skins. The fibers of such leather are unequal in firmness. For this reason when belts are made up of leather having various degrees of firmness they will not be straight, and unless they can be made perfectly straight they will not run in a satisfactory manner.

It is the object of our invention to straighten such belts, and to give them an equal tension in all portions. This we effect by a process of hammering and stretching.

Various mechanisms may be employed to carry out our process. In the present illustration we have shown a form of apparatus which may be satisfactorily employed.

The belt to be acted upon is passed around drums A at opposite ends of a frame-work 2, this frame-work being of sufficient length and the number of the drums such that belts of any length may be passed backward and forward between the drums, the ends of the belt being laced or connected, so that the belt is endless.

3 is an anvil or surface mounted upon a platform 4 which is suspended from the horizontal beams of the frame by means of rollers or wheels 5, which are adapted to travel upon the frame so that the anvil or plate lies in close proximity with the lower portion of the belt.

The platform may have ropes or connections 6<sup>a</sup> and a belt shifting lever 6, so that an operator standing upon the platform may control and stop travel of the belt, and by the use of a hammer 5<sup>a</sup>, either electric, pneumatic, or other well known form, the

leather over the anvil, may be hammered all over its surface. The result of this hammering is to loosen the fibers of that portion of the belt which are the firmest, and to equalize the firmness of the belt from one side to the other; and this results in straightening any irregularities in the edges of the belt, and will cause the belt to run more nearly straight. In connection with this, the belt is subjected to a tension which may be effected as follows: 8 is a drum over which one portion of the belt passes, and this drum is mounted upon a carriage 9 which is guided and slidable upon some portion of the frame, and by means of blocks and tackle or weighted connections from this frame, the belt is continuously stretched. Power may be applied to drive the various drums so that the belt may be moved either continuously or intermittently, and during the movement the tension on the drum 8 is sufficiently great to stretch the belt to any desired extent. The belt under this tension may then be moved over the anvil or hammering plate and hammered in sections until it has a substantially even tension and straight edges, when it will be in condition for use. The fibers of the belt may afterwards be set or fixed by passing the belt through a tank containing a body of heated liquid. Such a tank is shown at 12 with guide and depressing rollers 12<sup>a</sup>.

It will be manifest that various forms of apparatus may be employed in carrying out our process, without altering the character thereof.

Having thus described our invention, what we claim and desire to secure by Letters Patent is—

1. The process of preparing leather belting for use, said process consisting in imparting a travel to the belt while under tension whereby the belt is stretched in the direction of its length, passing the belt over a fixed surface and coördinately with the travel of the belt over said surface, mechanically hammering the belt to equalize the firmness and tension of the fibers.

2. The process of straightening and preparing leather belting for use, said process consisting in imparting a travel to the belt and stretching the belt in the direction of its length, causing the belt to pass over a tubular surface, and then hammering the moving belt while passing over said surface, and while subjected to tension.

3. The process of preparing leather belts  
for use, said process consisting in imparting  
continuous travel to an endless belt, subject-  
ing the belt to tension while under travel,  
5 and causing the belt in its travel to pass in  
contact with a fluid whereby the set of the  
belt is retained.

In testimony whereof we have hereunto

set our hands in presence of two subscribing  
witnesses.

MILTON H. COOK.  
CLIFFORD G. COOK.

Witnesses:

S. H. NOURSE,  
F. E. MAYNARD.