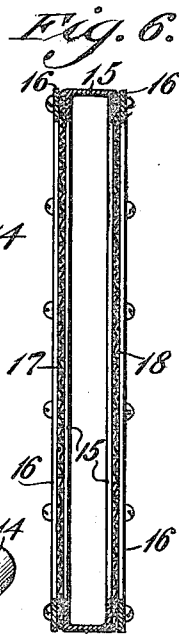
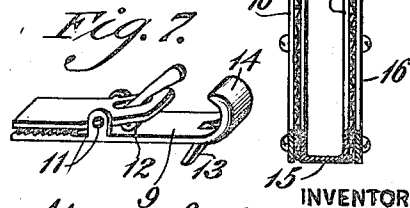
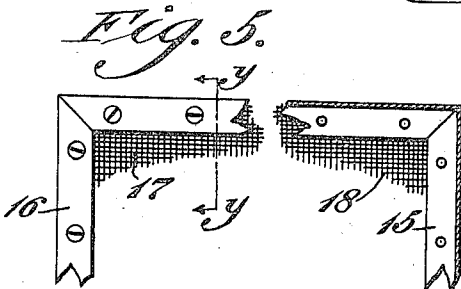
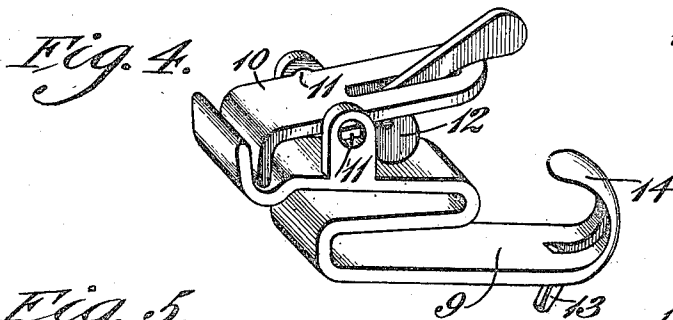
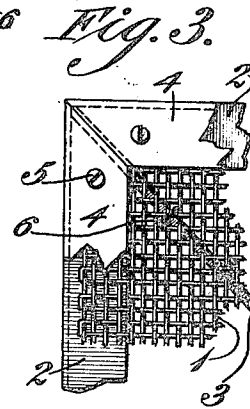
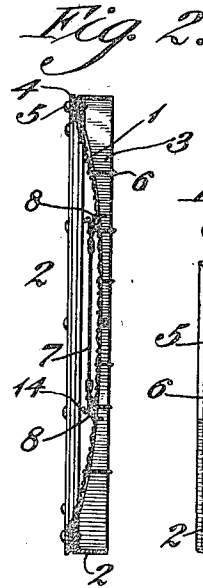
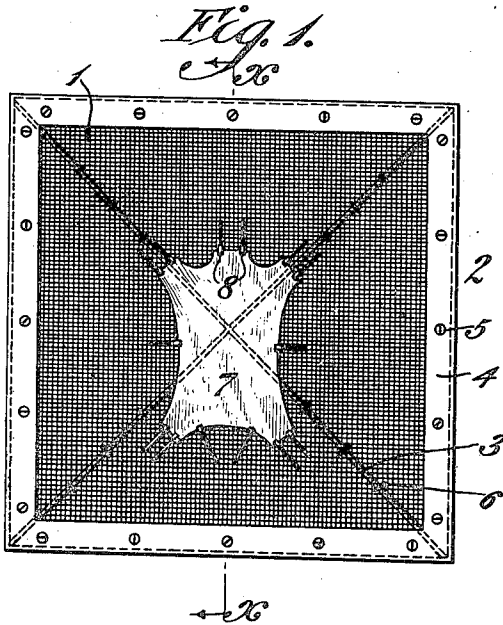


M. STEINHARTER.
 APPARATUS FOR STRETCHING AND DRYING LEATHER.
 APPLICATION FILED FEB. 18, 1915.

1,310,148.

Patented July 15, 1919.



WITNESSES

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MAX STEINHARTER, OF PHILADELPHIA, PENNSYLVANIA.

APPARATUS FOR STRETCHING AND DRYING LEATHER.

1,310,148.

Specification of Letters Patent.

Patented July 15, 1919.

Application filed February 18, 1915. Serial No. 9,171.

To all whom it may concern:

Be it known that I, MAX STEINHARTER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Apparatus for Stretching and Drying Leather, of which the following is a specification.

My invention relates to the general class of apparatus, machinery or devices for stretching and drying hides, skins or leather, and its object, primarily, is to provide a much cheaper and more expeditious method of carrying out these operations than heretofore, and I am furthermore enabled to avoid the necessity of using tacks to secure the leather to the frame with the resultant liability of their remaining in the leather and injuring the embossing rolls or other machinery to which the leather, in its further and ultimate treatment, may be subjected.

Broadly stated, my invention comprehends the employment of a wire netting or its equivalent firmly secured within a frame or other holder, and adapted to be employed as a medium to receive the lugs, fingers or other hooking devices of clamps to which they are attached or of which they form a part, and which are adapted to be fastened to the edges of a skin, or other article, which it is desired to stretch taut for treatment.

The netting which I employ is preferably composed of strands of woven wire, the meshes of which may be of any preferred dimensions and which serve as or compose a perforated or foraminated area or surface into any one of the perforations or meshes of which the hooking device of a clamp may be manually inserted and caught.

When the edges of the skin to be stretched have been provided with hooking clamps or clutches, the clamps by their hooks are easily and manually secured to the meshes of the netting, with the result that after the securing of any particular clamp or clamps to a selected spot or place upon or mesh through the surface of the netting, the remaining clamps as attached to the skin can be manually drawn in any desired direction to such extent of movement in any given direction as may be convenient and desir-

able and be then hooked or fastened to the desired mesh.

Obviously, no matter in what direction radially, so to speak, and outwardly from the edges of the skin the clamps may be pulled, there will always when the limit of the stretching has been attained be found a mesh into which the hook of the clamp may be inserted and retained.

The broad ideas which underly my invention are, first, that the article to be treated can be stretched on the frame much more expeditiously than is possible with any appliance heretofore in use for the purpose. Second, there is an entire avoidance of tack holes or any other marks, which heretofore have had to be trimmed away, such trimming sacrificing considerable measurement, which can now be saved. Third, there is, in addition, a great saving in labor in connection with my invention, since I dispense with the step of tacking the leather entirely, the expense of tacking being a very considerable item in this connection.

With these objects in view, and without any limitation as to the nature or character of the skin or article to be stretched or the nature or character of the treatment to which the skin or article is to be subjected, my invention may be conveniently embodied in the devices which are represented in the accompanying drawings and hereinafter described, it being understood, however, that these devices constitute merely typical embodiments which I have found it in practice to be convenient to adopt, and that I do not, therefore, confine or limit myself to the details of their specific construction.

In the drawings, Figure 1 is a top plan view of a stretching apparatus embodying my invention.

Fig. 2 is a transverse side, sectional, elevation of the same, on the dotted line $x-x$ of Fig. 1.

Fig. 3 is a fragmentary plan view of a corner of the frame and netting shown in Figs. 1 and 2.

Fig. 4 is a perspective view of a form of clamp which I find it convenient to employ not only to take hold of the edge of the skin but also take hold of or catch into any desired mesh of the netting.

This clamp which also is my invention

forms the subject-matter of an application for patent filed by me on February 18th, 1915, Serial No. 9,170, for clamp for leather stretching machines and is not herein
5 claimed.

Fig. 5 is a fragmentary plan of a frame adapted to hold a pair of nettings.

Fig. 6 is a transverse, fragmentary section of the frame represented in Fig. 5 on the
10 dotted line $y-y$ of said figure.

Fig. 7 is a perspective view of a modified form of clamp.

Similar numerals of reference indicate corresponding parts.

15 Referring now to Figs. 1, 2 and 3,—1 designates the netting, composed of strands of woven wire the meshes of which are of such size as to receive the lugs, hooks or depending projections of the clamps. 2 is
20 a frame preferably composed of angle-irons and preferably strengthened by curved braces 3 indicated as diagonally disposed. The netting lies upon the upper surface of the angle-bar members of the frame and is
25 secured by fastening plates 4 conveniently held in place by bolts 5.

In order, in the construction under discussion, to retain the netting in dished or saucer-like shape, clips 6 are used to connect
30 the netting with the braces 3.

7 designates the leather, skin or other article to be stretched, and in Figs. 1 and 2 8 indicates the clamps which are clamped on the edges of the skins and hooked into se-
35 lected meshes of the netting.

As already stated, any preferred form of clamp or fastening adapted to be clamped to the edge of the skin in such a manner as not to perforate or injure it and which is
40 provided with a depending projection, lug, hook, finger or kindred catch, to drop into and connect with a mesh, may be employed.

Such being the case and notwithstanding that the special construction of clamp shown
45 in Fig. 4 forms the subject-matter of a separate application hereinbefore referred to, it is proper to explain that the clamp of Fig. 4 embodies a fixed clamping member 9 and a movable clamping member 10 pivoted
50 together at 11 and adapted to be locked together by a locking cam 12; that the fixed member shown may be of serpentine or S-shaped form or otherwise elevated above the netting so as to give it height or raise it
55 above the level of the surface of the netting, and that it is provided with a depending projection, lug or hooking finger, 13, and preferably with an upwardly projecting finger piece which the finger of the operator
60 is adapted to take hold of in the stretching of the skin.

In the double netting construction shown in Figs. 5 and 6, the frame is conveniently composed of a channel-bar 15 and is pro-
65 vided with fastening plates 16 to secure the

fastening of the two nettings 17 and 18 which are spaced some little distance apart and preferably occupy parallel planes.

In the construction represented in Figs. 1, 2 and 3, a reference to Fig. 2 will indicate 70 that when the skin has been stretched and the hooks of the clamps appropriately engaged with the meshes of the netting, the skin will clear or lie at some distance above the lower level of the webbing. The advan- 75 tage of this clearance will be obvious when, for instance, the skin is of patent leather and an operation of coating or subsequent rubbing is to be performed upon it while in position on the frame.

The construction represented in Figs. 5 and 6 permits of the application of two skins to a frame which carries two nettings.

Although I have described and shown in one construction a frame composed of an- 85 gle-bars and in the other construction a frame composed of channel bars, I do not confine myself to such special constructions, nor yet, as already stated, do I confine myself to any form of clamping device so long 90 as there be used one which does not injure the skin and which may be readily shifted or deflected to engage the properly located mesh.

Among the advantages incident to my in- 95 vention in its application to skins and leathers, are that it avoids trimming of the leather and the employing of experienced hands,—that more measurements, so to speak, of the skins are effected, while the 100 leather dries more quickly and effectually,—that the frames are practically indestructible and fire-proof,—that the device can be used with leather of any thickness,—that the entire skin under treatment can be ele- 105 vated from the surface,—and that the avoidance of tacks prevents the damaging of the embossing machinery.

The advantages of my invention in con- 110 nection with its application to the treatment of patent leather, are that it saves the use of cord in toggling,—that in case of the skin breaking away in the oven, it will drop on the netting and not upon an underlying skin,—and that the skins can be stretched 115 very much more tightly than under any present method, with the result that the leather has but little stretch after being japanned and therefore the finish is less liable to crack. 120

It will now be apparent that I have de- 125 vised a novel and useful apparatus for stretching and drying leather; which embodies the features of advantage enumerated as desirable in the foregoing description, and 125 while I have, in the present instance, shown and described preferred embodiments of it which, in practice, will give satisfactory and reliable results, it is to be understood that the invention is susceptible of modification 130

in various particulars without departing from its spirit or scope or sacrificing any of its advantages.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. A stretching apparatus, which comprises a netting the surface of which is dished, a frame for holding and supporting said netting, and a plurality of clamping devices which clamp the edges of the article to be stretched and are each provided with a depending member adapted to be hooked into a mesh of the netting.

2. A stretching apparatus, which comprises a netting the surface of which is dished, a frame provided with curved braces for holding and supporting said netting, and a plurality of clamping devices which clamp

the edges of the article to be stretched and are each provided with a depending member adapted to be hooked into a mesh of the netting.

3. A stretching apparatus, which comprises a netting the surface of which is dished, a frame provided with curved braces for holding and supporting said netting, and a plurality of clamping devices which clamp the edges of the article to be stretched and each of which is provided with a hooking member to hook into a mesh of the netting and with a pulling member to permit of its being manually pulled.

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Witnesses:

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