F. J. PERKINS.

SECTIONAL WORK SUPPORT FOR LEATHER WORKING MACHINES.

APPLICATION FILED MAR. 26, 1910.

986,497.

Patented Mar. 14, 1911.

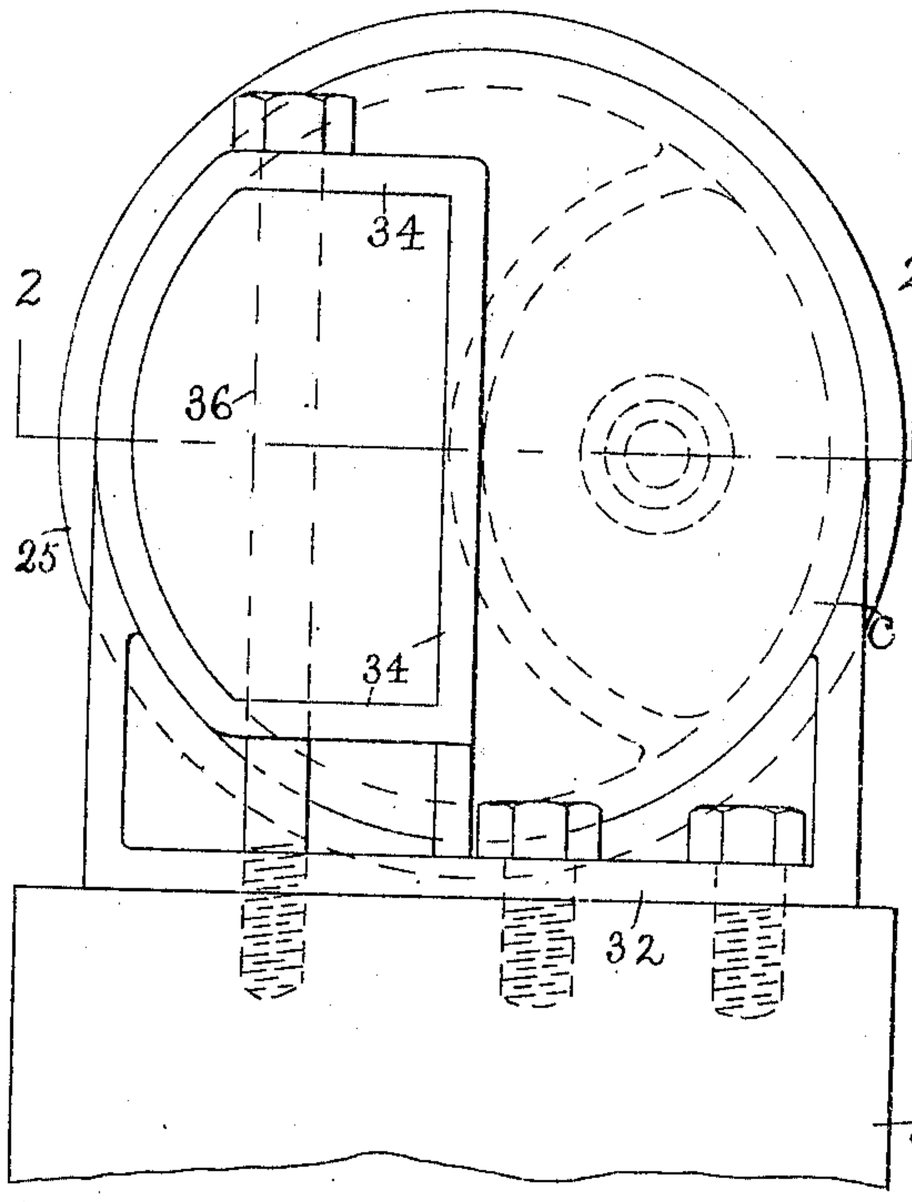

Fig. 1.

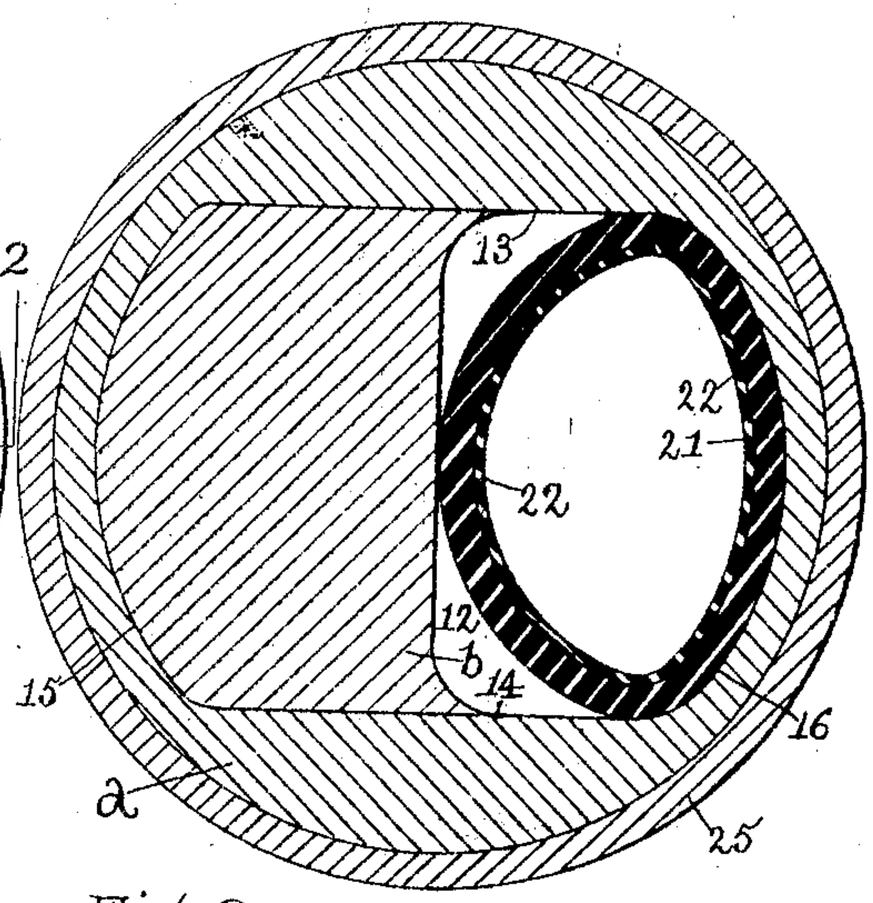

Fig. 3.

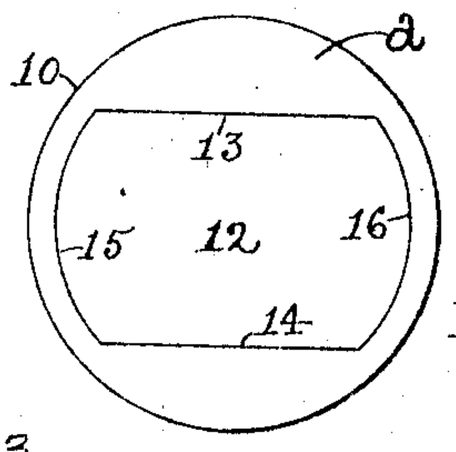

Fig. 4.

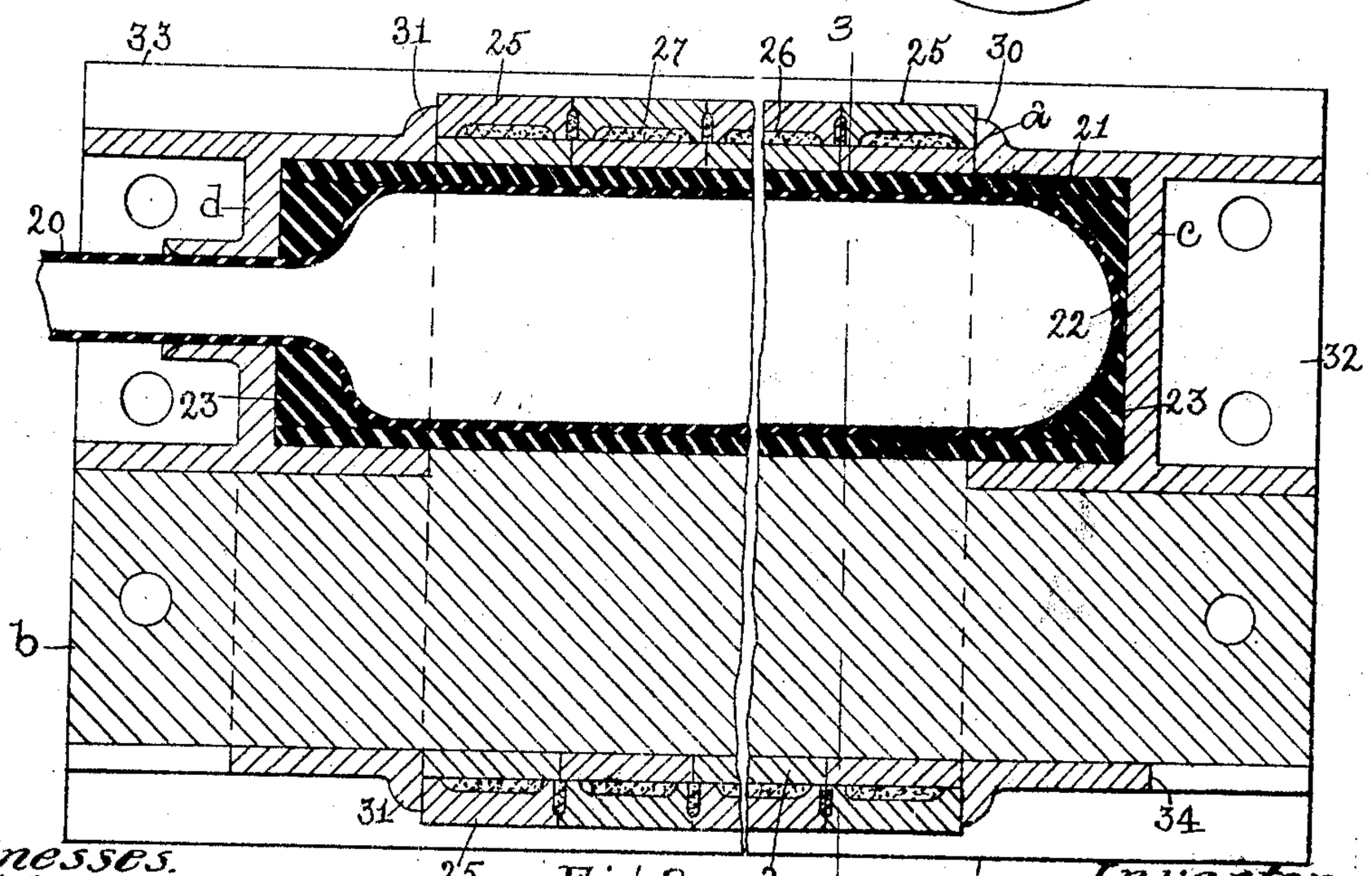

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

FRANKLIN J. PERKINS, OF WOBURN, MASSACHUSETTS, ASSIGNOR TO HOLDER-PERKINS COMPANY, OF WOBURN, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

SECTIONAL WORK-SUPPORT FOR LEATHER-WORKING MACHINES.

986,497. Specification of Letters Patent. **Patented Mar. 14, 1911.**

Application filed March 26, 1910. Serial No. 551,753.

To all whom it may concern:

Be it known that I, FRANKLIN J. PERKINS, a citizen of the United States, residing in Woburn, county of Middlesex, and State of Massachusetts, have invented an Improvement in Sectional Work-Supports for Leather-Working Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a sectional work-support, especially adapted among other uses to be employed in hide and leather working machines.

The invention has for its object to provide a sectional work-support, preferably in the form of a roll in which the individual sections or members may be made of metal or other rigid material and be capable of movement in one direction in response to external pressure and of being moved in the opposite direction by means within said members whereby an effective, durable, and inexpensive work-support is obtained, which is particularly serviceable as a bed roll.

The particular features of the invention will be pointed out in the claims at the end of this specification.

Figure 1 is an end elevation of one form of sectional roll embodying this invention. Fig. 2, a longitudinal section taken on the line 2—2, Fig. 1. Fig. 3, a cross section on the line 3—3, Fig. 2, and Fig. 4, a detail to be referred to.

In the present instance, I have illustrated one construction of sectional work-support embodying this invention, which I may prefer, and which comprises a series of circular sections or members *a* arranged side by side on a supporting bar *b* between end disks or headers *c*, *d*. Each member *a* is provided with a circular exterior surface 10 and with an interior slot or opening 12, which is preferably elongated and provided with substantially parallel sides 13, 14, and with curved end walls 15, 16. The elongated slot or opening 12 has extended through it the supporting and guiding bar *b*, whose height is equal to the width of the elongated slot 12 and whose width is less than the length of the said elongated slot as shown in Fig. 3, whereby a space is left between one end of the slot 12 and the adjacent face of the guide bar *b*, so as to enable the members *a* to move transversely of the guiding bar individually. Provision is made for keeping the rear wall 15 of the slot 12 in contact with the rear side of the supporting bar *b*, so that the external surfaces of the members or sections *a* may coincide and be in the same line, and for this purpose yielding means are located in the space between the supporting bar *b* and the front end wall 16 of the slots 12 in the sections or members *a*. The yielding means may be in the form of rubber or metal springs or cushions, but I prefer to make the yielding means as a pneumatic tube, which extends through all of the sections or members as represented in Fig. 2, and which is provided with an inlet pipe or tube 20, which may be connected with a suitable supply of air under pressure in a manner well known and substantially as in United States Patent No. 854,419 granted May 21, 1907 to Henry A. Holder. In the present instance, the pneumatic tube is composed of an outer tube or cylinder 21 of substantial thickness and of rubber and fabric or thick rubber, and a flexible inner tube 22, which may be reinforced at its ends by washers 23 of rubber or other non-metallic material.

From the above description, it will be seen that the inner tube 22 may be inflated with air or other fluid under a predetermined pressure, which serves to move or slide the individual sections or members *a* on the supporting bar *b* and bring their outer circumferences into alinement to form a working surface upon which the hide, skin, leather or other work may be supported while undergoing treatment as for instance, with a revolving bladed roll (not shown) but such as now commonly used in leather working machines. The yielding medium interposed between the bar *b* and the front end wall 16 of the slot 12 in each section, permits the latter to be slid back transversely on the supporting bar *b* to compensate for uneven thickness in the work interposed between the sections or members and the operating tool.

The roll as thus far described, may be used as a work-support, but I may prefer to provide each section with a ring 25 loosely mounted thereon to be capable of rotary movement on the said member or section, and to facilitate this rotary movement, said ring may be provided on its inner circum-

ference with an annular groove 26, which may be filled with graphite or other lubricant 27.

The rings 25 are retained in place by flanges 30, 31 on the end disks *c*, *d*, which are also provided with bottom flanges 32 by means of which the roll can be bolted to a support 33, and said end disks are further provided with flanges 34 about the openings in the same through which the ends of the supporting bar *b* are extended, which bar is also fastened to the end disks and the base or support 33 by bolts 36.

Claims.

1. A work-support of the character described, comprising a plurality of circular sections or members, provided within their circumference with elongated slots, a supporting bar extended through said slots and upon which said members are capable of sliding transversely thereof, and a flexible tube extended through said slots between one end wall thereof and said bar and containing fluid pressure, substantially as described.

2. A work-support of the character described, comprising a plurality of circular sections or members, provided within their circumference with elongated slots, a supporting bar extended through said slots and upon which said members are capable of sliding transversely thereof, a flexible tube extended through said slots between one end wall thereof and said bar and containing fluid pressure, and rings loosely mounted on the exterior of said sections or members and rotatable thereon, substantially as described.

3. A work support of the character described, comprising a plurality of sections or members, each having an opening, a support extended through the openings of said members and having guiding surfaces in sliding engagement with the said members to permit free movement in one direction and to restrain the members from moving in a direction substantially at right angles thereto, and yielding means located in the path of movement of said members between the guiding surfaces of the support and an end wall of said opening, substantially as described.

4. A work-support of the character described, comprising a plurality of sections or members, each having an opening, a support extended through the openings of said members and upon which the latter are capable of movement transversely thereof, and a pneumatic tube extended through the openings of said members between said support and an end wall of said openings, substantially as described.

5. A work-support of the character described, comprising a plurality of circular sections provided with openings in alinement, a support extended through said openings and upon which said sections are capable of bodily movement transversely thereof, yielding means interposed between said support and said sections, and rings loosely mounted on the exterior of said sections and bodily movable thereon in a circular path, substantially as described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

FRANKLIN J. PERKINS.

Witnesses:

JAS. H. CHURCHILL,

J. MURPHY.