Aug. 14, 1923. 1,464,910

O. LANDAW

METAL TABLE TOP STRETCHER

Filed Feb. 25, 1922 2 Sheets-Sheet 1

Fig. 1.

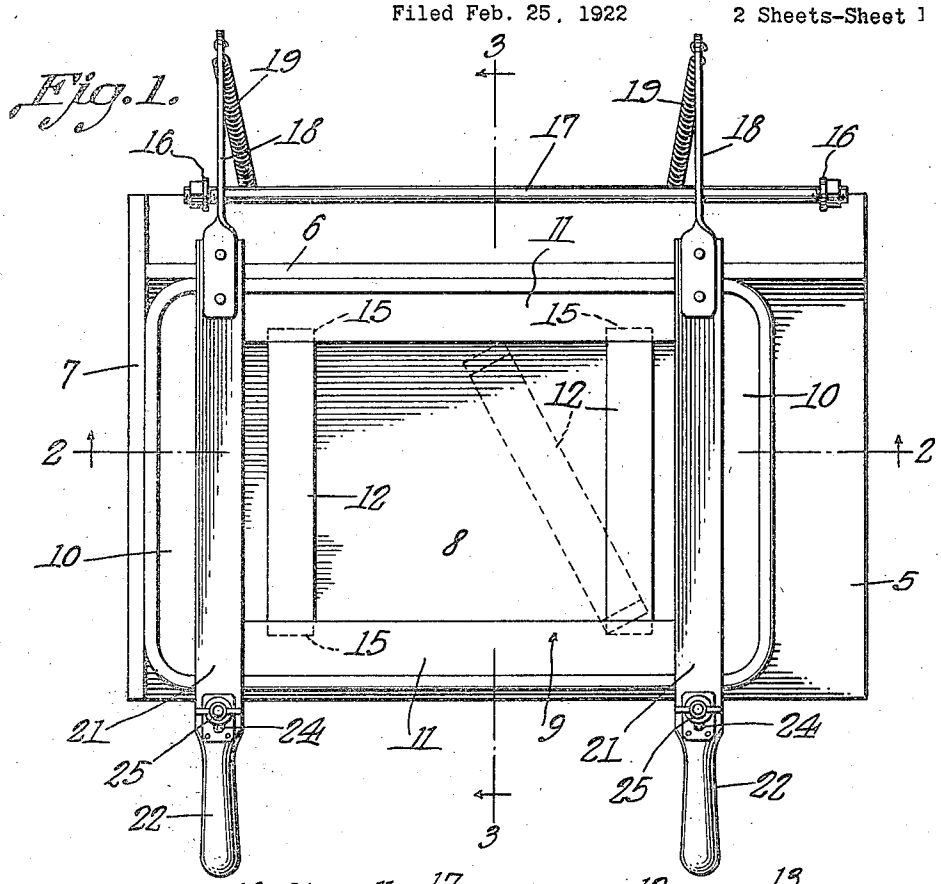
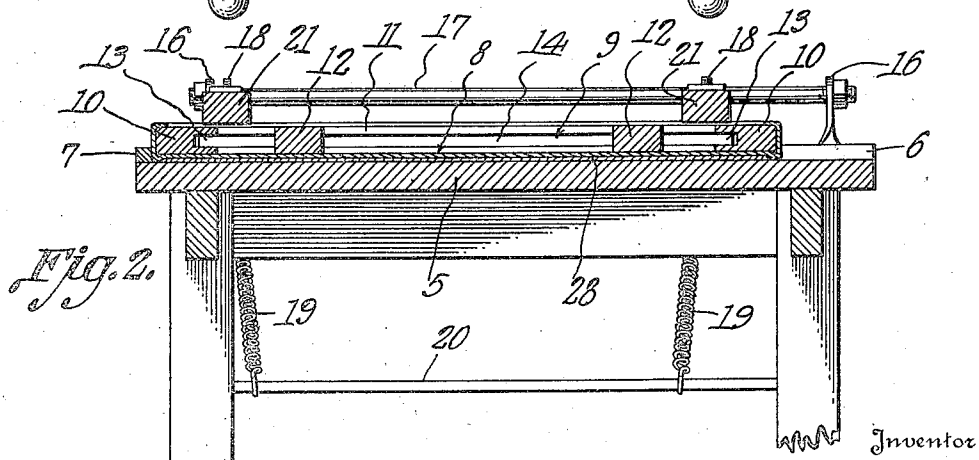


Fig. 2.



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Fig. 3.

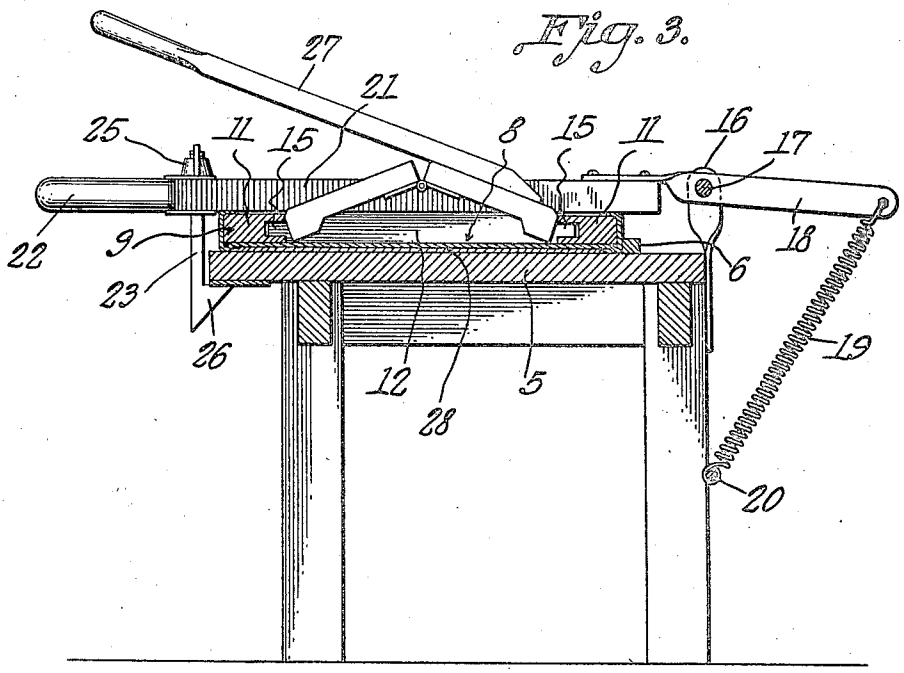
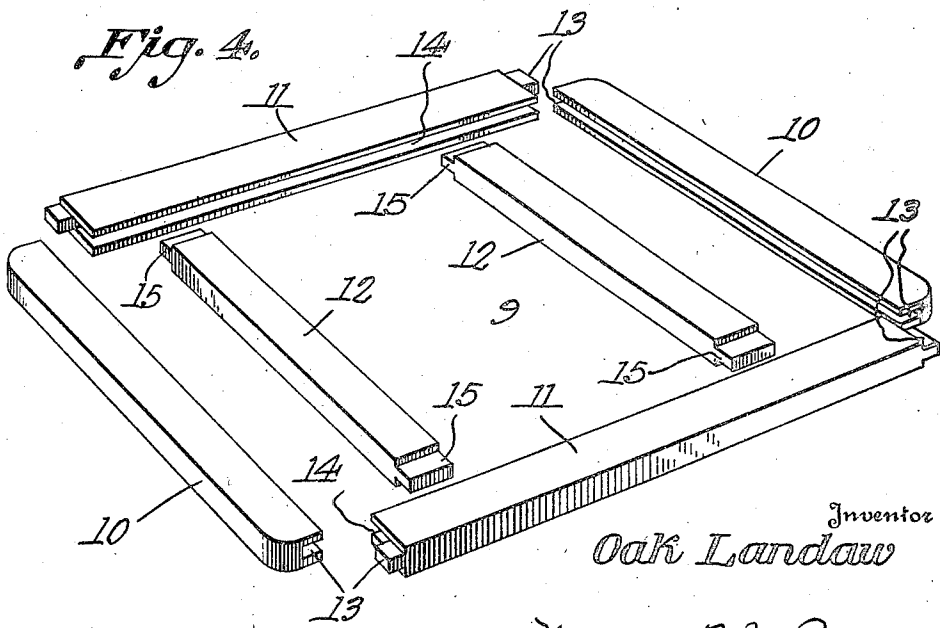


Fig. 4.



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UNITED STATES PATENT OFFICE.

OAK LANDAW, OF NAPPANEE, INDIANA.

METAL-TABLE-TOP STRETCHER.

Application filed February 25, 1922. Serial No. 539,316.

To all whom it may concern:

Be it known that I, OAK LANDAW, a citizen of the United States, and a resident of Nappanee, in the county of Elkhart and State of Indiana, have invented a new and useful Improvement in a Metal-Table-Top Stretcher, of which the following is a specification.

My invention is a metal table top or sink cover stretcher and its principal object is to provide a device which will stretch the sheet metal forming the table top or sink cover to remove the bow or bulge therefrom and retain the top in stretched condition while means is being assembled therewith to permanently hold the top or cover in a true horizontal plane.

A further object of the invention is to provide a sheet metal table top or sink cover stretcher wherein the end members of the table top or sink cover are positively clamped to a flat base and thereby cause the metal top to expand parallel thereto while the longitudinal or side rails of the top or cover are held by means of a jack or other device against the sides of the table top or cover, the side rails being permanently secured in this position by means of transverse braces.

It is also an object of the invention to provide a sheet metal stretching mechanism that includes a sheet metal holding table and pivoted clamping bars for clamping the sheet metal in outstretched condition and which are automatically swung to inoperative position after the sheet metal has been operated upon.

Still another object of the invention is to provide a metal table top stretcher which embodies a rectangular shim for interposition between the table top and the supporting base therefor whereby to prevent the usual bead around the edges of the table top from being crushed by the pressure of the clamping bars.

With the preceding and other objects and advantages in mind, the invention consists in the novel combination of elements, constructions, operations and specific details to be hereinafter fully referred to, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a top plan view of the device holding a table top in working position, the dotted line position of one of the transverse braces illustrates the manner in which the braces are engaged with the table top frame;

Fig. 2 is a vertical longitudinal sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a vertical transverse sectional view taken on line 3—3 of Fig. 1 and showing an expanding jack engaging the side rails of the table top for holding the latter in position while the same are being permanently fastened in place; and

Fig. 4 is a perspective of the table top frame disassembled.

Referring in detail to the drawings, wherein like characters of reference designate like parts throughout the several views, the numeral 5 designates a table or base upon which the metal table top or sink cover is supported. Secured to the supporting table or base 5 are right-angularly extending rails 6 and 7, the purpose of which is to position the table top correctly on the base or supporting table 5.

In table tops of this character the sheet metal top indicated at 8 is mounted on a frame designated in its entirety at 9. As shown, particularly in Fig. 4, this frame includes end members 10, side rails 11 and transverse braces 12. The side rails 11 are slidably associated with the end members 10 by means of tongue and groove connections 13 while the opposite faces of the side rails 11 are provided with longitudinal grooves 14 for the reception of tongues 15 on the ends of the transverse members 12.

In accordance with my invention, the end members 10 are clamped to the supporting table 5 and by means of a jack the side rails 11 are expanded or moved away from each other and thereby stretch the table top and remove the bow or bulge therefrom. While in this position the transverse braces 12 are arranged at an angle as shown in dotted lines in Fig. 1 and then driven home to extend transversely of the table top as shown in Fig. 1.

Secured to the rear longitudinal edge of the supporting table 5 is a pair of upstanding ears 16 in which a horizontal rod 17 is supported. Pivotally mounted on the rod 17 adjacent the ends thereof are arms 18 the rear ends of which are connected with contractile springs 19 which are anchored to a horizontal rod 20 secured to the legs of

the table 5. Clamping bars 21 are attached to the opposite ends of the arms 18 and have their free ends formed with handles 22. In order to hold the clamping bars in clamped engagement with the end members 10 of the frame 9 latch elements 23 are provided. These latch elements 23 extend through slots 24 and have their upper ends threaded to receive wing nuts 25. The lower ends of the latch elements 23 are formed with beveled extensions 26 which engage the under face of the supporting table 5 as shown in Fig. 3. It will be seen that upon tightening the wing nuts 25 the clamping bars 21 will exert downward pressure on the metal table top 8 and spread the same transversely. Then by means of the expanding jack 27 the side rails 11 will be moved away from each other and the transverse members 12 engaged therewith as above outlined.

In order to prevent the beading extending around the edges of the metal table top 8 from being crushed due to the downward pressure of the clamping bars 21 a rectangular shim 28 of a thickness equal to the height of the beading is interposed between the supporting table 5 and the metal table top 8 as shown in Figs. 2 and 3.

It is to be understood that the form of my invention herein shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, what I claim as new and desire to secure and protect by Letters Patent of the United States is:

1. The method of manufacturing sheet metal table tops, consisting of assembling the top with a rectangular frame whose side rails are capable of sliding movement away from each other, applying pressure to the end members of the frame to remove the bow from the table top, then sliding the side rails away from each other to the limit of their movement and finally placing braces between the side rails to prevent the latter from moving toward each other.

2. A metal table top stretching device for a table top having a reinforcing frame comprising a base, a pair of clamping bars pivotally connected with the base and adapted to engage the end members of the table top frame, latch elements carried by the free ends of the clamping bars for engagement with the base, and means for forcing the side rails of the table top frame away from each other and holding the same in such position until braces are engaged between the side rails.

3. A device of the character described comprising a work supporting table having a base, a plurality of clamping bars pivoted thereto, adjustable latch elements carried by the free ends of the clamping bars and adapted to engage the supporting base to hold the clamping bars against the article to be operated upon.

4. A device of the character described comprising a work supporting table having a base, a plurality of clamping bars pivoted thereto, adjustable latch elements carried by the free ends of the clamping bars and adapted to engage the supporting base to hold the clamping bars against the article to be operated upon, and contractile springs operatively connected with the base and clamping bars and normally urging the latter to inoperative position.

5. A device of the character described comprising a work supporting table having a base, a plurality of clamping bars pivoted thereto, adjustable latch elements carried by the free ends of the clamping bars and adapted to engage the supporting base to hold the clamping bars against the article to be operated upon, and means normally urging the clamping bars to inoperative position.

6. A device of the character described comprising a base, upstanding ears carried thereby, a horizontal rod supported in the ears, arms pivoted on the rod, clamping bars carried by the arms, elements carried by the free ends of the clamping bars adapted to engage the base and capable of adjustment whereby to exert pressure on the clamping bars, and means normally swinging the arms away from the supporting base.

7. A metal table top stretcher for a table top having a reinforcing frame comprising a base, clamps associated therewith for clamping the ends of the table top frame to the base to spread the former, and a shim of substantially the same area as the table top for interposition between the same and the base to prevent the table top beading from being crushed.

8. A device of the character described comprising a work supporting table, a pair of clamping bars pivoted thereto adapted to engage the work arranged on the table and provided with slots adjacent their free ends, shanks loosely passing through the slots and having their upper ends threaded, extensions carried by the lower ends of the shanks for engagement with the table, wing-nuts threaded on the upper ends of the shanks for adjusting the clamping bars toward the table.

9. A device of the character described comprising a work supporting table, a pair of clamping bars pivoted thereto adapted to engage the work arranged on the table and provided with slots adjacent their free

ends, shanks loosely passing through the slots and having their upper ends threaded, extensions carried by the lower ends of the shanks for engagement with the table, wing-nuts threaded on the upper ends of the shanks for adjusting the clamping bars toward the table, and coil springs connected with the pivoted ends of the clamping bars and with the supporting table whereby upon shifting the shanks laterally in the slots the clamping bars will be swung away from the table.

OAK LANDAW.