R. TOMASEK.

DIE ADJUSTER.

APPLICATION FILED NOV. 21, 1917.

1,279,945. Patented Sept. 24, 1918.

Fig. 1.

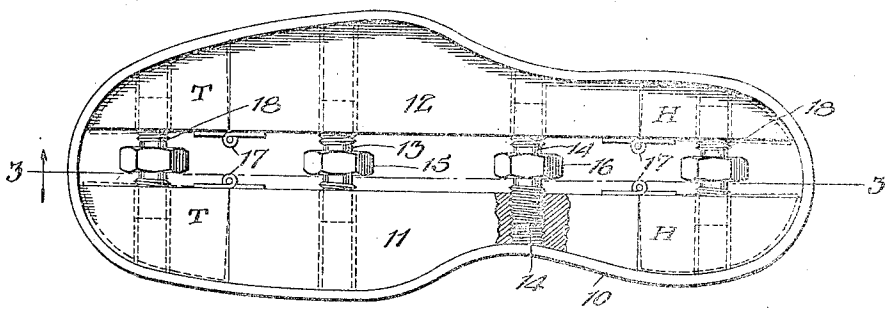


Fig. 2.

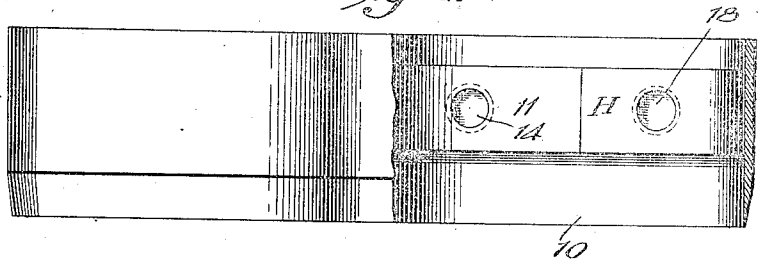
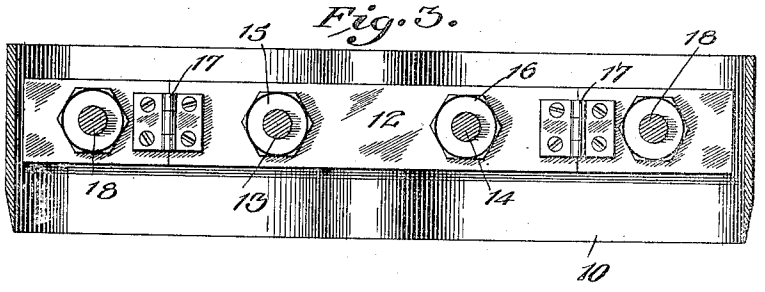


Fig. 3.



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RUDOLF TOMASEK, OF OMAHA, NEBRASKA.

DIE-ADJUSTER.

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To all whom it may concern:

Be it known that I, RUDOLF TOMASEK, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Die-Adjusters; 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.

This invention relates to adjusters for cutting dies and has for an object to provide a device for expanding and returning to normal shape dies distorted in use.

A further object of the invention is to provide a die having means for internal expanding and provided with borders shaped to conform to the normal die whereby when expanded within the die the die is adjusted to its true proportions.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawings:

Figure 1 is a view of one form of the adjuster adapted for use in connection with a sole cutting die shown in position in such cutting die,

Fig. 2 is a view of a die partly in side elevation and partly broken away showing a section of the adjuster in side elevation, and

Fig. 3 is a sectional view through a die and the adjuster taken on line 3—3 of Fig. 1.

Like characters of reference designate corresponding parts throughout the several views.

It is well known that in the employment of cutting dies the dies become distorted from use and are therefore useless. This is especially true in sole dies where the die is employed in cutting heavy sole leather which by reason of irregularity, wrinkles or other imperfections subjects the die to distortion and rough usage. The distortion of the die even to a very limited extent renders the die useless and under ordinary conditions the die must be discarded and a new die employed which renders the use and distortion of such dies expensive.

The present invention is illustrated in association with a sole cutting die which will be the principal use for which it is employed but it is to be understod that it is not limited to use in connection with such die alone.

In the drawings a sole cutting die 10 is shown conventionally, it being understood that the present invention does not reside in the die and that the die shown is intended to be only illustrative of the function of the device which forms the subject matter of this invention.

The invention itself comprises two bars or mandrels 11 and 12 having their outer sides or edges conformed to the shape of the die with which they are to be employed and mounted upon screws 13 and 14, having each right and left threads. The screws 13 and 14 are respectively provided with nuts or angular portions 15 and 16 by which and the use of a wrench the screws 13 and 14 may be rotated to expand the device by separating the members 11 and 12.

When the die becomes distorted from use the adjuster is collapsed and inserted within the die and then expanded by rotating the nuts 15 and 16 until pressure is exerted upon the die sufficient to return such die to normal shape. It is obvious that the inwardly extending curves may require the use of blow or pressure externally applied but the members 11 and 12 serve as mandrels or anvils for accomplishing this purpose.

As the heel and toe portion of the die may not require the same degree of re-formation as the sides, the shaping blocks, one each provided with toe and heel section T and H of the desired contour these sections being hinged at 17 to the inner corners of the main blocks to swing in the plane thereof. The end sections are connected in coördinate pairs by screws 18 having each reverse threads and polygonal parts to receive a wrench.

What is claimed is:—

1. In a device of the class described, spaced mandrels having their remote sides shaped to conform to the interior of a predetermined band-die; and right and left screws between and adjacent the ends of and connecting the mandrels capable of expanding the mandrels when rotated, said mandrels each formed of articulated sections.

2. In a device of the class described, spaced mandrels having their remote sides

shaped to conform to the interior of a predetermined band-die, and right and left screws between and connecting the mandrels capable of expanding the mandrels when rotated, said mandrels each formed of articulated sections, and means for adjusting certain sections independently of others.

3. A device for re-forming elastic endless band-dies, comprising a pair of mandrels having jointed side sections insertible into the space within the die and adapted to be adjusted to conform to the die.

In testimony whereof I affix my signature.

RUDOLF TOMASEK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."