

April 13, 1926.

1,580,358

A. WRIGHT

FENDER VISE

Filed March 26, 1924

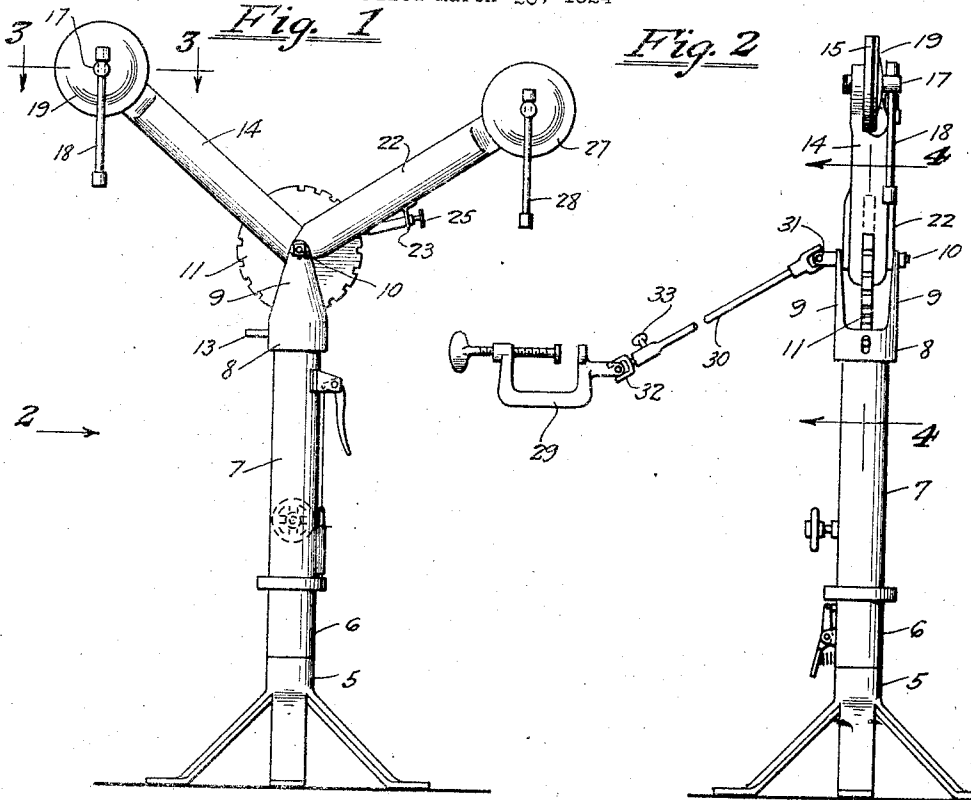
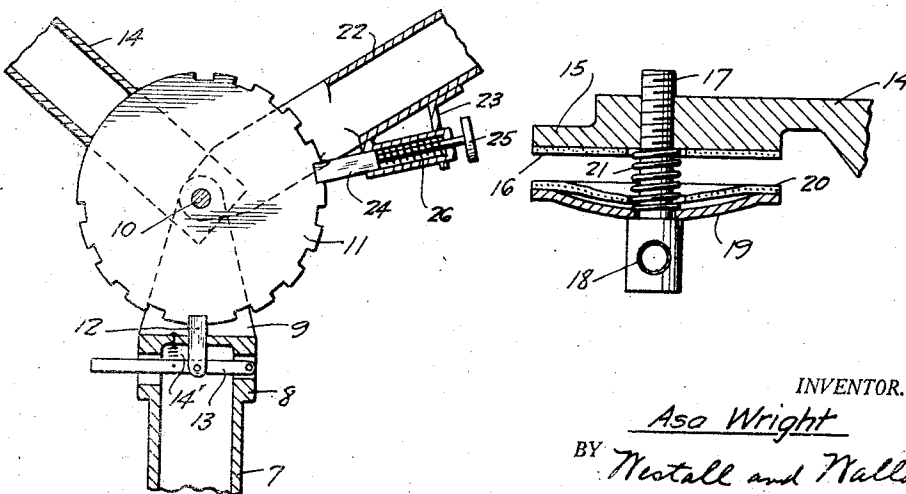


Fig. 4

Fig. 3



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FENDER VISE.

Application filed March 26, 1924. Serial No. 701,975.

To all whom it may concern:

Be it known that I, ASA WRIGHT, a citizen of the United States, and resident of Long Beach, in the county of Los Angeles, State of California, have invented a new and useful Improvement in a Fender Vise, of which the following is a specification.

This invention relates to a device for holding sheets of metal having various shapes, and one of its particular uses will be found in holding automobile fenders while work is being performed thereon.

Repair work on automobile fenders often is best performed by removing the fender from the body of the car. The primary object of this invention is to provide a device for holding and stabilizing the work, and also to position it for convenience and accessibility in working upon it. In addition to the broader objects of this invention, there are certain details of structure, whereby convenience in operation of the vise and manipulation of the work together with economy and simplicity are obtained.

These objects together with other objects and corresponding accomplishments are obtained by means of the embodiment of my invention illustrated in the accompanying drawing, in which:

Fig. 1 is a front elevation of a device constructed in accordance with my invention; Fig. 2 is a side elevation thereof; Fig. 3 is a section on an enlarged scale as seen on the line 3—3 of Fig. 1; and Fig. 4 is a section on an enlarged scale of a fragment of the vise as seen upon the line 4—4 of Fig. 2.

Referring more particularly to the drawing, a base 5 has a tubular standard and legs whereby it may be secured to the floor. Mounted upon the standard is a collar 6 which may be raised and lowered, and supported upon the collar is a column 7 which may be rotated thereon. However, as the details of the parts just described form no part of the present invention, they will not be further described.

At the top of the column 7 is a clamp carriage for holding the work. The carriage comprises head 8 having ears 9. A pivot pin 10 is mounted between the ears, and rotatably supported upon the pin 10 is a wheel 11. A dog 12 for engagement with the teeth is mounted in the head and is pivotally secured to a handle 13 mounted in the head 8. A tension spring 14 tends

to hold the handle in its upper position and the dog against the wheel 11. In order to turn the wheel the handle must be depressed to withdraw the dog from the teeth. Release of the handle permits the dog to enter between the teeth and hold the wheel in position. Fixedly secured to the wheel 11 is a jaw arm 14. Thus, turning of the wheel 11 will swing arm 14. At the end of arm 14 is a clamp comprising jaw 15 of disk form, and preferably lined with a padding material 16 such as canvas. The jaw 15 is provided with a threaded bore and mounted therein is a screw 17 having a head in which is a handle 18. Loosely mounted upon the screw 17 is a disk jaw 19 faced with a padding material 20. A compression spring 21 tends to maintain the jaw 19 in its outer position. An arm 22 is bifurcated at the lower end so that it may span the wheel 11. Arm 22 is mounted upon the pin 10 so that it may be swung. An extension 23 has a dog 24 slidably mounted therein for engagement with the teeth on wheel 11. A head 25 convenient for grasping so as to withdraw the dog from the indentation on the wheel 11 is provided. A spring 26 tends to force the dog into the indentation in the wheel. At the end of arm 22 is a clamp 27 similar in construction to the clamp on arm 14. A handle 28 is provided for tightening the jaws thereof.

Automobile fenders are commonly provided with an outer flange which is placed between the jaws of the clamp and clamped in position. Arm 22 may be turned upon the wheel 11 so as to adjust its position convenient for grasping the flange, this being necessary due to the difference in curvature in the fender surfaces. After the flange has been clamped in position, a clamp 29 is secured to the other edge at some convenient point for assisting stabilization of the fender. The clamp 29 is mounted by a swivel upon an arm 30, which in turn is secured by a universal joint to a bracket 31 secured to the end of pin 10. The arm 30 is hollow and a rod forming an extension of the clevis 32 is mounted in the rod forming a telescopic connection, the screw 33 serving to fasten the rod and arm in any selected position. The entire fender may be tilted by retracting dog 12 from the wheel, thereby permitting the wheel to be turned and the vise arms simultaneously turned. In this manner the

fender may be positioned so that it is convenient for working upon.

It is obvious that the vise may be adapted to holding fenders of various shapes and sizes, there being a minimum of parts requiring adjustment. The device is of such a nature that all parts of the fender are easily accessible, substantially no part of the machine being in a position to interfere with the work. After the fender is once in position it may be turned or tilted as a whole, in order to position the parts to be worked upon in its most accessible and best lighted position for the particular work to be done.

What I claim is:

1. In a device of the character described, the combination of a base; and a clamp carriage mounted on said base for angular adjustment thereon, said carriage comprising a fixed arm having a clamp at the free end, and a movable arm having a clamp at the free end connected by a pivot pin to said fixed arm adjacent the pivotal connection of said carriage and base, whereby said arms may be angularly moved on said base and adjustably spaced with respect to one another, each of said clamps comprising a pair of jaw disks, one of the jaws being mounted so as to permit a wobbling movement.

2. In a device of the character described, the combination of a base; and a clamp carriage mounted on said base for angular adjustment thereon, said carriage comprising a plurality of arms, each arm having a clamp at the free end, said arms being connected by a pivot pin adjacent the pivotal connection of said carriage and said base, whereby said arms may be moved as a unit on said base and adjustably spaced with respect to

one another both in one plane, each of said clamps comprising a pair of jaw disks, one of the jaws of each clamp being mounted so as to permit a wobbling movement.

3. In a device of the character described, the combination of a base; and a clamp carriage comprising a toothed wheel journaled on said base, a dog on said base for engagement with said wheel whereby to hold the latter in adjusted position; and a pair of arms having clamps mounted on said wheel so as to be angularly and adjustably spaced.

4. In a device of the character described, the combination of a base; and a clamp carriage comprising a toothed wheel journaled on said base, a dog on said base for engagement with said wheel whereby to hold the latter in adjusted position, a pair of clamps mounted on said carriage so as to be adjustably spaced, each of said clamps comprising a pair of jaw disks, one of which is mounted so as to permit a wobbling movement.

5. In a device of the character described, the combination of a base; and a clamp carriage comprising a toothed wheel journaled on said base about a horizontal axis, a dog on said base for engagement with said wheel whereby to hold the latter in adjusted position, an arm fixed to said disk and having a clamp, and an arm having a clamp at the end thereof pivotally secured to said disk whereby said arms may be angularly and adjustably spaced.

In witness that I claim the foregoing I have hereunto subscribed my name this 20th day of March, 1924.

ASA WRIGHT.