J. B. OUELLETTE.

BENDING ATTACHMENT FOR VISES.

APPLICATION FILED JULY 1, 1921.

1,397,980.

Patented Nov. 22, 1921.

2 SHEETS—SHEET 1.

Fig. 1.

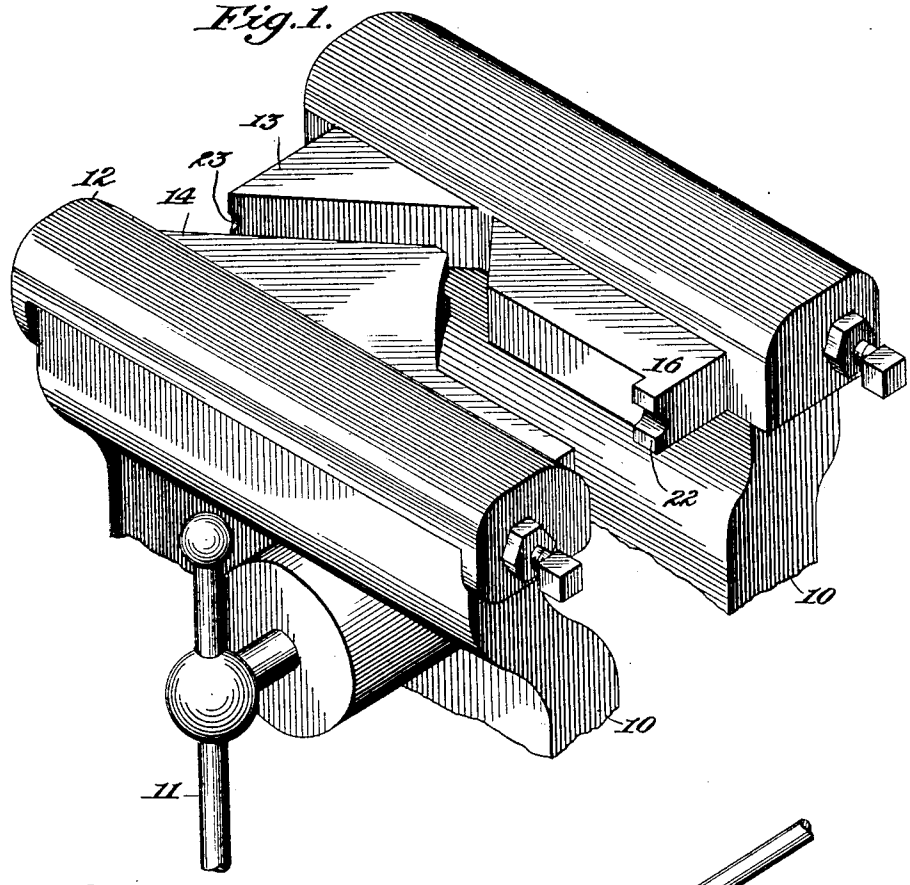
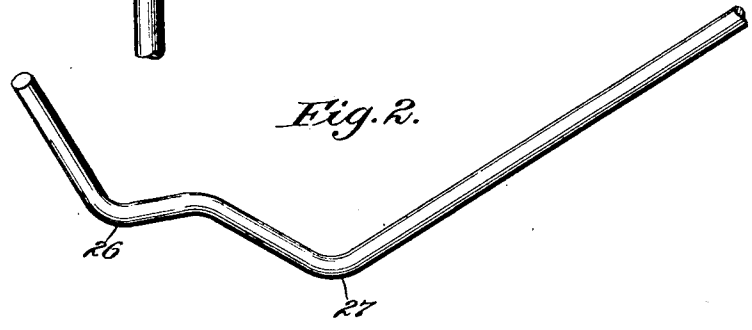


Fig. 2.



Inventor:
John B. Ouellette,
By Cushman, Bryant & Darby
Att'ys.

J. B. OUELLETTE.

BENDING ATTACHMENT FOR VISES.

APPLICATION FILED JULY 1, 1921.

1,397,980. Patented Nov. 22, 1921.

2 SHEETS—SHEET 2.

Fig. 3.

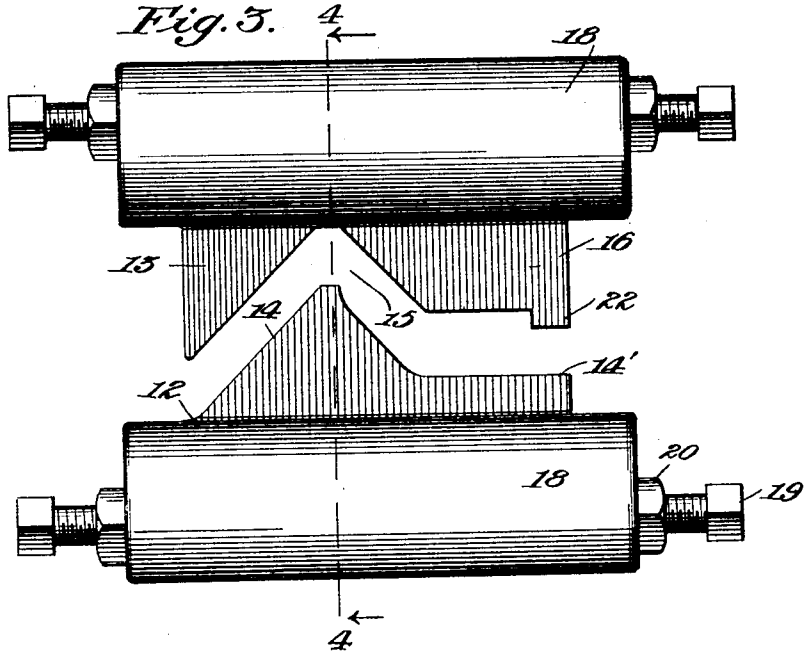
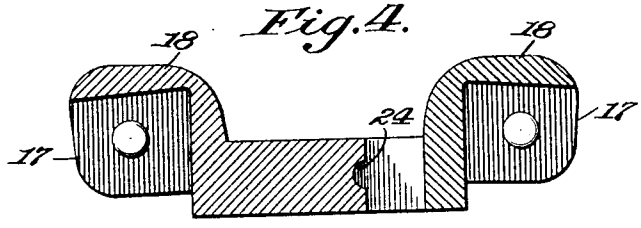


Fig. 4.



Inventor:
John B. Ouellette,
By Cushman, Bryant & Darby
Att'ys.

UNITED STATES PATENT OFFICE.

JOHN B. OUELLETTE, OF NEW BEDFORD, MASSACHUSETTS.

BENDING ATTACHMENT FOR VISES.

1,397,980. Specification of Letters Patent. Patented Nov. 22, 1921.

Application filed July 1, 1921. Serial No. 481,890.

To all whom it may concern:

Be it known that I, JOHN B. OUELLETTE, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Bending Attachments for Vises, of which the following is a specification.

This invention relates to an attachment to be applied to an ordinary bench-vise for the purpose of suitably bending lengths of wire or rod and the like therein.

It is an object of the invention to provide a bending device which may be quickly applied to and removed from the vise without, in any way, adjusting or altering the vise construction.

Another object of the invention is the provision of a bending device which will accurately bend the rod, wire, or other article, being operated upon without mutilating the article or distorting it at any other point than where it is to be bent.

The above and other objects of a more specific character are attained by the provision of a device comprising a pair of complemental sections each adapted to be secured to a jaw of a vise. One of the sections is formed with a projection and the other has a recess adapted to receive the projection when the jaws of the vise are brought together. One of the sections, preferably the section formed with the recess, may be provided with a seat to support the article to be bent, and to hold it in proper position as the jaws of the vise are closed.

In the accompanying drawings my invention is shown as embodied in a device intended, primarily, for the bending of heavy wire or lengths of rod, although it will be understood that other material may be readily bent and shaped by slightly modifying the size and configuration of each of the sections of the device.

In the accompanying drawings:—

Figure 1 is a perspective of the device applied to a vise.

Fig. 2 is a view of a length of rod that has been bent.

Fig. 3 is a top plan view of the bending device removed from the vise, and

Fig. 4 is a cross sectional view on the line 4—4 of Fig. 3 looking in the direction of the arrows.

Referring to the drawings for a more detailed description, like numerals indicating similar parts throughout the several views, 10 indicates the jaws of a vise of ordinary construction which may be adjusted by means of the usual handle 11. The bending device comprises a pair of complemental sections 12, 13, which may be formed of cast metal or other suitable material and shaped in any desired manner. The section 12 has a projection 14 substantially V-shaped in outline and merging at one side into a narrow web 14′. The projection coöperates with a recess 15 formed in a web 16 upon the complemental section. The recess and the projection are, preferably, of substantially the same shape, in the present instance, V-shaped, so as to accurately bend the length of rod. It will be understood, however, that the shape of the projection and recess may be varied, as desired, to modify the character of the bend to be produced. Each of the sections is provided with means whereby it may be detachably and securely positioned upon a vise jaw. In the illustrated embodiment of the invention this means comprises a pair of spaced ears 17 connected by a top web 18 extending upwardly and over the jaw of the vise. Clamping screws 19 extend through the ears to engage the sides of the vise jaws, and may be locked in fixed position as by the lock nut 20.

In order to hold the rod in position while the jaws are being closed, and prior to being engaged by the projection 14, the section 12 may be provided with a seat which will also permit a lateral manual bending of the rod, after the jaws are closed and the rod clamped between them, without danger of moving the rod from clamped position. Such a seat may comprise a pair of spaced lugs 22 at one end of the web 16 and a rounded groove 23 at the opposite end of the web. It will be clear that when a rod, such as is shown in Fig. 2, is being bent, the straight length may be seated between the lugs 22 and in the groove 23, which will hold the rod and prevent lateral displacement of the same while the jaws are being brought together and as the rod is being engaged by the end of the projection 14. It will be observed that the end of the projection 14 is formed with a rounded groove 24 which will prevent mutilation of the rod when the end of the projection reaches the inner end of the recess 15. Obviously, the seat in the web 16

of the complemental section serves a similar function by preventing cutting of the rod by the sharp end of the web 16 at the groove 23 when the vise jaws are closed.

In Fig. 2 there is shown a short length of rod which has been bent at 26 by the device above described. The bend 27 is produced by grasping, with the hand or a suitable gripping tool, the free length of the rod while the rod is clamped between the jaws and moving the free end in a lateral direction.

It should be understood that the illustrated and described construction may be readily modified without departing from the scope of the invention, which is more definitely defined in the following claims.

I claim:

1. A detachable bending attachment for a vise comprising a pair of complemental sections, means on each section whereby the section may be secured to the jaw of a vise, a projection on one of said sections, and the other section having a recess adapted to receive said projection when the jaws of a vise are moved together, said recess being adapted to receive a portion of an article bent thereinto by said projection.

2. A detachable bending attachment for a vise comprising a pair of complemental sections, means on each section whereby the section may be secured to the jaw of a vise, a projection on one of said sections, and the other section having a recess adapted to receive said projection when the jaws of a vise are moved together, said projection and said recess being of substantially the same shape, and said recess being adapted to receive a portion of an article bent thereinto by said projection.

3. A detachable bending attachment for a vise comprising a pair of complemental sections, means on each section whereby the section may be secured to the jaw of a vise, a projection on one of said sections, and the other section having a recess adapted to receive said projection when the jaws of a vise are moved together, and one of said sections having in its face a seat to receive the article to be bent.

4. A detachable bending attachment for a vise comprising a pair of complemental sections, means on each section whereby the section may be secured to the jaw of a vise, a projection on one of said sections, and the other section having a recess adapted to receive said projection when the jaws of a vise are moved together, and one of said sections being provided on its face with a pair of spaced lugs adapted to seat between them the article to be bent.

5. A detachable bending attachment for a vise comprising a pair of complemental sections, means upon each section for clamping the same to the jaw of a vise, and a projection upon one section, the other section being formed with a recess of substantially the same shape as the said projection and adapted to receive the projection when the projection forces into said recess and bends a portion of an article.

In testimony whereof I have hereunto set my hand.

JOHN B. OUELLETTE.