April 10, 1956 S. BAHORIK 2,741,145

ADJUSTABLE VISE EXTENSION

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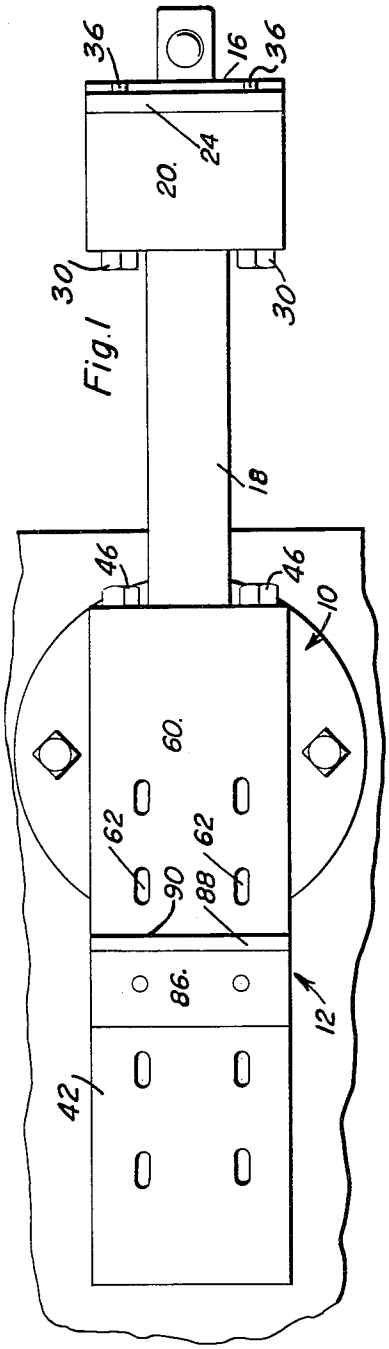


Fig. 1

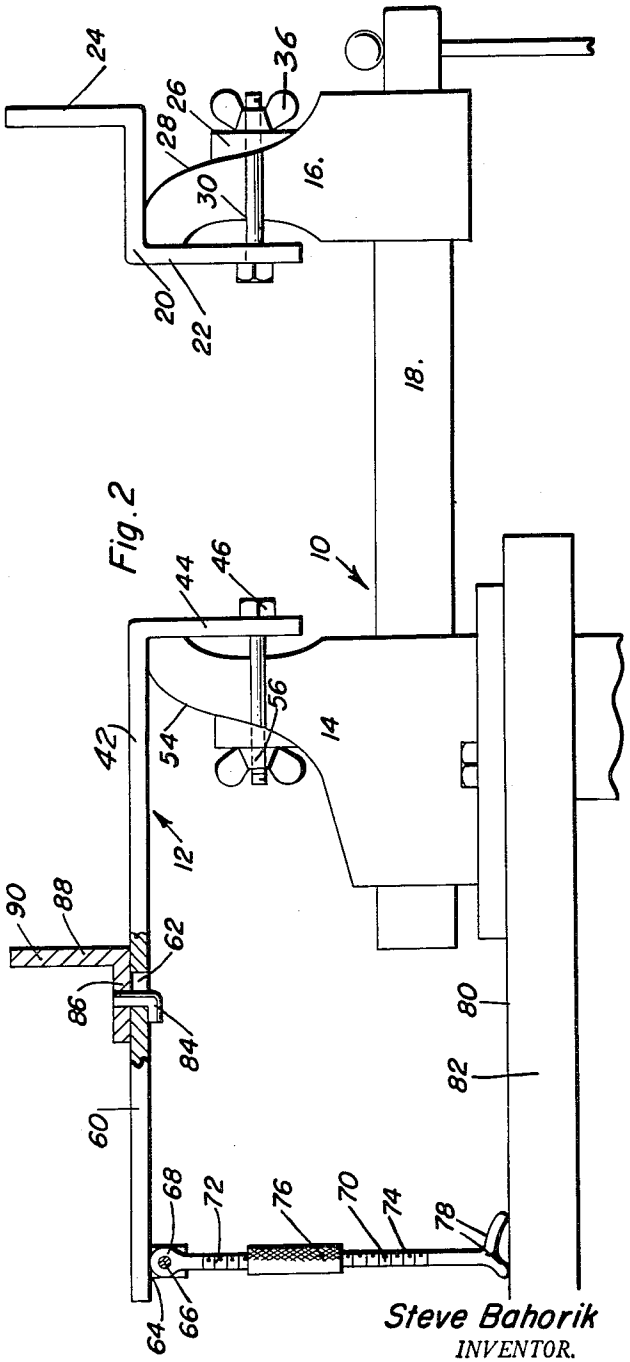


Fig. 2

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Fig. 4

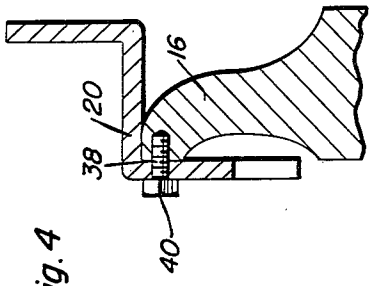


Fig. 3

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ADJUSTABLE VISE EXTENSION

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Application November 10, 1954, Serial No. 467,983

3 Claims. (Cl. 81—38)

This invention relates to the class of tools and more particularly to a novel adjustable vise extension.

The primary object of the present invention resides in the provision of an adjustable vise extension for attachment to a conventional vise having opposed jaws so that articles of considerably larger sizes or different shapes may be easily gripped thereby, one of the components of the vise extension having a pivotal and vertically adjustable support.

Still further objects and features of this invention reside in the provision of an adjustable vise extension that is strong and durable, simple in construction and installation, which can be readily utilized with various existing types of vises, yet which is inexpensive to construct, thereby permitting wide distribution and utilization.

These, together with the various ancillary objects and features of the invention which will become apparent as the following description proceeds, are attained by this adjustable vise extension, a preferred embodiment of which has been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a plan view of the adjustable vise extension as shown installed on a vise;

Figure 2 is a side elevation of the invention with parts thereof being broken away and shown in section in order to show the connection between the article-engaging member which is adjustably mounted on the horizontal plate;

Figure 3 is an exploded perspective view of portions of the invention; and

Figure 4 is a sectional detail view illustrating an alternative manner in which one of the extension members can be secured to the jaw of the vise.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral **10** generally designates a vise on which the adjustable vise extension indicated at **12** is adapted to be mounted. The vise **10** includes a fixed jaw **14** and a movable jaw **16**, and a conventional screw and housing, as at **18**, or other suitable means for adjusting the space between the jaws **14** and **16**. When it is desired to grip articles of larger size than the space between the jaws **14** and **16**, the vise extension **12** is installed on the jaws **14** and **16**.

The vise extension **12** includes a substantially Z-shaped extension member **20** which includes a plate **22** overlying the face of the jaw **16** and includes an article-engaging flange forming a first jaw extension **24** which is horizontally offset from the plate **22**. By means of a block **26** configurated to conform to an outer surface **28** of the jaw **16**, the Z-shaped extension member **20** is secured on the jaw **16** by bolts **30** which extend through downwardly diverging apertures **32** in the plate **22** and through aligned apertures **34** in the block **26**. Suitable wing nuts, as at **36**, may be utilized to hold the bolts **30** in position against outer side walls of the jaw **16**.

As is shown in Figure 4, the extension member **20** can be secured to the movable jaw **16** if suitable threaded apertures **38**, as are generally provided in the jaws **16**,

are present. The threaded recesses **38** are conventionally provided for attaching a vise-jaw facing member, not shown, and bolts, as at **40**, may extend through slots, as at **41**, formed in the jaw extension member **20** to hold the jaw extension member **20** in position.

A second extension member **42** is provided and includes a downwardly projecting flange portion **44** for overlying the face of the jaw **14**. Suitable bolts **46** lie along outer side walls of the jaw **14** and extend through downwardly diverging slots **48** in the flange **44** and through aligned apertures **50** in a block **52** configurated to conform to the contours of an outer surface **54** of the jaw **14**, the bolts being secured by wing nuts **56**. These means lockingly hold the extension member **42** in position. Alternatively the extension **42** may be attached by bolts which may be inserted in slots **58** in the flange **44** and threaded into bores, not shown, which align with said slots and which are usually provided in the face of the jaw **14** for attaching conventional face plates.

The extension member **42** includes an elongated horizontal plate **60** having a plurality of rows of apertures **62** therein which are arranged in spaced relationship. Depending from the plate **60** are a pair of spaced ears **64** between which an eye **68** of an adjustable foot **70** is secured by a pin **66**. The adjustable foot **70** is formed of two sections **72** and **74** which are threadedly engaged within a threaded sleeve **76** so that the height of the foot **70** may be readily adjusted. The foot includes a plurality of outwardly extending toes **78** for providing a suitable means for engaging a surface **80** of a work table **82** or the like on which the vise **10** is mounted.

Removably received within the pairs of apertures in the rows of apertures **62** are L-shaped studs **84** which depend from a horizontal portion **86** of a substantially L-shaped article-engaging member **88** having a second jaw extension **90** extending vertically and being opposed to the first jaw extension **24**. By selective positioning of the article-engaging member **88**, the jaw extension can be adjusted for various sized articles and can hold these articles in a secure manner during the several operations which are performed on the articles or work pieces.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A vise extension for use in combination with a vise having a pair of relatively adjustable jaws including a stationary jaw and a movable jaw, comprising a first substantially Z-shaped extension member, means detachably securing said first extension member to said movable jaw, said first extension member including an upwardly extending flange forming a first extension jaw, a second extension member, means detachably securing said second extension member to said stationary jaw, said second stationary member including an elongated horizontal plate, and an L-shaped article-engaging member including a second extension jaw adjustably secured on said plate, and an adjustable foot pivotally attached to said plate at an end thereof for supporting said plate.

2. A vise extension for use in combination with a vise having a pair of relatively adjustable jaws including a stationary jaw and a movable jaw, comprising a first substantially Z-shaped extension member, means detachably securing said first extension member to said movable

jaw, said first extension member including an upwardly extending flange forming a first extension jaw, a second extension member, means detachably securing said second extension member to said stationary jaw, said second extension member including an elongated horizontal plate, and an L-shaped article-engaging member including a second extension jaw adjustably secured on said plate, said means securing said first extension member to said movable jaw comprising a securing block, said first extension member having openings therethrough, said movable jaw and said securing block having openings aligned with said openings in said first extension member, and bolts secured in selected pairs of said aligned openings.

3. A vise extension for use in combination with a vise having a pair of relatively adjustable jaws including a stationary jaw and a movable jaw, comprising a first substantially Z-shaped extension member, means detachably securing said first extension member to said movable jaw, said first extension member including an upwardly extending flange forming a first extension jaw, a second

extension member, means detachably securing said second extension member to said stationary jaw, said second extension member including an elongated horizontal plate, and an L-shaped article-engaging member including a second extension jaw adjustably secured on said plate, and an adjustable foot pivotally attached to said plate at an end thereof for supporting said plate, said means securing said first extension member to said movable jaw comprising a securing block, said first extension member having openings therethrough, said movable jaw and said securing block having openings aligned with said openings in said first extension member, and bolts secured in selected pairs of said aligned openings.

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