

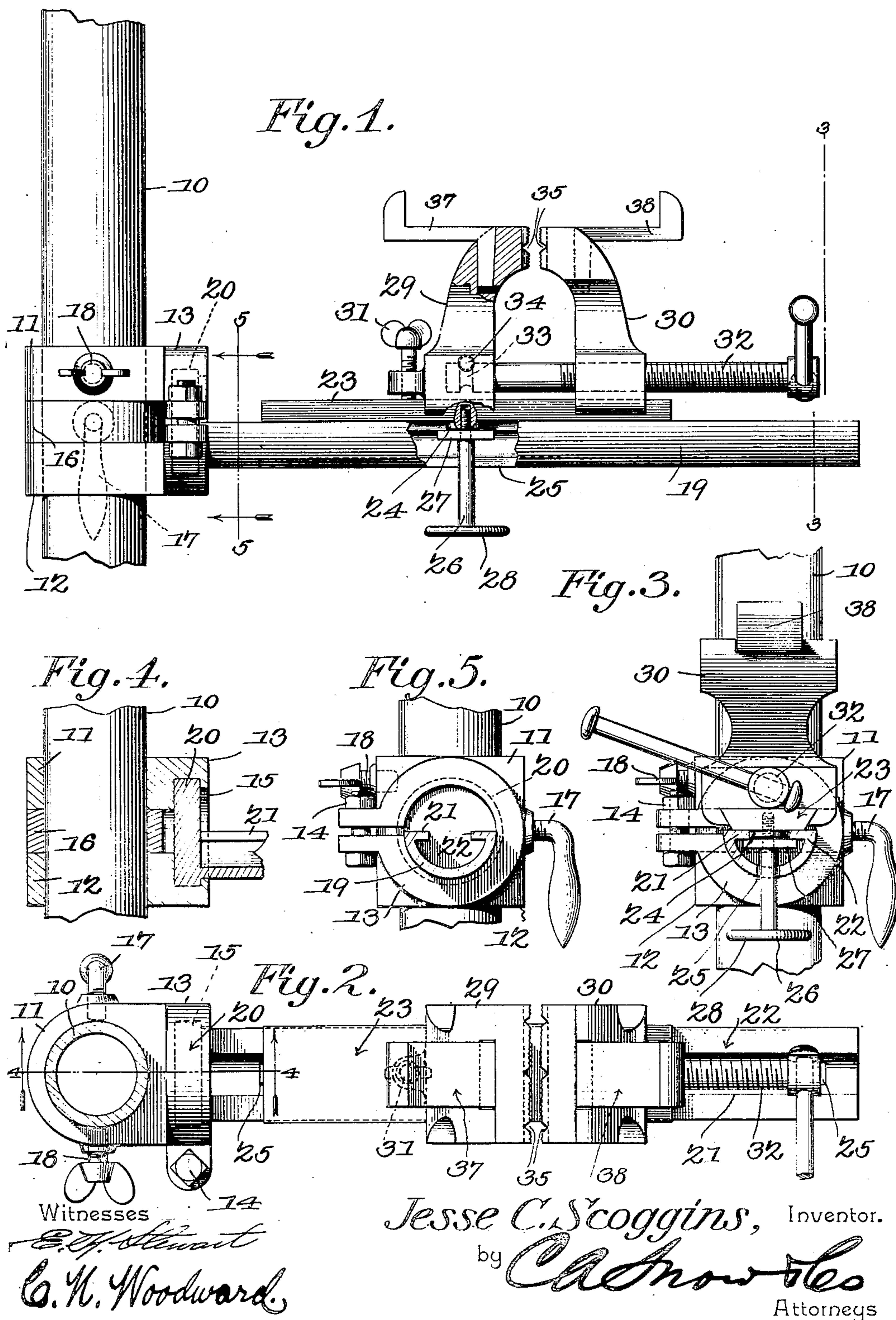
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J. C. SCOGGINS.

WORK HOLDER.

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UNITED STATES PATENT OFFICE.

JESSE C. SCOGGINS, OF ALVA, OKLAHOMA TERRITORY.

WORK-HOLDER.

No. 800,685.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JESSE C. SCOGGINS, a citizen of the United States, residing at Alva, in the county of Woods and Territory of Oklahoma, have invented a new and useful Work-Holder, of which the following is a specification.

This invention relates to vise attachments to drill-presses and similar machines, and has for its object to simplify and improve the construction and increase the efficiency and scope of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage may be resorted to without departing from the principle of the invention or sacrificing any of its advantages.

In the drawings, Figure 1 is a side elevation partially in section, and Fig. 2 is a plan view, of the improved device. Fig. 3 is an end elevation with the supporting-arm in section on the line 3 3 of Fig. 1. Fig. 4 is a sectional detail on the line 4 4 of Fig. 2. Fig. 5 is a transverse section on the line 5 5 of Fig. 1.

The improved device is designed more particularly for use in connection with drill-presses and similar machines, but may be employed in connection with other machines, if required, and I do not, therefore, wish to be limited in any manner to any specific machine with which the device is to be associated.

The stocks or columns of drill-presses are usually tubular in form, and for the purpose of illustration the device is shown applied to a portion 10 of such a column; but as the drill-press or other machine forms no part of the present invention it is not further illustrated.

The improved device comprises a "head" portion formed of spaced collars 11 12 for encircling the supporting structure 10 and having an integral split collar 13, provided with a clamp-bolt 14 and also with an internal

socket 15. A stop-collar 16 encircles the supporting member 10 between the collars 11 12 and is provided with a set-screw 17 for bearing upon the member 10, the collar 11 also having a set-screw 18 for bearing upon the member 10. By this means the head portion may be adjusted vertically upon the member 10 by means of the stop-collar and coupled movably at any desired point thereon by tightening the set-screw 17, and the head portion may also be rotated upon the member 10 or coupled rigidly thereto by tightening the set-screw 18, as will be obvious.

Mounted for rotation in the socket 15 in the head portion of the device is an arm 19, semi-circular in cross-section exteriorly of the split collar and circular within the same and with a terminal flange 20 to engage the socket. By this means the arm may be rotated to any desired extent or rigidly coupled to the head portion by "setting up" the clamp-bolt 14, as will be obvious.

The arm 19 is hollow longitudinally and provided with inwardly-extending ribs 21 22, spaced apart and forming the guiding means for the vise portion of the device.

Bearing upon the arm 19 is a plate 23, having "dovetailed" side edges and with a central bearing 24 depending between the ribs 21 22 and serving to guide the plate 23 longitudinally of the arm, while at the same time permitting it to rotate freely thereon.

The arm 19 is also provided with a longitudinal slot 25 through its lower rounded side, through which a rod 26 passes and is threaded at the inner end for operating in a threaded aperture in the bearing 24, and also provided with a shoulder supporting a clamp-washer 27 for bearing upon the under surfaces of the guide-ribs 21 22.

The rod 26 terminates at the lower end in a hand-wheel 28, and by rotating this hand-wheel in one direction the plate 23 will be tightly clamped to the arm and released therefrom when the rod is rotated in the opposite direction. Thus the plate may be adjusted longitudinally of the arm or rotated to any desired extent thereon and clamped rigidly in any position relative thereto.

Slidably disposed upon the plate 23 are two vise-jaws 29 30, the jaw 29 having a set-screw 31 for rigidly coupling to the plate, and also provided with a socket to receive the inner end of the operating-screw 32, the latter having an annular groove (indicated at 33) in which a transverse pin 34 bears, as indi-

cated in Fig. 1. The operating-screw is tapped through the other jaw member 30 and is provided with a transversely-sliding lever in its outer end. By this arrangement it will be obvious that the vise-jaws may be adjusted upon the plate 23 to any required position, and then the jaw 29 rigidly clamped thereon by means of the clamp-screw 31, and the other jaw 30 adjusted to any desired extent relative to the jaw 29 by rotating the operating-screw 32. The adjacent faces of the jaw will preferably be provided with grooves 35 to receive rods or pipes when the same are to be held between them to increase the "grip." The jaws 29 30 are also provided with sockets to receive supplemental clamping members 37 38 to extend the jaw members 29 30 when large bodies are to be held thereby.

It will thus be obvious that a simply-constructed, compact, strong, and durable device is produced capable of an extensive range of adjustments to adapt it to a variety of uses and to hold the work no matter what its shape or form and in any desired position.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a supporting-arm mounted for swinging movement, a retaining member mounted for longitudinal and pivotal movement upon said arm, a tool mounted for movement longitudinally of said retaining member, and clamping means for securing said parts in their adjusted positions.

2. In a device of the class described, a supporting-arm having a longitudinal guideway, a retaining member having a depending bearing engaging said guideway and rotatively and longitudinally movable therein, a vise mounted for movement longitudinally of said retaining member, means for securing said retaining member against movement upon said arm, and means for coupling said vise from movement upon said retaining member.

3. In a device of the class described, a supporting-arm having longitudinal guideways, a retaining member having dovetailed sides and with a depending bearing for engaging said guideways and rotatively and longitudinally movable therein, a vise having dovetailed lugs slidably engaging said retaining member, means for coupling said retaining member

from movement upon said arm, and means for coupling said vise for movement upon said retaining member.

4. In a device of the class described, a supporting-arm having spaced longitudinal guideways upon one side and a longitudinal slot upon the opposite side, a retaining member having a depending bearing for engaging said guideway and rotatively and longitudinally movable therein, a rod extending through said slot and having a threaded terminal engaging a threaded aperture in said bearing and with a washer bearing beneath said guideways, a vise mounted for movement longitudinally of said retaining member, and means for coupling said vise from movement upon said retaining member.

5. In a device of the class described, a supporting member, a supporting-arm, means for adjusting said arm longitudinally of said supporting member, means for connecting said arm for vertical and transverse rotation relative to said supporting member, a retaining member for longitudinal and rotative movement upon said arm, means for securing said retaining member against movement upon said arm, a vise mounted for movement longitudinally upon said retaining member, and means for securing said vise against movement upon said retaining member.

6. In a device of the class described, a head member comprising spaced collars for encircling a supporting member and having an integral split ring provided with an internal socket, a supporting-arm having a bearing at one end for rotatively engaging said socket, means for clamping said split ring to hold said bearing from rotative movement therein, a retaining member for longitudinal and rotative movement upon said arm, a vise mounted for movement longitudinally of said retaining member, means for clamping said retaining member from movement relative to said arm and means for clamping said vise from movement relative to said retaining member.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JESSE C. SCOGGINS.

Witnesses:

J. D. KIDWELL,
S. J. JOHNSTON.