To all whom it may concern:

Be it known that we, THOMAS ROSCOE HIGHAM and JOSEPH SHAKESPEARE, both subjects of the King of Great Britain, and residents of New York City, in the county of New York and State of New York, have invented certain new and useful Improvements in Vises and Supports, of which the following is a specification.

This invention has for its object to provide a vise and support that can be easily and quickly attached to, and removed from, the running board of a motor-car, or other desired location; and which can be readily disassembled, and folded together in compact form, whereby it can be stored in a comparatively small space, or can be placed in the tool box, or other part of the motor car.

In the accompanying drawing showing one embodiment of our invention, Figure 1 is a side elevation. Fig. 2 is an end elevation; and Fig. 3 is a section of the line 2—2 of Fig. 1, showing a detail.

The vise is shown as comprising a frame formed of an upright 1, with a horizontal bar 2 extending therefrom, that has an upright 3 at the other end. The uprights 1 and 3 are shown rigidly connected by a bolt 4.

The uprights 1 and 3 have holes 6 and 7 respectively, in which turns a screw 5, that has a head 8 in which slides a handle 9, by which the screw is operated. At the upper end of the upright 1 is located the fixed jaw member 11. The movable jaw member 10 has its shank 12 provided with holes 13 and 14, through which former freely slides the bolt 4, and the latter hole 14 is threaded to engage the screw 5; whereby the jaw 10 is caused to approach toward and recede from the fixed jaw 11. If desired the rear upright 3 may have an anvil 16 located at its upper extremity, for convenient use in connection with the vise.

A suitable supporting frame for the vise, is shown as comprising a horizontal bar 19, having a bar 20 extending downward therefrom at one end, and the latter is shown as bolted to an upright bar 20, by a bolt 21.

The lower end of bar 20 has a foot 22, provided with a lug 23 in which is pivoted a bent clamp 24. In a threaded hole in the latter a screw 25 turns, operated by handle 26, whereby the clamp can secure the frame at this end to a running board 27, as shown. On the opposite end of the bar 18 is located a hinge 30 in which swings a depending bar 31. To the latter is secured a bar 32, by bolt 33; and the lower end of the bar 32 has a U-shaped portion 34, in the bottom member of which is a threaded hole in which turns a screw 35, operated by handle 36 to secure the bar 32 to the opposite side of the running board 27. The bars 31 and 32 are shown as provided with a series of registering holes 38 and 39 respectively; and the bars 19 and 20 are shown as similarly provided with a series of holes 40 and 41, whereby vertical adjustment of these bars is effected, to raise and lower the vise, by simply shifting the bolts 31 and 33, in the respective holes.

The horizontal bar 2 of the vise frame is preferably adjustable secured to the supports in any suitable manner, as by having bent bolts 43 and 42, as shown in Figs. 2 and 3. By this means the vise can be easily and quickly removed from the supporting frame.

To set up the device on the running board 27, the bent clamp portion 24 is swung out and the foot part 22 of the frame is placed on the running board 27, and then the clamp is swung downward and the screw 25 serves to lock this clamp to the running board. The swinging frame member 21—22, on the other side is swung outward so that the bent portion 34 can be put on the edge of the running board, and then the screw 35 turned to lock this clamp, and the supporting frame is now rigidly secured on the running board. Thenceupon the vise is placed on the top bar of the supporting frame, and secured thereto by the bent bolts 42 and 43; and the device is now ready for work. By this means it will be seen that the vise will be securely locked on the running board in convenient position for use, its jaws being elevated, preferably, above the floor of the car, by the adjustment of the vertical bars of the supporting frame.

When its use is completed, the vise is removed from the frame by loosening the bolts 42 and 43; and then the screws 25 and 35 are loosened, and the supporting frame is removed from the running board. If desired the supporting frame can be further disassembled by loosening the bolts 21 and 10, and the bar 31 swings up against the top bar 18. All these parts will now occupy but very small space, and can be conveniently stored in any desired place.

Having thus described our invention, what we claim is:

1. The combination of a vise, a support-
ing frame comprising a horizontal bar detachably secured to the vise and having a vertical depending member, and a clamp hinged to the depending member, and arranged to secure the device to a horizontal support, the horizontal bar having hinged thereto at the opposite end a depending bar carrying a clamp arranged to secure to the same horizontal support.

2. The combination of a vise, a supporting frame comprising a horizontal bar detachably secured to the vise and having a vertical depending member, a bar adjustably secured to the depending member, a clamp on the lower end of the bar arranged to secure to a horizontal support, the horizontal bar of the frame having hinged thereto at the opposite end a depending bar, and a bar adjustably secured to the latter bar and carrying a clamp at the end arranged to secure to the same horizontal support.

3. The combination of a vise, a supporting frame comprising a horizontal bar detachably secured to the vise and having a depending member, a bar adjustably secured to the depending member, a clamp pivoted on the lower end of the member arranged to secure to a horizontal support, the horizontal bar of the frame having hinged thereto at the opposite end a depending bar, and a bar adjustably secured to the latter bar and carrying a clamp at the end arranged to secure to the same horizontal support.

4. The combination of a vise comprising a horizontal bar having an upright piece at each end, one of the uprights forming one jaw of the vise, a screw turning in the uprights, a second jaw member having a threaded bore engaged by said screw, guiding means for the second jaw member whereby it is caused to approach and recede from the other jaw member, a supporting frame comprising a horizontal bar detachably secured to the horizontal bar of the vise and having a depending member, a bar adjustably secured to the depending member, a clamp pivoted on the lower end of the member and arranged to secure to a horizontal support, the said horizontal bar of the frame having hinged thereto at its opposite end a depending bar, a bar adjustably secured to the latter bar and carrying a clamp at its lower end arranged to secure to the same horizontal support.

5. The combination of a vise comprising a horizontal bar having an upright at each end, one of the uprights forming one jaw of the vise, a screw turning in the uprights, a second jaw member having a threaded bore engaged by said screw, a bolt rigidly connecting the uprights, the second jaw member having an aperture through which slides the bolt to guide the jaw member, a supporting frame secured to the vise, and clamping means on the lower part of the frame for securing the device removably to a horizontal support.

6. The combination of a vise comprising a horizontal bar having an upright at each end, one of the uprights forming one jaw of the vise, a screw turning in the uprights, a bolt rigidly connecting the uprights, a second jaw member having a threaded bore engaged by the said screw and having an aperture through which passes the bolt to guide the jaw member, a supporting frame removably secured to the vise, clamping means on the lower part of the frame, and means for vertically adjusting the frame.

7. The combination of a vise comprising a horizontal bar having an upright at each end, one of the uprights forming one jaw of the vise, a screw turning in the uprights, a bolt rigidly connecting the uprights, a second jaw member having a threaded bore engaged by said screw and having an aperture through which passes the bolt to guide the jaw member, a supporting frame comprising a horizontal bar detachably secured to the horizontal bar of the vise, and having a depending member, a clamp pivoted on the lower end of the member and arranged to secure to a horizontal support, the said horizontal bar of the frame having hinged thereto at its opposite end a depending bar, and a bar adjustably secured to the latter bar and carrying a clamp at its lower end arranged to secure to the same horizontal support.

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