

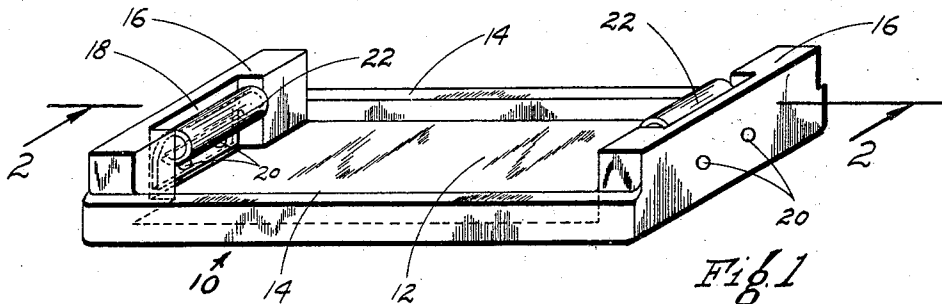
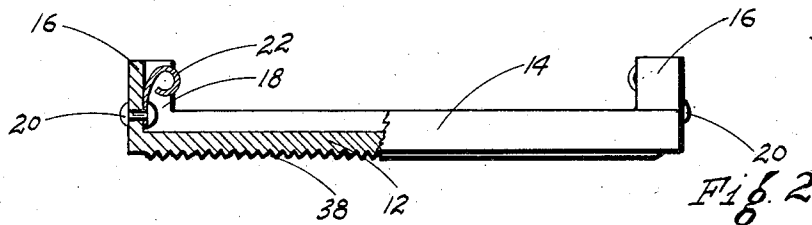
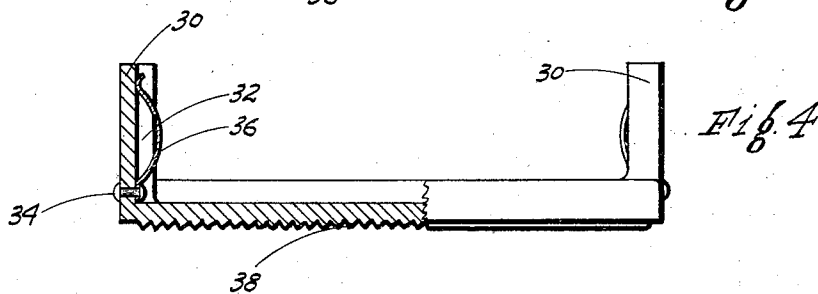
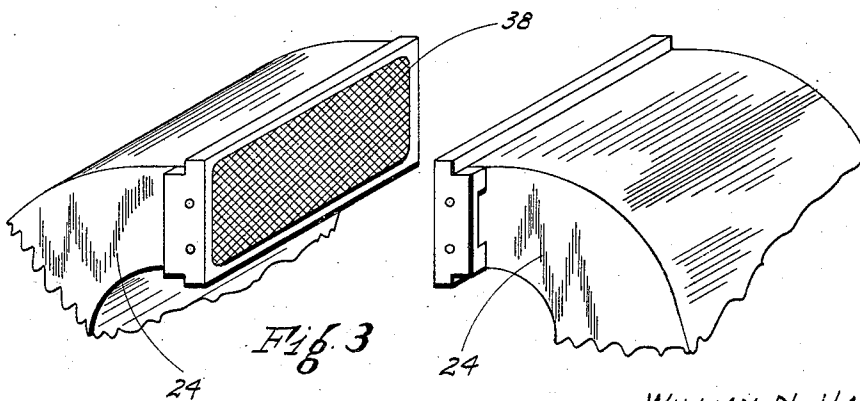
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REMOVABLE FACEPLATE FOR VISE JAWS

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REMOVABLE FACEPLATE FOR VISE JAWS

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This invention relates to vises and particularly to removable face plates therefor.

One of the objects of our invention is to provide a removable vise jaw face plate which can be easily and quickly adjusted on a vise of ordinary construction.

Another object is to provide a vise jaw face plate which is held in place by a simple and effective means.

Another object is to provide a removable face plate which is simple in construction and effective in use.

Other objects and advantages of the present invention will appear as the description proceeds.

Referring now to the drawings wherein like reference characters indicate like parts throughout the several views,

Fig. 1 is a perspective view of one embodiment of our invention;

Fig. 2 is a longitudinal cross-section of the same taken approximately on the line 2—2 of Fig. 1 and looking in the direction of the arrows;

Fig. 3 is a side elevation of part of a vise showing the vise jaw face plate of the present invention applied thereto; and

Fig. 4 is a view similar to Fig. 2 showing a modified form of the invention.

Referring now more in detail to the drawings the reference character 10 indicates the removable vise jaw face plate in its entirety. Ordinarily face plates of this character are made of relatively soft metal and are placed over the faces of vise jaws when it is desired to clamp an article therebetween which might be otherwise marred or scratched by the relatively hard jaws of the vise.

The removable vise jaw face plate of the present invention comprises a face portion 12, top and bottom marginal flanges 14 and side marginal flanges 16. The side flanges 16 are deeper than the top and bottom flanges 14, as shown, and are channeled on their inner faces at 18. Within these channels are secured, as by rivets 20, compression spring members 22. By referring to Fig. 2 it will be noted that portions of the springs protrude slightly from the channels 18 to extend inwardly beyond the inner faces of the side

flanges 16. These inwardly projecting portions of the springs bear against the side faces 24 of a vise jaw when the removable face plate is adjusted thereon. The inner dimensions of the removable face plate are made just slightly larger than the outside dimensions of the vise jaw so that when the former is adjusted on the latter the spring members will be depressed to lie almost wholly within the channels 18 and by virtue of the spring action of the springs 22 the face plate will be securely held on the jaw of the vise by means of the friction between the sides of the vise jaw and the springs 22.

In the modification of the device shown in Fig. 4 the side marginal flanges 30 are deeper than the corresponding marginal flanges 16 in the modification shown in Figs. 1 to 3 inclusive. These flanges are channeled on the inner faces at 32 and in these channels are secured, as by rivets 34, the curved spring members 36. The function and operation of these spring members are similar to those of the spring members 22.

The working face of the face plate in both modifications is knurled as shown at 38 to insure a better grip on articles which it is desired to hold in the vise. It is to be noted in both modifications of the device that the marginal flange on the face plate extends entirely around the face plate. One of the advantages of this construction is that when the face plate is adjusted on the jaw of a vise accidental displacement therefrom is prevented as when, for example, a slightly tapered or irregular object is being held between the jaws of the vise. In such instance, the face plates would be tilted somewhat and the friction between the vise jaw and face plate might be less than that between the face plates and the article being held so that when pressure were applied on the article in one direction or another as by filing the article, displacement of the face plates might occur if no provision were made to prevent the same. Another advantage of extending the marginal flange entirely around the face plate is that the entrance of extraneous material between the vise jaw and face plate is thereby prevented.

From the foregoing it will be clear that a removable face plate has been provided which can be quickly and easily adjusted to position, one which is effectively held in place under any working condition, one which is simple in construction, economic of manufacture and one which is effective in use.

Although preferred embodiments of the invention have been described, it is to be understood that modifications and variations may be resorted to without departing from the spirit thereof as defined by the subjoined claims.

What is claimed and desired to be secured by Letters Patent is:

1. A removable face plate for vise jaws comprising a work engaging face, a laterally projecting marginal flange extending around the periphery thereof and frictional means for holding said face plate in operative position on a vise jaw by use of compression springs mounted on the marginal ends of said face plate.

2. A removable face plate for vise jaws comprising a work engaging face, a laterally projecting marginal flange extending around the periphery thereof and spring means for holding said face plate in operative position on a vise jaw by use of compression springs mounted on the marginal ends of said face plate.

3. A removable face plate for vise jaws comprising a work engaging face, top, bottom and side marginal flanges projecting laterally therefrom and means for holding said face plate by use of compression springs mounted on the marginal ends of said face plate.

4. A removable face plate for vise jaws comprising a work engaging face, top, bottom and side marginal flanges projecting laterally therefrom and means on the inner side of said side flanges for holding said face plate by use of compression springs mounted on the marginal flanges of said face plate.

5. A removable face plate for vise jaws comprising a work engaging face, top, bottom and side marginal flanges projecting laterally therefrom, channels in the inner faces of said side flanges and means disposed within said channels for frictionally holding said face plate in operative position on a vise jaw.

6. A removable face plate for vise jaws comprising a work engaging face, top, bottom and side marginal flanges projecting laterally therefrom, channels in the inner faces of said side flanges and springs disposed within said channels for frictionally holding said face plate in operative position on a vise jaw.

7. The combination with a vise jaw of a removable face plate having a work engaging face, top, bottom and side marginal flanges projecting laterally therefrom, channels in the inner faces of said side flanges

and means disposed within said channels for frictionally holding said face plate by use of compression springs mounted on the marginal ends of said face plate in operative position on a vise jaw.

8. A removable face plate for vise jaws comprising a work engaging face, a laterally projecting marginal flange, recesses in said marginal flange in which compression springs are disposed, said face plate being held on the jaw of a vise by means of friction between the sides of the vise jaw and said springs.

9. A removable face plate for vise jaws comprising a work engaging face, a laterally projecting edge having recesses therein, compression members disposed in said recesses and having at least a portion protruding from said marginal edge when said face plate is demounted from said vise jaw, said compression members being depressed when said face plate is mounted on said vise jaw to lie almost wholly within said recesses, said plate being held thereon by friction between the sides of the vise jaw and the compression members.

In testimony whereof we hereunto affix our signatures May 11, 1930.

WM. N. HARDING.

ARNOLD H. KRUGMAN.