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TOOL

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This invention relates to improvements in tools and is directed more particularly to the provision of an economical and simple device for operatively holding a piece of paper such as sand-paper, blotting paper and the like.

It is the principal object of the invention to provide a tool which has a removable working part associated therewith in such a way that it may be easily and securely held in place for its operating function and as readily removed and replaced with another working part.

A further object of the invention is to provide a tool of this class which is not only inexpensive to manufacture but which may be conveniently manipulated to provide a maximum scraping, polishing or blotting surface.

Various other novel features and advantages of the invention will be more fully hereinafter referred to in connection with the following description of the preferred form thereof, in which description reference is had to the accompanying drawing, wherein:

Fig. 1 is a plan view of the tool of the invention;

Fig. 2 is an end elevational view of the tool shown in Fig. 1; and

Fig. 3 is an inverted plan view of parts of the tool of the invention.

Referring now to the drawing more in detail, the invention will be fully described.

A plate member 2 is provided and this is preferably formed of some substantially hard but slightly yieldable material such as sheet metal. This plate 2 consists of a substantially flat main body portion 4, opposite side portions 6 which are bent inwardly back upon the body 4 as shown, and flanges 8 which extend upwardly from the inner marginal edges of the portions 6.

According to the preferred form of the invention, the flanges 8 extend outwardly slightly in opposite directions as shown. This is for a purpose which will presently appear.

A clamping member 10 is provided and this also is preferably formed of a single piece of sheet metal which is slightly spring-like in nature. This member 10 has a central grip portion 12 which is preferably curved at its upper side as shown and has converging sides spaced apart to provide a slot 14 between their lower marginal edges.

Connecting plate portions 16 extend outwardly in opposite directions from the lower marginal edges of the sides of the grip 12 to downwardly depending flanges 18. These flanges 18 are formed to extend substantially complementary to

the flanges 8 of the plate 2 and to co-operate therewith for a clamping function which will presently be described.

Disposed adjacent the outer side of the plate member 2 is a working part 20 and this may consist of a sheet of abrasive material such as sand-paper, polishing material such as felt, or absorbent material such as blotting paper or the like. In any event, it is desirable that the working part 20 be formed of some foldable material.

That is to say, the main body 22 of the working part 20 is disposed flat against the outer side of the portion 4 of the plate and its side portions are bent inwardly and upwardly between the flanges 8 and 18 and has free end portions 24 extending over the upper marginal edges of the flanges 8 as shown.

It will now be noted that the clamping member 10 serves both a clamping and gripping function. That is to say, the member 10 is formed as stated of spring-like material and is provided with an intermediate slot 14 as shown. It is obvious that by urging the sides of the grip portion 12 towards one another and thus tending to close the slot 14, the flanges 18 would be automatically moved towards one another. It is to this end that I provide a cam lock device as shown in Fig. 3.

This cam lock device consists of a plate member 26 having a main body part 28 and a handle or operating member 30 extending therefrom. Eccentric slots 32 are provided in the part 28 as shown.

Rigidly associated with the grip 10 are lugs 34. Preferably one lug 34 is provided in each connecting portion 16 of the member 10 adjacent the slot 14. The lugs 34 extend through the slots 32 and by means of the member 30 the plate 26 may be moved into and out of locking position.

When in locking position, the lugs 34 are relatively close together so that the flanges 18 are pulled inwardly to clamp the member 20 against the flanges 8. When in unlocking position, the spring-like clamping member 10 allows the part 20 to be removed from its support 2. Thus a new part 20 may be folded about the support and clamped thereto.

It may be seen that the marginal edge portions of the part 20 are retained between the upstanding and downwardly depending flanges 8 and 18 respectively. That is to say, by urging the outer flanges 18 inwardly towards one another they are

caused to bear against the part 20 and urge the inner flanges 8 inwardly.

It is a further feature of this invention that the urging of the integral flanges 8 inwardly causes the plate portion 4 to become curved so that its outer surface is slightly convex. Thus, when the tool is operated, the pressure given by the operator to the central grip portion 12 tends to flatten the surface out so that the whole working surface of the part 20 is in contact with the surface being worked upon.

While I have described my invention in great detail and with respect to a preferred embodiment thereof, I do not desire to be limited to such detail or embodiment since many changes and modifications may be made without departing from the spirit and scope of the invention in its broader aspects. Hence, what I desire to claim as new and secure by Letters Patent of the United States is:

1. A tool of the class described comprising in combination, a supporting member including a plate portion and upstanding flanges spaced inwardly from opposite marginal edges thereof for a member of foldable material having a main body portion disposed adjacent said plate portion and opposite side portions extending over said flanges, and releasable means for clamping said foldable member to said supporting member including a central grip portion and outer downwardly extending flanges for lying adjacent the opposite side portions of said member outside said upstanding flanges.

2. A tool of the class described comprising in combination, a supporting member including a plate portion and upstanding flanges spaced inwardly from opposite marginal edges thereof for a member of foldable material having a main body portion disposed adjacent the outside of said plate portion and opposite side portions disposed adjacent the outside of said flanges, a clamping member of spring-like material for clamping said foldable member to said supporting member including a central grip portion and outer downwardly depending flanges for lying adjacent the outside of said side portions of the foldable member, and means for urging said downwardly depending flanges towards one another.

3. A tool of the class described comprising in combination, a supporting member including a plate portion and upstanding flanges at opposite marginal edges thereof, a spring-like clamping member including an intermediate grip portion and outer downwardly extending flanges disposed outside said upstanding flanges, and releasable means for urging said downwardly depending flanges inwardly towards one another.

4. A tool of the class described comprising in combination, a supporting member including a plate portion and upstanding flanges spaced inwardly from opposite marginal edges thereof, a spring-like clamping member including an intermediate grip portion and outer downwardly extending flanges disposed outside said upstanding flanges, and releasable means for urging said downwardly depending flanges inwardly towards one another, the said upstanding and downwardly depending flanges being angularly disposed complementally to one another.

5. A tool of the class described comprising in combination, a supporting member of sheet ma-

terial having a substantially flat plate portion and opposite marginal side portions bent inwardly upon themselves and then upwardly to provide upstanding flanges spaced inwardly from opposite marginal edges thereof, a grip member of spring-like sheet material including an intermediate curved portion having its opposite sides spaced apart to provide a slot therebetween and outer downwardly depending flanges for lying outside said upstanding flanges, lugs extending downwardly from said grip member at opposite sides of said slot, and a plate member associated with the under side of said grip member having eccentric openings therein through which said lugs extend whereby said downwardly depending flanges may be urged towards one another.

6. A holder for sheet abrasive material comprising in combination, a plate member and a clamp member, said members having coacting clamping parts at opposite marginal edges thereof for clamping therebetween the opposite marginal side edges of a sheet of material having a main body portion disposed on said plate member, and means urging said coacting parts into clamping relation.

7. A holder for sheet abrasive material and the like comprising in combination, a plate member and a clamp member, said members having coacting clamping portions at opposite sides thereof for clamping therebetween the opposite marginal side edges of a sheet of material having a main body portion thereof disposed on said plate member, and releasable means for urging said coacting clamping portions into clamping relation.

8. A holder for sheet abrasive material and the like comprising in combination, a plate member and a clamp member, said members having coacting clamping portions at opposite sides thereof for clamping therebetween the opposite marginal side edges of a sheet of material having a main body portion thereof disposed on said plate member, releasable means for urging said coacting clamping portions into clamping relation, and means urging said coacting clamping portions out of clamping relation when released by said urging means.

9. A holder for sheet abrasive material and the like comprising in combination, a pair of plate members each having co-operating clamping portions extending angularly at the opposite sides thereof to clamp therebetween the marginal side edges of a sheet of material having its main body portion disposed on the face of one of said plate members, the other of said plate members being formed intermediate its side edges to permit the clamping portions thereof to move towards and away from the clamping portions of the other member and means to move the clamping portions into engagement.

10. A holder for sheet abrasive material and the like comprising in combination, a supporting member having a substantially flat plate portion and upwardly extending clamping portions at opposite sides thereof, a clamp member of spring-like material provided intermediate its sides with a grip forming a loop and downwardly-extending clamping portions, the said loop permitting the clamping portions of the clamp member to move into clamping relation with the clamping portion of the supporting member, and means for moving said clamping portions of the clamp member.

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