July 2, 1940. R. JACKSON 2,206,255

TOOL HANDLE FASTENER

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Fig. 1.

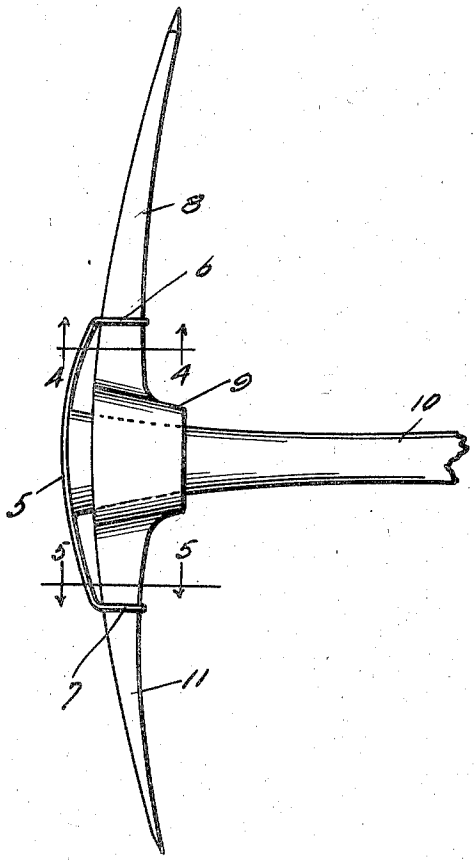


Fig. 2.

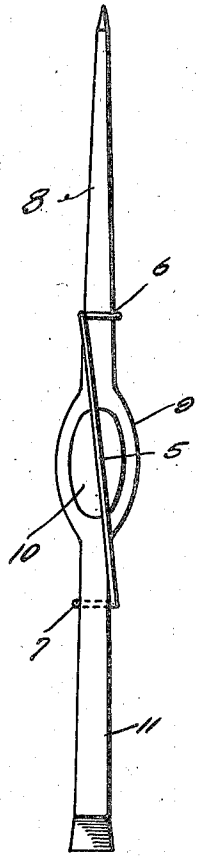
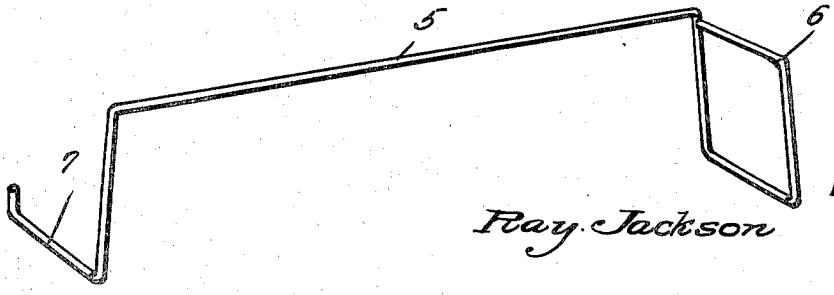


Fig. 3.



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Fig. 4.

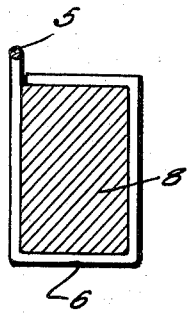


Fig. 5.

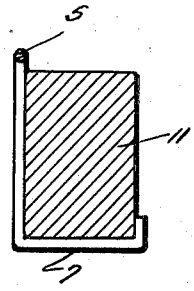


Fig. 8.

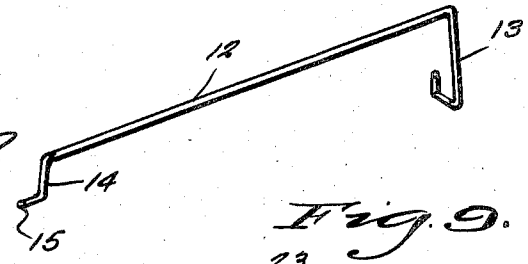


Fig. 6.

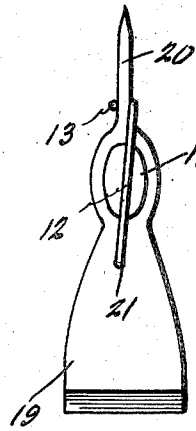


Fig. 7.

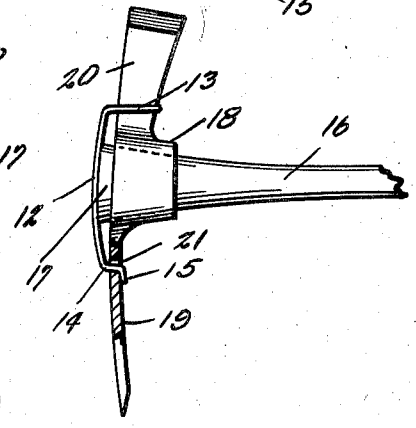
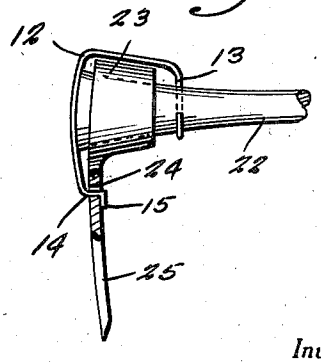


Fig. 9.



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TOOL HANDLE FASTENER

Ray Jackson, Rhinelander, Wis.

Application March 10, 1939, Serial No. 261,057

6 Claims. (Cl. 306—32)

This invention relates to means for securing a handle to a tool, particularly where the handle is provided with a wedge-shaped or tapered end portion such as is found in pick handles.

The object of the invention is to provide a fastener of this character which is extremely simple in construction and can be readily applied to the tool as and for the purpose specified.

The invention together with its objects and advantages will be best understood from a study of the following description taken in connection with the accompanying drawings wherein—

Figure 1 is a side elevational view illustrating the application of the invention to a pick handle.

Figure 2 is a front elevational view illustrating the invention as applied to a pick handle.

Figure 3 is a perspective view of the fastener.

Figures 4 and 5 are sectional views taken substantially on the lines 4—4 and 5—5 respectively of Fig. 1.

Figure 6 is a front elevational view illustrating the application of the invention to a mattock or similar hand tool.

Figure 7 is a side elevational view of the structure shown in Figure 6 with parts broken away and shown in section.

Figure 8 is a perspective view of the fastener illustrated in Figures 6, 7 and 9, and

Figure 9 is a view illustrating the application of the invention to a hoe, with certain parts of the hoe blade broken away and shown in section.

Referring more in detail to the drawings, and particularly to Figures 1 to 3 inclusive, it will be seen that the fastener, as provided particularly for application to a pick is formed from a single length of wire or other suitable material bent and shaped to provide a resilient shank 5 having integral therewith, and at one end thereof an angularly disposed eye or loop 6 that is substantially rectangular in cross section, and at the opposite end thereof an integral hook 7 the bill portion of which extends laterally in a direction opposite to the direction in which the loop 6 extends laterally from the shank.

In using the fastener the eye 6 is sleeved onto one blade 8 of the pick head 9 so that the shank 5 extends diagonally across the tapered end of the pick handle 10 flexing longitudinally as shown, and the hook 7 is then engaged with the other blade 11 of the pick head.

It will be readily appreciated that with the fastener so applied to the pick and engaging the blades of the pick head and the tapered end of the pick handle 10, will serve to prevent the pick head from loosening and working down on the handle 10, which latter is objectionable because of the injury often done to the hands of the person gripping the handle 10 when using the pick.

In the form of the invention shown in Figures 6 to 9 inclusive the fastener is also formed from a single length of wire bent to provide an elongated shank 12 that at one end has an integral angularly disposed hook 13, the bill of which hook extends at right angles and laterally to the plane of the shank 12. At the opposite end thereof the shank 12 is offset as at 14 and then continues longitudinally as at 15.

In Figures 6 and 7 I have shown the fastener (illustrated in Figure 8) as applied to a mattock or similar hand tool, and which latter includes a handle 16 which, like a pick handle, has a tapered end portion 17 that is received within the tapered bore of the socket or eye of the head 18 of the mattock, the latter also including a hoe blade 19 and a cutting blade 20. In applying the fastener to the mattock the hook 13 of the fastener is engaged with the cutting blade 20 and the shank extended diagonally over the tapered end 17 of the handle 16, while the offset 14 of the shank is passed rearwardly through an opening 21 provided therefor in the hoe blade 19, the terminal 15 at said offset end engaging against the rear face of the blade as clearly shown in Figure 7. Thus the shank portion 12 of the fastener is held under tension so that the fastener acts to maintain the head of the tool on the handle against slippage in substantially the same manner as the fastener shown in Figure 1 acts to retain the pick head on the handle 10 of the pick.

In applying the fastener shown in Figure 8 to a grub hoe or sloper as shown in Figure 9 the hook 13 of the fastener is engaged with the handle 22 of the tool behind the tool head 23. The shank 12 is then bent into substantially L-shaped form so as to extend diagonally across the free end of the tapered terminal of the handle 22 and the offset 14 then passed through the opening 24 provided therefor in the blade 25 of the grub hoe or sloper, with the terminal 15 engaging against the rear face of the blade 25 in substantially the same manner as shown and described with reference to the fastener as applied to the hoe shown in Figures 6 and 7.

Thus it will be seen that with the fastener applied, as shown in Figure 9, to the grub hoe or sloper the head of such tool will be maintained on the handle 22 against slippage.

It will also be appreciated that in accordance with the present invention, the fastener is so applied to the tool as to be maintained at all times under tension thus insuring constant proper engagement of the fastener with the proper parts of the tool and the efficient functioning of the fastener under practically any and all conditions.

It is thought that a clear understanding of the construction, utility and advantages of an invention of this character will be had without a more detailed description.

Having thus described the invention what is claimed as new is:

1. In a pick, a handle having an enlarged tapered end, a pick head embodying a tapered socket formed thereon and receiving the tapered end of the handle, and a fastener comprising a resilient shank member disposed diagonally across the tapered end of said handle at the extremity of the latter, said shank at one end thereof being provided with a laterally disposed loop sleeved on one blade of the pick, and at an opposite end thereof with a hook engaging the other blade of the pick.

2. A mattock including a handle having an enlarged tapered end, a tool head having a tapered socket formed thereon and receiving the tapered end of said handle, a cutting blade extending from one side of the socket and a hoe blade extending from the opposite side of the socket, and a fastener comprising a resilient shank disposed diagonally across the tapered end of said handle and provided at one end with a hook engaging the cutting blade, and at an opposite end thereof with an offset engaging an aperture provided therefor in the hoe blade of the mattock.

3. A grub hoe including a handle having an enlarged tapered end, and a blade embodying a head having a tapered socket formed thereon and receiving the tapered end of said handle, and a fastener comprising a resilient shank bent into substantial L form with one arm of the shank extending longitudinally above the head of said blade and the second arm of said shank extending diagonally across the enlarged end of said handle, said fastener at the terminal of the first-named arm of said shank being provided with a hook engaging said handle, and at the free end of the second-named arm of said shank having an angular terminal engaging in an aperture in said blade, as and for the purpose specified.

4. In a tool comprising a handle member and a head member, a fastener for holding the head member to the handle member comprising an elongated rod-like member of flexible metal having an intermediate portion passing across the rear end of the handle member and hook portions at the ends of the rod-like member, one of which detachably engages a part of the head member and the other of which detachably engages a part of one of the members of the tool.

5. A device for holding the head of a tool on the handle of a tool comprising an elongated rod-like member formed of spring metal, one end of said rod-like member being bent at right angles and then bent again at right angles to provide an L-shaped part at one end of the rod-like member with the free end of the L-shaped member bent to provide a hook and the other end of the rod-like member being bent to provide a closed loop which extends in an opposite direction from the free limb of the L-shaped part.

6. In a tool comprising a handle member and a head member having an eye part for receiving an end of the handle member with a part extending from the eye part, a fastener for holding the handle member in the eye part of the head member comprising an elongated rod-like member of flexible metal having an intermediate portion passing across the rear end of the handle member and a part extending over a portion of that part of the head member which projects from the eye part, said rod-like member having a bent end for detachably engaging a portion of that part of the head member which extends from the eye part and the other end of the rod-like member having a bent portion for detachably engaging a part of one of the members of the tool.

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