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[54] **NAIL PULLER FOR CLAW HAMMER**

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[52] **U.S. Cl.** **254/26**

[51] **Int. Cl.** **B66f 15/00**

[58] **Field of Search** 254/25, 26, 21, 22

[56] **References Cited**

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[57] **ABSTRACT**

A conventional claw hammer is fitted with a pivoted link intermediate the hand-held end of the handle and the head which defines the conventional claw. This link includes a lower portion which defines an auxiliary claw so located as to be conveniently used to withdraw a nail from a plank once the purchase of the conventional claw has been exhausted by the user. A spring urges the link and auxiliary claw against the handle in a stowed configuration but the link is free to pivot against the bias of the spring when the device is used to withdraw a particularly long nail.

4 Claims, 4 Drawing Figures

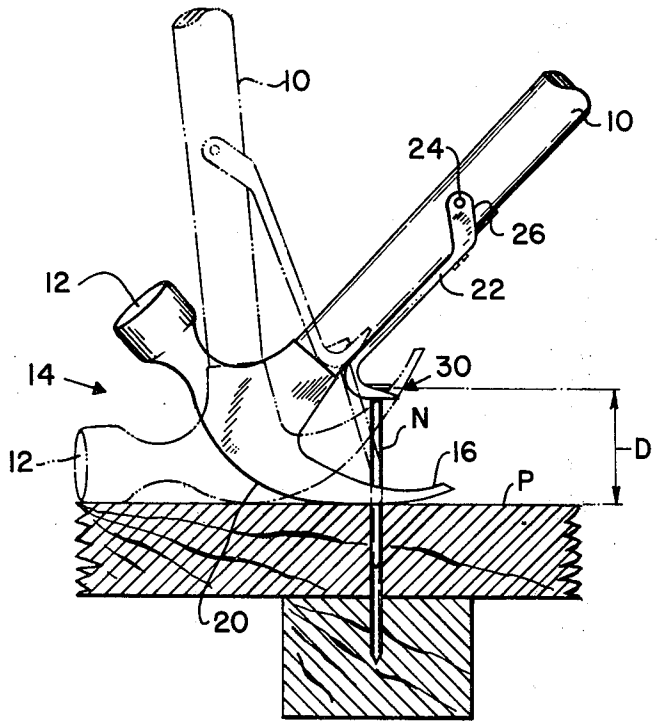
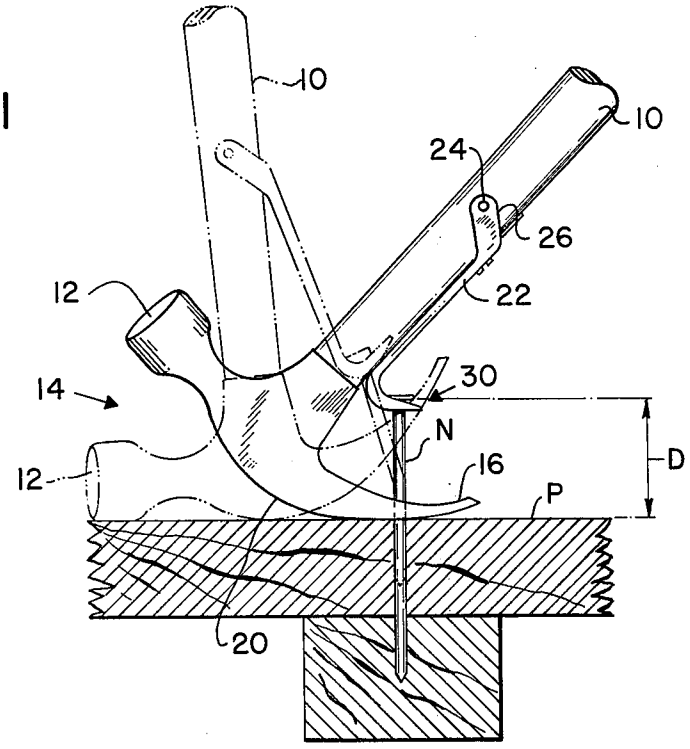


FIG. 1



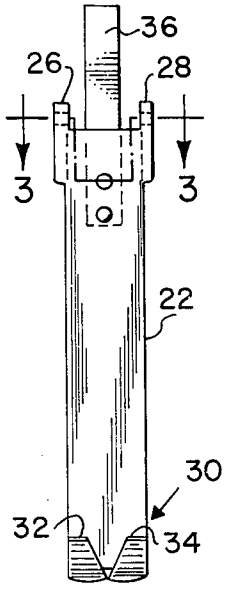


FIG. 2

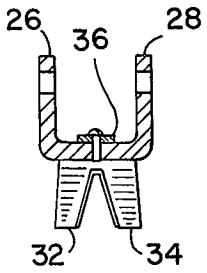


FIG. 3

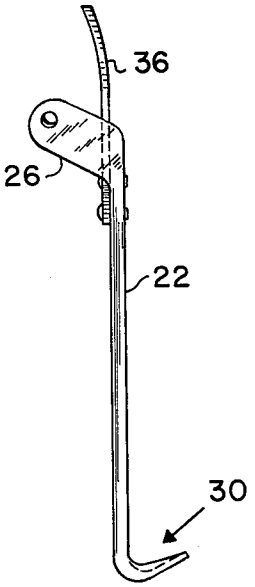


FIG. 4

NAIL PULLER FOR CLAW HAMMER

This invention relates generally to improvements for claw hammers or the like, and deals more particularly with an attachment adapted to be conveniently mounted to the handle portion of such a hammer in order to permit use of the resulting claw hammer in withdrawing relatively long nails or spikes without bending such spike, or in the alternative without searching for some convenient means for raising the effective fulcrum at which the conventional claw hammer pivots, as for example by searching for a scrap piece of wood or the like.

Basically, the present invention resides in a conventional claw hammer, which hammer includes a handle and a head fitted to one end of the handle, which heads includes a conventional nail driving anvil portion, and which also includes a conventional nail pulling claw portion and associated convex fulcrum surface. In accordance with the present invention a link is pivotally connected to the handle in spaced relationship to the head, and generally intermediate the free end of the handle and said head associated end. A pair of auxiliary claws project from the end of said link opposite the pivoted end, and said auxiliary claws are spaced above the claws provided in the head portion of the hammer at least when the link is in a normal position stowed alongside the handle. As so constructed and arranged these auxiliary claws can be used, in conjunction with the same fulcrum used for the conventional claws on the hammer head, so as to withdraw a particularly long spike or nail from a plank. More particularly, the conventional claws would be used to withdraw the spike a conventient distance above the surface of the plank, after which the head of the nail would be placed between the auxiliary claws on the link so that the handle of the hammer can be moved in a conventional fashion with the result that the link pivots away from the handle as the nail is further withdrawn from the plank.

Of the drawings:

FIG. 1 is a side view of a conventional claw hammer with a device according to the present invention provided on the handle thereof. the device shown in phantom lines in a second position showing the device in an alternative position to that depicted in solid lines in this view.

FIG. 2 is an elevational view of the device depicted on the claw hammer of FIG. 1.

FIG. 3 is a sectional view on line 3—3 of FIG. 2.

FIG. 4 is a side view of the FIG. 2 device.

Turning now to the drawings in greater detail, a conventional claw hammer is shown as including a wooden handle portion **10** one end of which is adapted to be held in the hand of the user so as to drive nails by means of an anvil portion **12** of a conventional forged head indicated generally at **14.** The head **14** also includes a nail pulling portion **16** which is preferably in the form of a pair of projecting claws defining a V-shaped notch therebetween so as to permit the claws to be conveniently inserted between the upper surface of a plank P and the underside of the head of a nail N in order to withdraw the nail from the plank. In following this movement the drawing shows that the nail will be removed generally vertically upwardly at least through the distance D, a distance of perhaps one and a half to one and three quarter inches. However, when a nail N is to be withdrawn which has a length exceeding this dimension D it will be apparent that withdrawing the nail by means of the conventional claw **16** will result in excessive bending of the nail unless one adopts some procedure for varying the height of the fulcrum defined by the convex surface **20** provided for this purpose in the head **14.** More particularly, a typical procedure will usually involve casting about for some suitable block of wood or the like to insert beneath the head of the hammer in order to increase the purchase provided by the conventional claw hammer. The present invention seeks to obviate this requirement for redefining the fulcrum point at which the conventional claw of the hammer adapted to operate.

Still with reference to the drawing, FIG. 1 also shows a link **22** mounted to the handle portion of the hammer **10** adjacent the upper end of said link **22** by means of a pivot pin **24.** More particularly, the link **22** has a bifurcated upper end portion which defines furcations **26** and **28** best shown in FIG. **2.** These furcations are adapted to receive the handle portion of a conventional claw hammer and they include aligned openings for receiving the opposed end portions of the pin **24.** The pin **24** thus passes through these aligned openings in the furcations **26** and **28** and is preferably riveted at either end to provide a convenient assembly of the link **22** with respect to the handle portion **10** of the conventional claw hammer.

The lower end of the link **22,** that is the free end portion opposite the pivoted end defines an auxiliary claw **30** located generally above the conventional claw **16** in the head **14** of the conventional claw hammer. The claw elements **32** and **34** comprising the auxiliary claw **30** define a V-shaped notch therebetween similar to that in the claw **16.** These elements **32** and **34** project outwardly form the link **22** in the same direction as the conventional claw **16,** and opposite that the furcations **26** and **28** at the opposite end of the link **22.** Thus, the auxiliary claw **30** is conveniently available for providing a second purchase on the partially withdrawn nail or spike N when the link **22** is in its normal or stowed position alongside the handle **10** as shown in FIG. **1** of the drawings.

It is a futher feature of the present invention that means is provided for holding the link **22** in its normal or stowed position alongside the handle, and preferably, said means comprises a short leaf spring **36** one end of which is riveted to the upper end of the link **22** and the other end of which extends upwardly beyond the pivot pin **24** so as to engage a portion of the handle **10** whereby the link **22** is urged into the solid line position shown. Thus, the leaf spring acts between the handle and the link and includes a free end portion extending upwardly generally between the furcations **26** and **28** to engage the handle at a point spaced above the pivot pin **24.** Additionally, the spring is carried by the link **22** so as to provide a convenient subassembly readily adapted for improving a conventional claw hammer. It will be apparent that as the handle **10** is moved from the solid line position shown toward the phantom line position of the drawing the leaf spring will deflect allowing the link **22** to move away from its normal or stowed position and hence allowing the nail N to be withdrawn from the plank generally vertically upwardly rather than laterally as would be the case without the auxiliary claw. This advantageous situation ob-

tains while utilizing the same generally convex fulcrum surface **20** normally provided at the end of the claw hammer.

I claim:

1. In a claw hammer which includes a handle and has a head provided at one end of the handle, which head has a nail driving anvil portion and also a nail pulling portion defined by projecting claws and a convex fulcrum surface, the improvement comprising:

a. a link one end of which is pivotally connected to the handle in spaced relation to said nail pulling portion,

b. auxiliary projecting claws at the opposite end of said link, said auxiliary claws being spaced above said claws in said head when said link is in a normal position alongside the handle,

c. means for normally biasing said link toward its normal position alongside the handle, and

d. said link being so arranged with respect to said handle and said fulcrum in said head that said link is pivoted away from the handle when said auxiliary claws are used to draw a nail.

2. The combination defined in claim **1** wherein said link is pivotally connected to the hammer handle by a pin provided in the handle, said one end of said link being bifurcated with the furcations spaced to receive the hammer handle and with openings to receive said pin.

3. The combination defined in claim **2** wherein said biasing means comprises a leaf spring acting between the handle and the link and including a free end portion extending upwardly between said furcations to engage the handle, said spring being carried by said link.

4. The combination defined in claim **3** wherein said auxiliary claws protrude outwardly above said claws in said head, and wherein said furcations protrude oppositely to receive the handle therebetween, said link being normally stowed alongside said handle by the action of said spring and readily available for use in said normal position as a result of said auxiliary claws being above the claws in the hammer head and protruding in the same direction from the handle.

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