J. D. McCABE.

HOE.

APPLICATION FILED OCT. 7, 1907.

900,871. Patented Oct. 13, 1908.

2 SHEETS—SHEET 1.

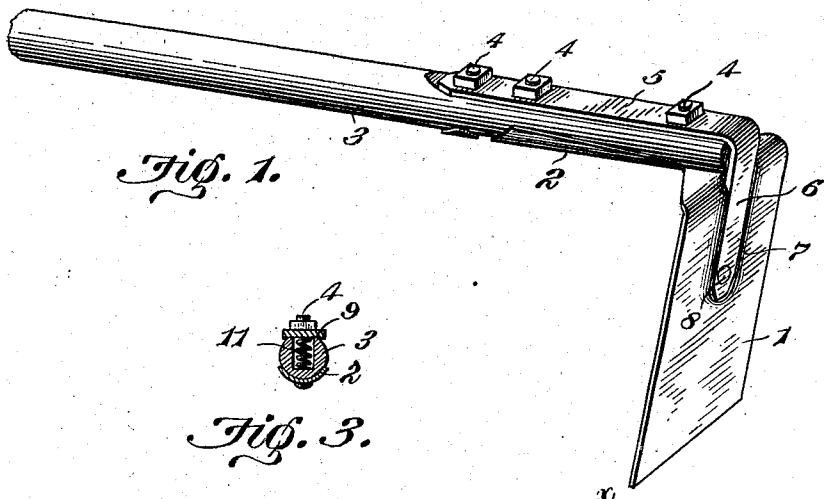


Fig. 1.

Fig. 3.

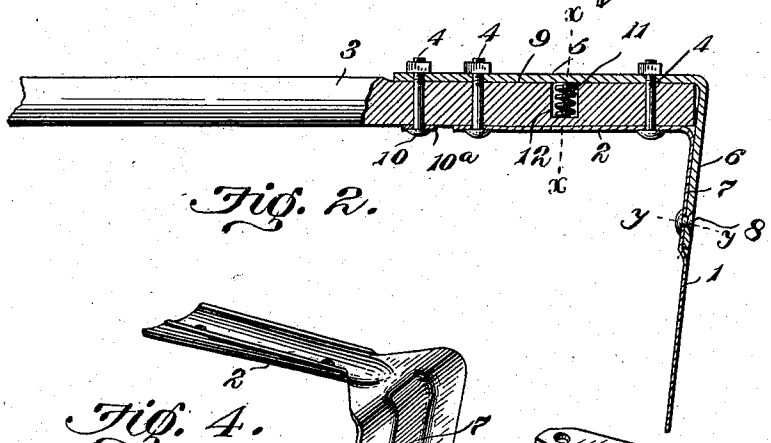


Fig. 2.

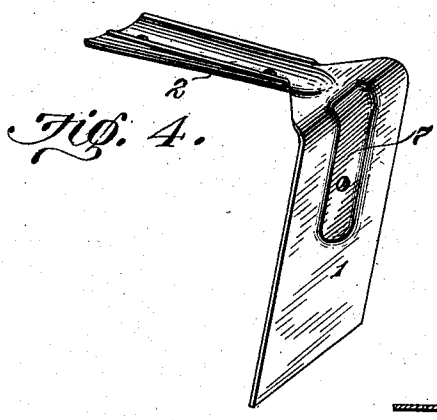


Fig. 4.

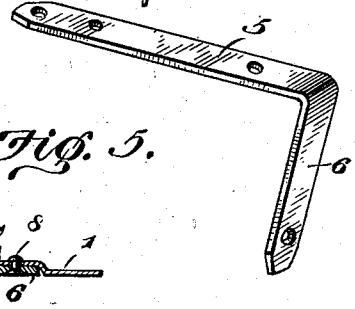


Fig. 5.



Fig. 6.

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2 SHEETS—SHEET 2.

Fig. 7.

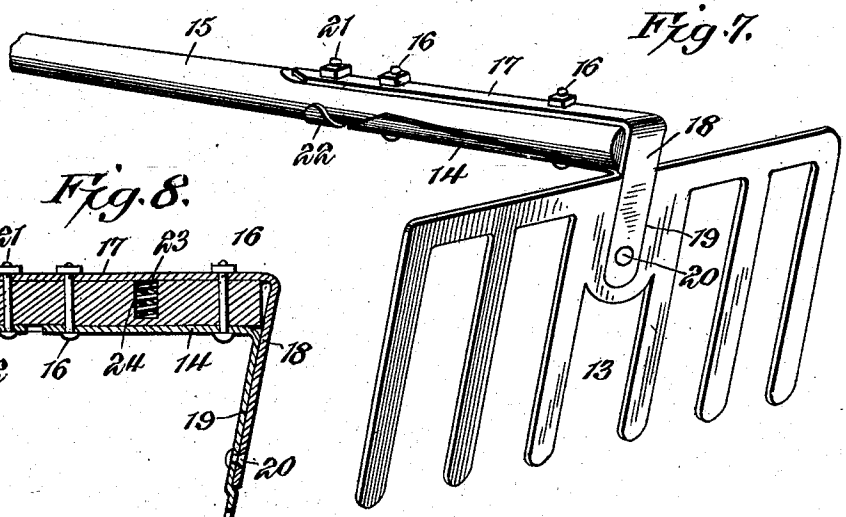


Fig. 8.

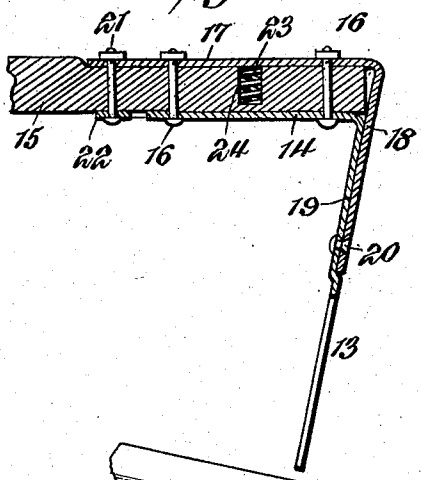


Fig. 9.

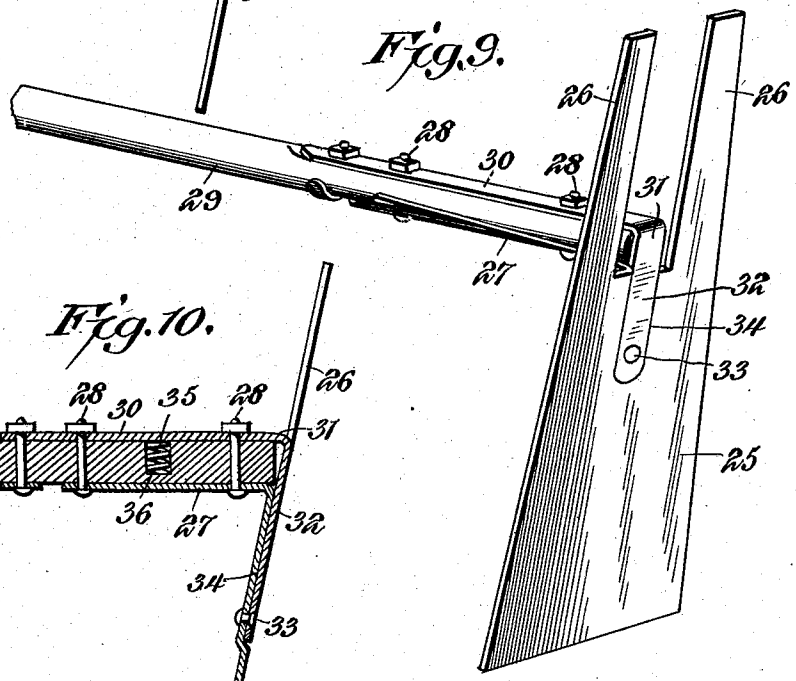


Fig. 10.

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HOE.

No. 900,871. Specification of Letters Patent. Patented Oct. 13, 1908.

Application filed October 7, 1907. Serial No. 396,246.

To all whom it may concern:

Be it known that I, JEFF D. McCABE, a citizen of the United States, residing at Kittrell, in the county of Rutherford and State of Tennessee, have invented a new and useful Hoe, of which the following is a specification.

The invention relates to improvements in hoes.

The object of the present invention is to improve the construction of hoes, and to increase the strength and durability of the same and to lessen their cost of construction.

A further object of the invention is to provide a hoe having means for securely and tightly attaching the blade to the handle, and for preventing the parts from becoming loose and rattling.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of a hoe, constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view on the line *x*—*x* of Fig. 2. Fig. 4 is a detail perspective view of the blade. Fig. 5 is a similar view of the L-shaped bar or member. Fig. 6 is a sectional view on the line *y*—*y* of Fig. 2. Fig. 7 is a perspective view of a slightly modified form of construction. Fig. 8 is a sectional view through the same. Fig. 9 is a perspective view showing another modification of the invention. Fig. 10 is a sectional view through such embodiment.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates a hoe blade, provided with an integral shank 2, curved in cross section to fit the front of a handle 3 and secured to the same by bolts 4, which also fasten a substantially L-shaped bar or member 5 to the handle. The hoe blade, which extends from one end of the handle, is arranged approximately at right angles to the same, as clearly shown in Figs. 1 and 3 of the drawings. The L-shaped bar or member consists of a body portion, extending along the back of the handle and a transverse arm 6, which extends across the outer end of the handle, and along the inner portion of the blade 1, to brace and support the same, as clearly illustrated in Fig. 2 of the drawing. The blade is provided at its outer face with a depression or groove 7 extending outwardly from the handle and terminating short of the outer end of the blade to receive the transverse arm 6 of the bar or member 5, and the said arm 6, which has its outer face substantially flush with the outer face of the adjacent portions of the blade, is secured to the same by means of a rivet 8, or other suitable fastening device. The rivet 8 has a head countersunk in the outer face of the arms 6, and the latter does not interfere with the free use of the blade, and it will not come in contact with stones or other objects, owing to the seat, formed by the groove 7.

The back of the handle is recessed to provide a flat face 9 to receive the body portion of the L-shaped bar or member, and the said body portion is extended inwardly along the handle to a point beyond the inner end of the shank 2, and its inner terminal is secured to the handle by a bolt 10, or other suitable fastening device. A washer 10^a, which is curved to fit the handle, is arranged at the front face of the same to receive the head of the bolt 10.

The bolts are provided at the back of the handle with nuts, and in order to prevent the parts from becoming loose and rattling, a coiled spring 11 engages the inner face of the body portion of the L-shaped bar or member. The spring is housed within a recess or socket 12 of the handle, and the tendency of the spring is to force the body portion of the bar or member outwardly against the nuts of the bolts, whereby the nuts will be prevented from accidentally unscrewing. The spring will also hold the parts tight and will prevent any noise or rattling.

The shank of the blade and the longitudinal portion of the bar or member constitutes a two-part eye for the handle, and enables the blade to be easily, quickly and securely fastened to the handle.

Although the improvements in the accompanying illustration are applied to a hoe, yet it will be apparent that they are equally

applicable to rakes and similar instruments, consisting of a head and a handle. For example, in Fig. 7, a rake 13 is illustrated, which has an integral shank 14 curved in cross section to fit the end of the handle 15 and secured to said handle by bolts 16. These bolts also constitute fastening means for one arm 17 of an L-shaped brace 18 that extends across the end of the handle, and is fitted in a depression or seat 19 formed in the rake, being secured thereto by a rivet or other fastener 20. A bolt 21, secures the terminal of the arm 17 to the handle, and has a curved washer 22 that bears against the under side of said handle. A coiled spring 23, located in a socket 24 in the handle, bears against the arm 17, and serves to prevent rattling between the parts.

A slightly different form of construction is illustrated in Figs. 9 and 10. In this embodiment of the invention, the hoe blade 25 is provided with upstanding tines 26, and the portion of metal struck from between the tines constitutes a shank 27 bolted, as shown at 28 to the handle 29. One arm 30 of the brace 31 is secured by said bolts 28 to the handle, while the other arm 32 is riveted, as shown at 33 in a seat 34 formed in the rear side of the blade. A spring 35, located in a socket 36 in the handle between the bolts 28, bears against the arm 30, and eliminates looseness between the parts with the consequent rattle, which would otherwise be due thereto.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. The combination of a handle having a socket, a tool head having a shank fitted against the front of the handle, a bar or member fitted against the back of the handle and having an arm extending across the end of the handle and projecting beyond the same to support the tool head, bolts piercing the handle, the shank, and the bar or member and having nuts arranged at the outer face of the latter, and expansible means compressed within the socket of the handle and engaging the bar or member for holding the same tightly against the nuts.

2. The combination of a handle having a socket, a tool head having a shank fitted against the front of the handle, a bar or member fitted against the back of the handle and having an arm extending across the end of the handle and projecting beyond the same to support the tool head, bolts piercing the handle, the shank and the bar or member and having nuts arranged at the outer face of the latter, and a spring arranged within the socket and engaging the bar or member for holding the same tightly against the nuts.

3. The combination of a handle, a blade arranged substantially at right angles to the handle and provided at its outer face with a groove or depression extending outwardly from the handle and terminating short of the outer end of the blade, said blade being also provided with a shank extending along the front of the handle, a substantially L-shaped bar or member composed of an inner longitudinal portion fitted against the back of the handle, and an arm extending across the end of the handle at substantially right angles to the same and projecting beyond the handle and seated in the groove or depression of the blade, and fastening means piercing the handle, the shank, and the bar or member and securing the same together.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JEFF D. McCABE.

Witnesses:
J. J. Northcott,
W. R. Colman.