April 6, 1954

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2,674,501

HANDLE CONNECTION FOR GARDEN HOES

Filed Oct. 9, 1951

Fig. 1

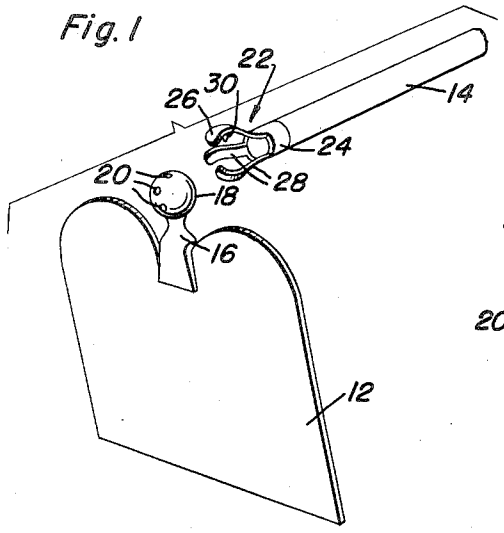


Fig. 2

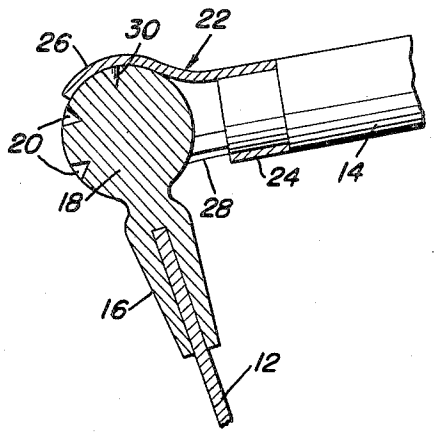


Fig. 3

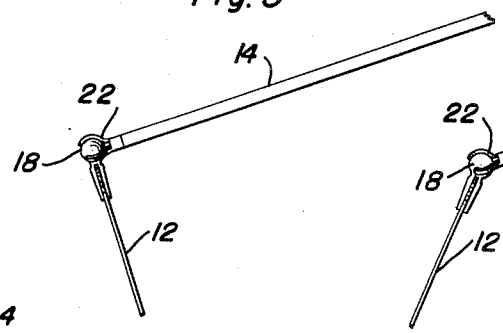


Fig. 4

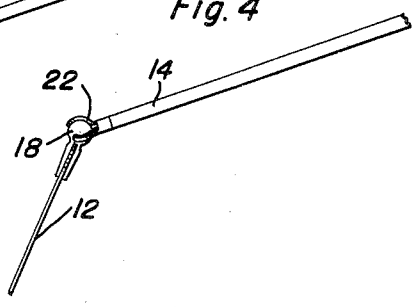
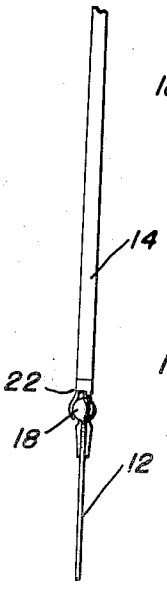


Fig. 5



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HANDLE CONNECTION FOR GARDEN HOES

John R. Biegler, Salinas, Calif.

Application October 9, 1951, Serial No. 250,527

1 Claim. (Cl. 306—7)

1

This invention relates to new and useful improvements and structural refinements in garden hoes, and the principal object of the invention is to facilitate angular adjustment of the hoe blade relative to the handle.

This object is achieved by the provision of adjusting means at the point of connection of the handle to the blade, an important feature of the invention residing in the provision of means for locking the adjusting means, whereby the blade may be sustained in any desired position relative to the handle until such time as a next adjustment is to be made.

Some of the advantages of the invention reside in its simplicity of construction, in its efficient and dependable operation, and in its adaptability to economical manufacture.

With the above more important objects and features in view and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a fragmentary group perspective view of the invention, namely, the handle, the blade and the connecting and locking means;

Figure 2 is a sectional detail of the connected blade and handle, and

Figures 3, 4 and 5 are side elevational views illustrating different relative positions of the blade to the handle of the hoe.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawing in detail, the invention is embodied in a garden hoe which is designated generally by the reference character 10 and comprises a blade 12 and a handle 14.

The upper edge portion of the blade 12 is provided at the center thereof with a shank 16 which is formed integrally with a spherical connector element 18, the latter being formed with a plurality of conical recesses 20 which are disposed in a row extending perpendicularly to the plane of the blade 12 as shown.

The aforementioned handle 14 is provided at one end thereof with an expansible socket 22 including a collar 24 which is affixed to the handle and is formed integrally with an upper resilient prong 26 and a pair of lateral, resilient prongs 28. These prongs frictionally embrace the spherical connector element 18 so that the handle 14 may be swung in a vertical plane relative to the blade 12. However, means are provided for locking the blade and handle in a predetermined relationship, these means comprising a conical detent 30 which is provided on the upper prong 26 and is receivable selectively in the recesses 20, whereby the hoe may be adjusted, insofar as the relationship of the handle and blade is

2

concerned, in any of the angular positions shown in Figures 3, 4 and 5 .

Needless to say, when an adjustment is to be made, the prong 26 is sprung away from the connector element 18 so as to disengage the detent 30 from the recesses, whereby unrestricted swinging movement of the handle relative to the blade is possible until the detent reenters one of the recesses, as desired.

It is believed that the advantages and use of the invention will be clearly understood from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

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

For use in conjunction with a garden hoe embodying a blade and a complemental handle, coupling means affording an adjustable connection between the handle and blade and comprising a connector unit adapted to be mounted on the upper edge of the stated blade, said connector being solid and spherical in form and provided in a predetermined surface with a row of aligned recesses circumferentially spaced and providing selectively usable keeper seats, and a complemental expansible and contractible socket unit connectible at one end with said handle, said socket unit embodying a plurality of resilient companion prongs conformably embracing said spherical connector and providing a ball and socket joint, there being three prongs and the latter being arranged so that two of them are diametrically opposite to each other, and the remaining prong being located midway between said two prongs and being provided on its interior surface with an integral locking detent and said detent being selectively engageable with said keeper seats in order that the socket unit and connector unit may be releasably coupled and thus joined together in predetermined adjusted positions, said connector unit embodying means whereby it may be rigidly secured to the aforemetnioned blade and said socket unit embodying a collar providing a ferrule for attachment to the stated handle.

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