

G. W. STEARNS.

Improvement in Hand Rakes.

No. 123,369.

Patented Feb. 6, 1872.

Fig. 1.

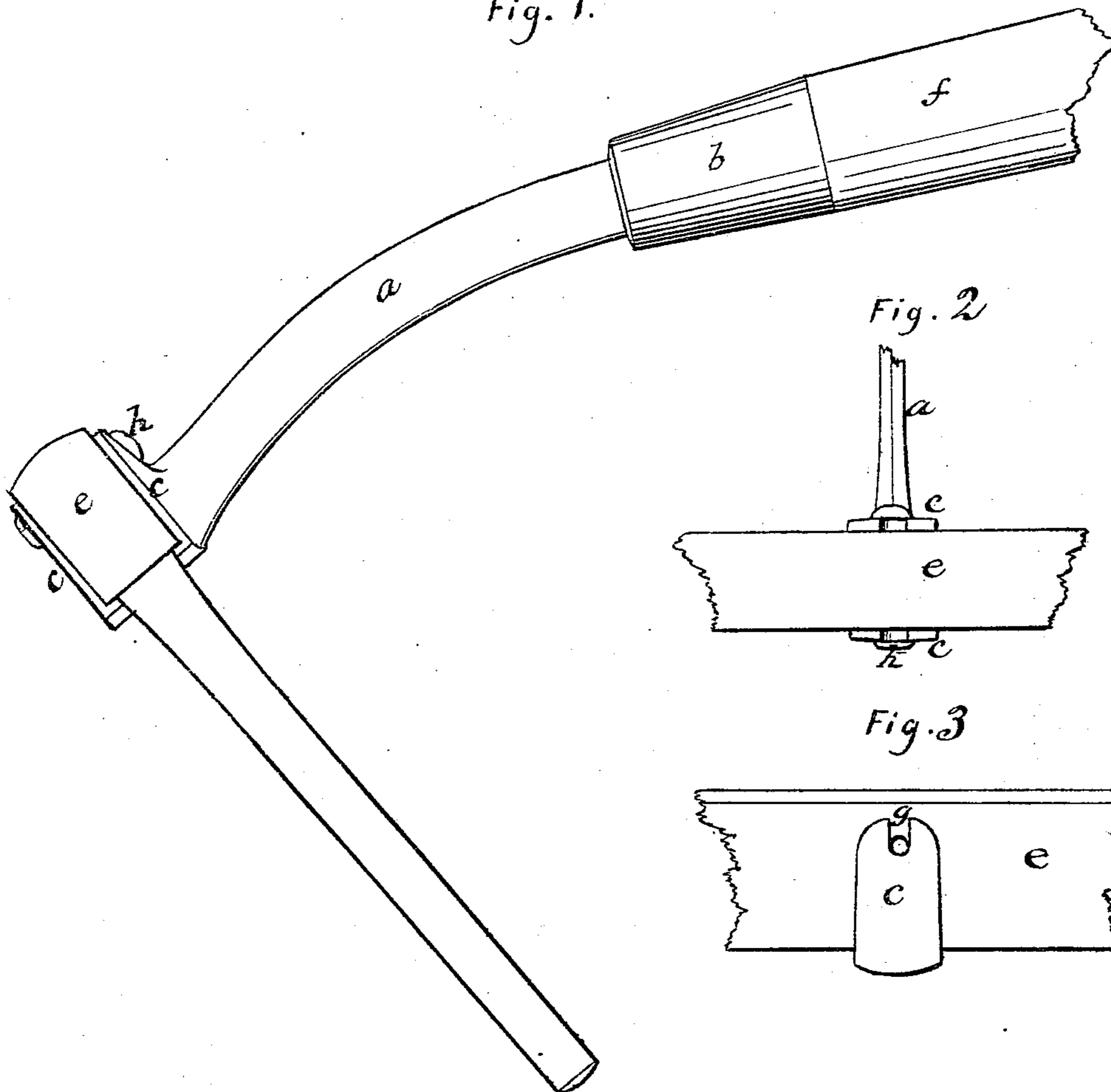


Fig. 2.

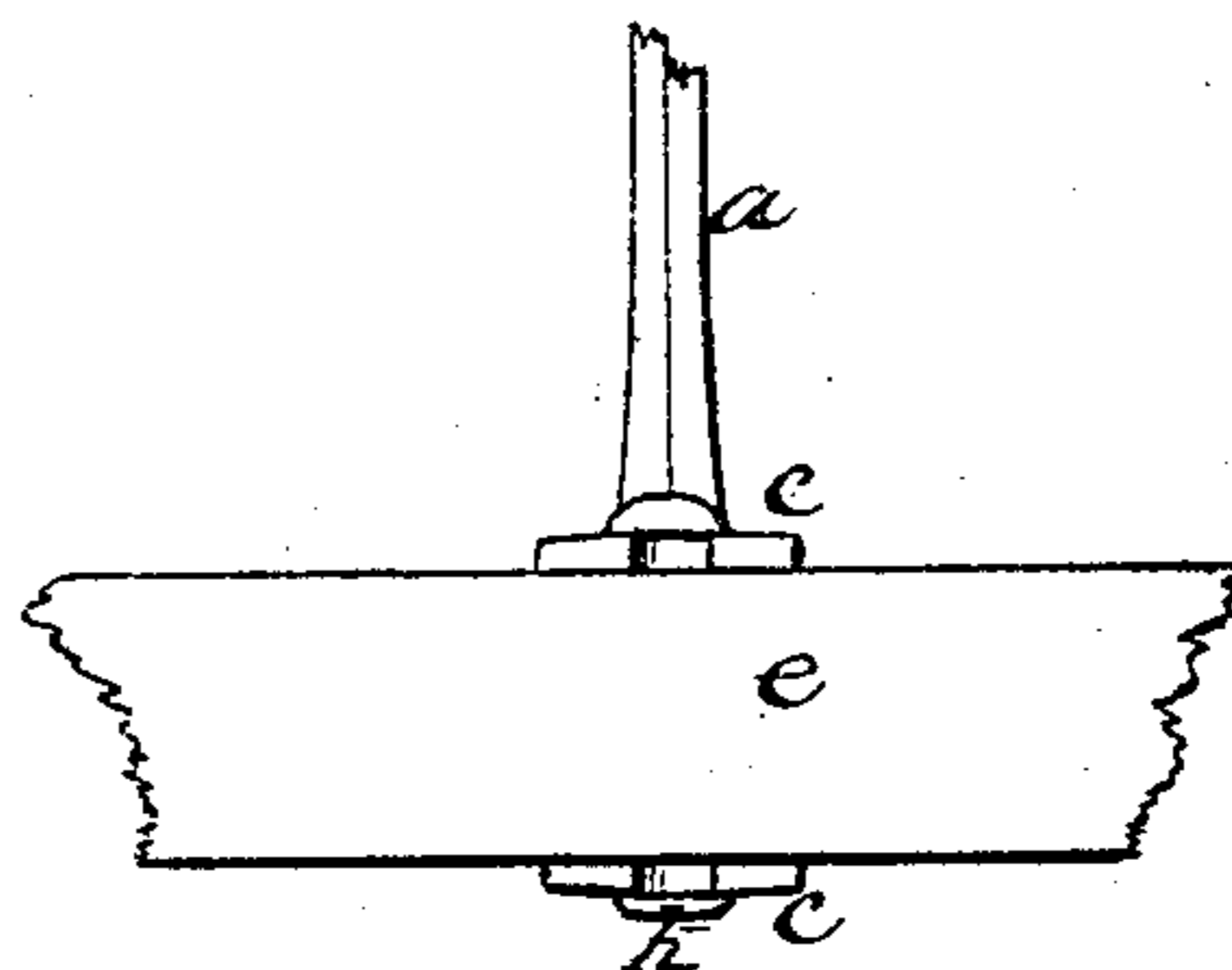
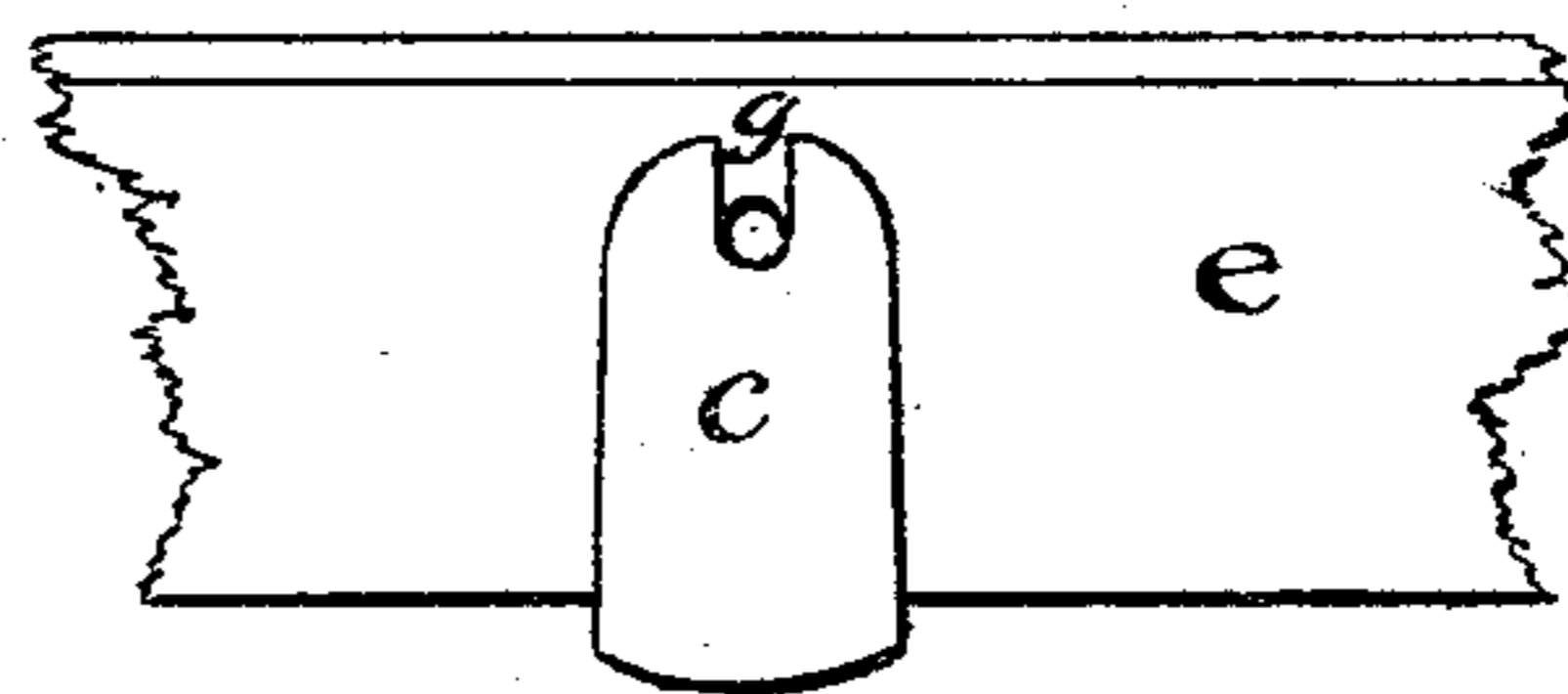


Fig. 3.



Witnesses.

Sydney E. Smith.  
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Inventor.

George W. Stearns

By his attorney

J. C. Robbins

# UNITED STATES PATENT OFFICE.

GEORGE W. STEARNS, OF LEBANON, NEW HAMPSHIRE, ASSIGNOR TO HIMSELF AND DAVID W. MARSTON, OF SAME PLACE.

## IMPROVEMENT IN HAND-RAKES.

Specification forming part of Letters Patent No. 123,369, dated February 6, 1872.

*To all whom it may concern:*

Be it known that I, GEORGE W. STEARNS, of Lebanon, in the county of Grafton and State of New Hampshire, have invented a new and improved metallic-attachment contrivance for effecting a firm combination of a wooden rake-head with its wooden handle and at the same time giving to said combination the proper degree of inclination of the rake-handle with the rake-teeth.

The following is a full and clear description of said invention, reference being had to the accompanying drawing which forms a portion of this specification, Figure 1 being a side view of a hay-rake whose head and handle are combined with each other by means of my said improved metallic-attachment contrivance; and Figs. 2 and 3 are views of sectional portions thereof.

Said attachment contrivance has a curved shank, *a*, which terminates at one end in a socket, *b*, for the reception of the rake-handle *f*, while the opposite end thereof terminates in a jaw-shaped head, *c c*, for the reception of the rake-head *e*. The socket *b* of said attachment contrivance is cast by the assistance of a core in the usual manner. The jaw-shaped head of said contrivance is molded and cast without the aid of a core; and to prevent the necessity and expense of drilling rivet-holes in the ears *c c* of said head slits *g* are cast opposite to each other in said ears, as shown in Fig. 3. A rake-head of proper size having been placed within the jaw-shaped head of my said attachment contrivance, either before or after the rivet-

hole has been formed in said rake-head, next receives the rivet *h*, whose ends project outwardly through the slits in the jaw-ears *c c*, and are of the proper length for the following operation of heading the same down upon the said jaw-ears. To insure a more perfect union between the jaw-shaped head of the attachment contrivance and the wooden rake-head, the outer angles of the slits *g* in the jaw-ears *c c* may be slightly reamed out at the bases of said slits. If preferred, the rivet *h* may be inserted in the rivet-hole in the rake-head before the said head is placed within the jaw-shaped head of the attachment contrivance, to be combined therewith. The rake-handle may be combined with the outer end of the shank *a* of the attachment contrivance by the aid of a socket or a flanged and pointed shank, or in any other manner that may be preferred.

I claim as my invention—

A new manufacture in the shape of an improved hay-rake whose head and handle are combined with each other by means of the within-described metallic-attachment contrivance, substantially as set forth.

In testimony that the foregoing is a full and clear specification of my new manufacture in the shape of a metallic contrivance for effecting a strong and perfect union between wooden rake-heads and their handles I hereunto subscribe my name.

GEORGE W. STEARNS.

Witnesses:

MILO L. STEARNS,  
ELIEL PECK.