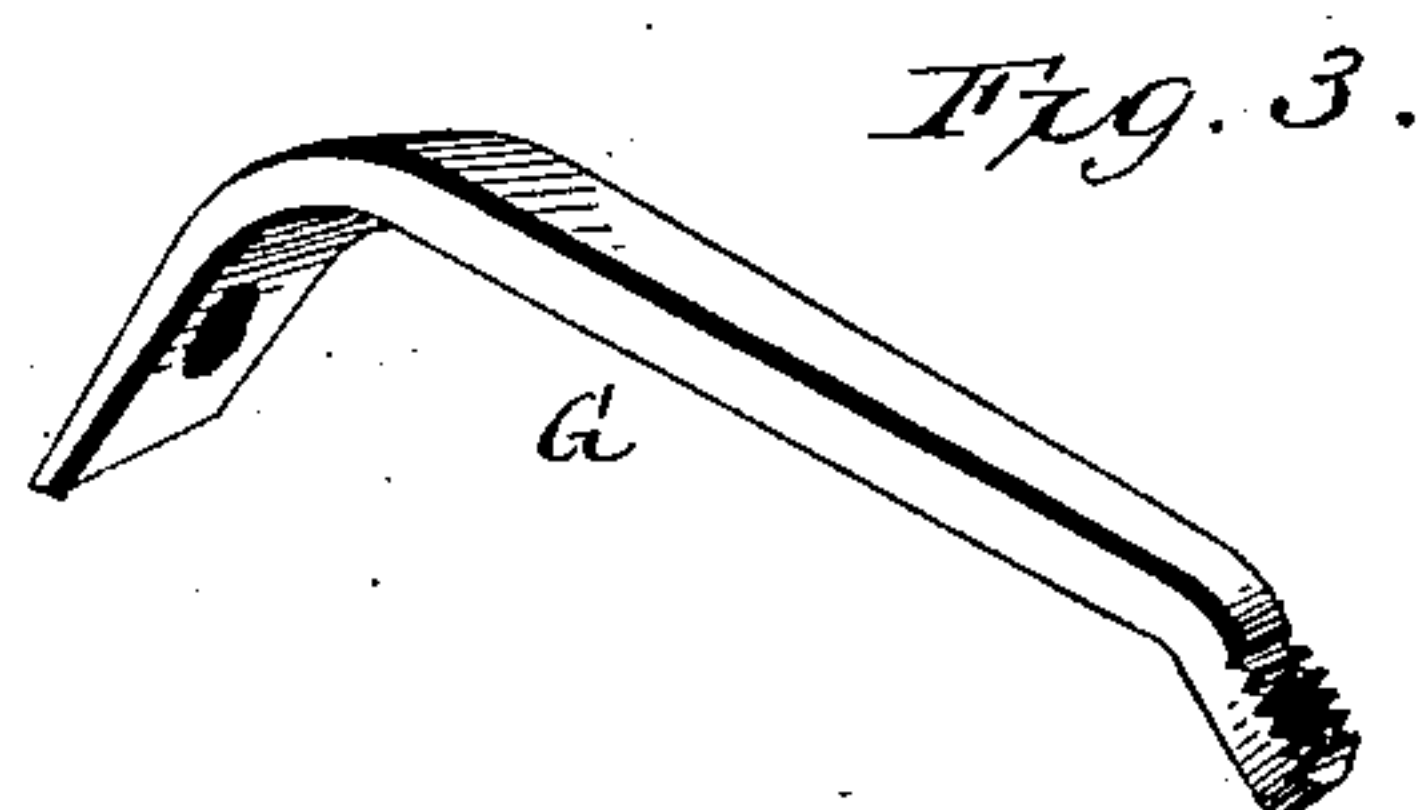
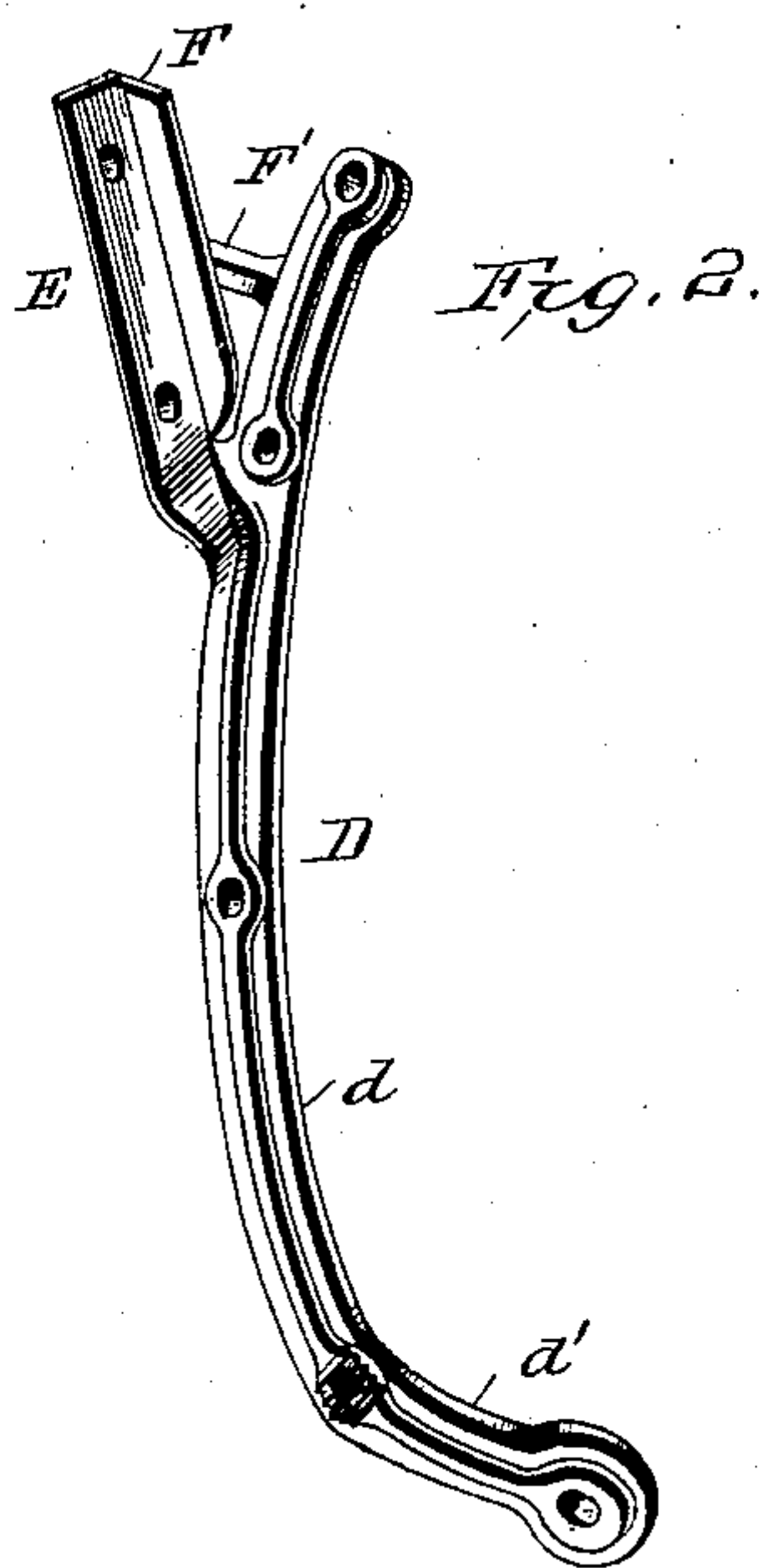
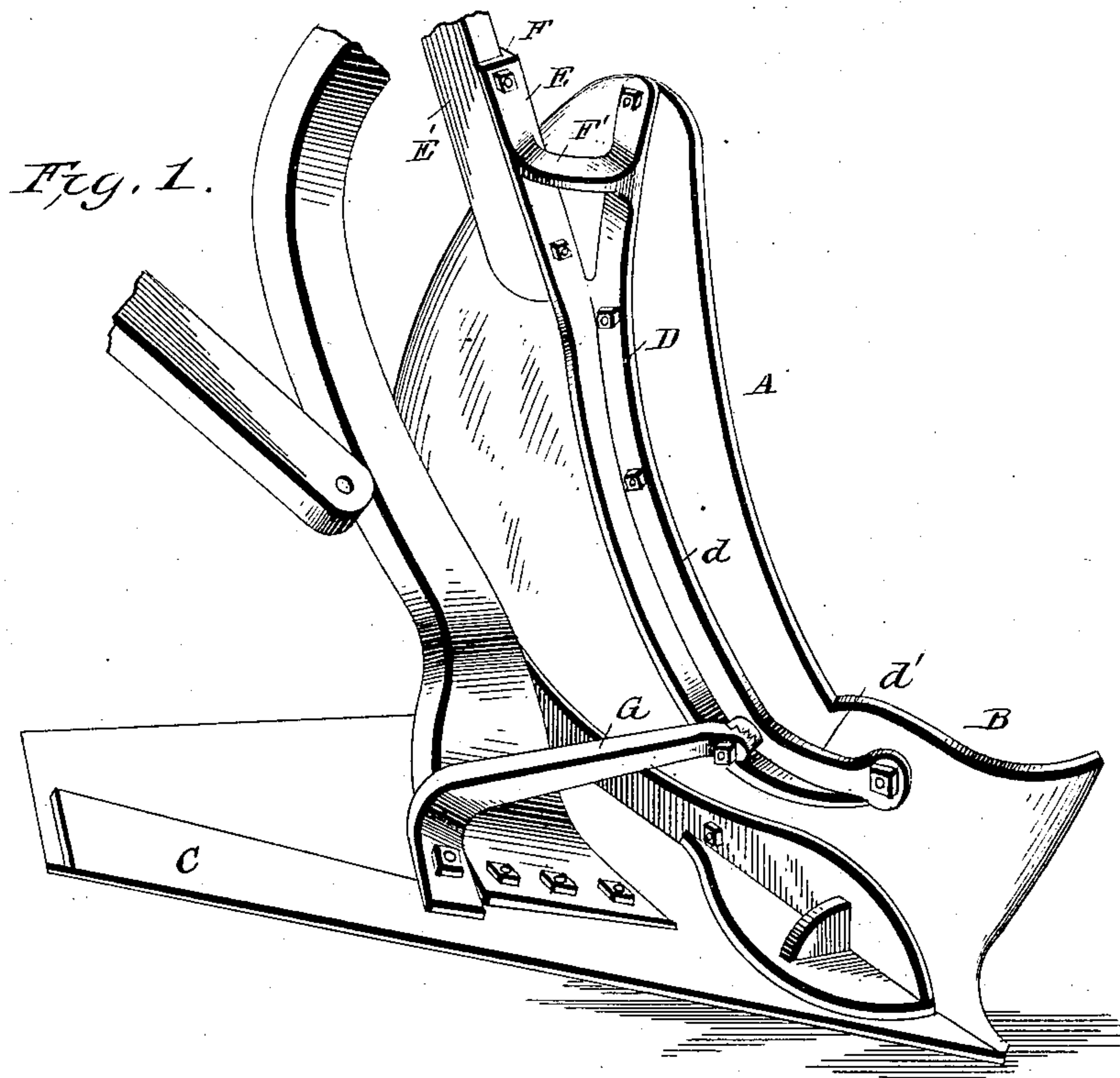


(No Model.)

H. H. SATER  
ATTACHMENT FOR PLOWS.

No. 407,450.

Patented July 23, 1889.



WITNESSES

Edwin I. Yewell.

Frank Kennedy.

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# UNITED STATES PATENT OFFICE.

HANS H. SATER, OF DUBUQUE, IOWA.

## ATTACHMENT FOR PLOWS.

SPECIFICATION forming part of Letters Patent No. 407,450, dated July 23, 1889.

Application filed August 22, 1888. Serial No. 283,420. (No model.)

*To all whom it may concern:*

Be it known that I, HANS H. SATER, of Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful  
5 Improvements in Attachments for Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

10 My invention relates to plows, and more especially to an attachment adapted to be applied to plows, whereby those parts which are most liable to get out of order and to break are strengthened and held inflexibly in position.  
15

In plows of ordinary construction the rear end of the mold-board is liable to get out of shape, and consequently the share and the mold-board handle also become displaced.  
20 To overcome these objections, I provide the mold-board and share with a brace which extends their whole length, and also construct a supplemental brace which connects the mold-board and landside.

25 The invention consists in the details of construction and combinations of parts, hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a view taken from the under side  
30 of the plow with my improvement applied thereto. Fig. 2 is a view taken from opposite sides of the brace, and Fig. 3 is a view of the supplemental brace.

Referring to the drawings, A represents a  
35 mold-board, B a share, and C a landside, of an ordinary plow.

D is a brace, which is adapted to be secured to the inner sides of the mold-board and share. The said brace extends from the rear  
40 upper end of the mold-board to and upon the share, and is connected thereto by suitably-arranged bolts. The brace consists of straight portion  $d$ , which is secured to the mold-board, and a deflected portion  $d'$ , which is connected  
45 to the share. The said brace is made to conform to the contour of the mold-board.

E represents an arm formed near the upper end of the brace D and arranged at an angle. The said arm E is adapted to receive  
50 the mold-board handle  $E'$ , and thus a rigid connection between said handle and plow is formed.

To provide a seat for the handle  $E'$  and to secure a rigid connection, a flange F is formed upon the arm E, and the said arm is provided  
55 with suitable bolt-holes. It will be seen that by attaching the handle  $E'$  to the arm E the necessity of forming bolt-holes in the mold-board for that purpose is avoided.

$F'$  represents a bracket joining the arm E  
60 to the brace D, and thereby strengthening said arm.

G is a supplemental brace which connects the mold-board with the landside, and is arranged at the proper angle. The said supplemental brace has its end turned at an angle, so that it may be attached to the landside and mold-board. The mold-board end of the supplemental brace is corrugated to form a rigid connection, the meeting faces of  
65 said brace and supplemental brace being similarly corrugated, and secured together by a bolt which secures both to the mold-board.

To allow for the variations in the size of the mold-board and landside, I form elongated  
75 bolt-holes in the brace and supplemental brace.

From the foregoing description it will be seen that I provide means whereby those parts of a plow which are liable to become dis-  
80 placed can be secured rigidly in position.

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

1. A brace for mold-boards, consisting of a  
85 straight portion  $d$ , secured to the mold-board, a deflected portion  $d'$ , connected to the share, and an arm E, for the reception of the mold-board handle, substantially as described and set forth.  
90

2. The combination of a brace D, secured to the mold-board and share and having a corrugated portion thereon, a supplemental brace secured to the landside and also provided with a corrugated portion, and a bolt  
95 or screw passing through the two and thereby securing said corrugated portions together.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HANS H. SATER.

Witnesses:

C. B. TREWIN,  
ALEX. SIMPLOT.