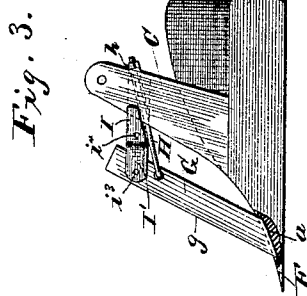
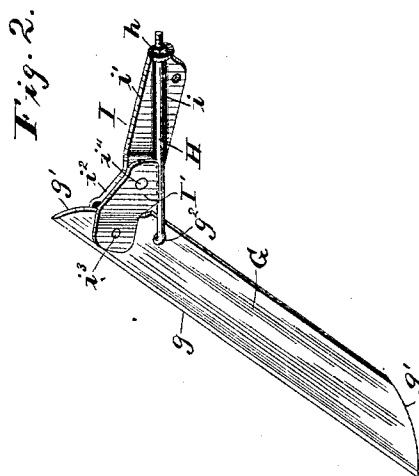
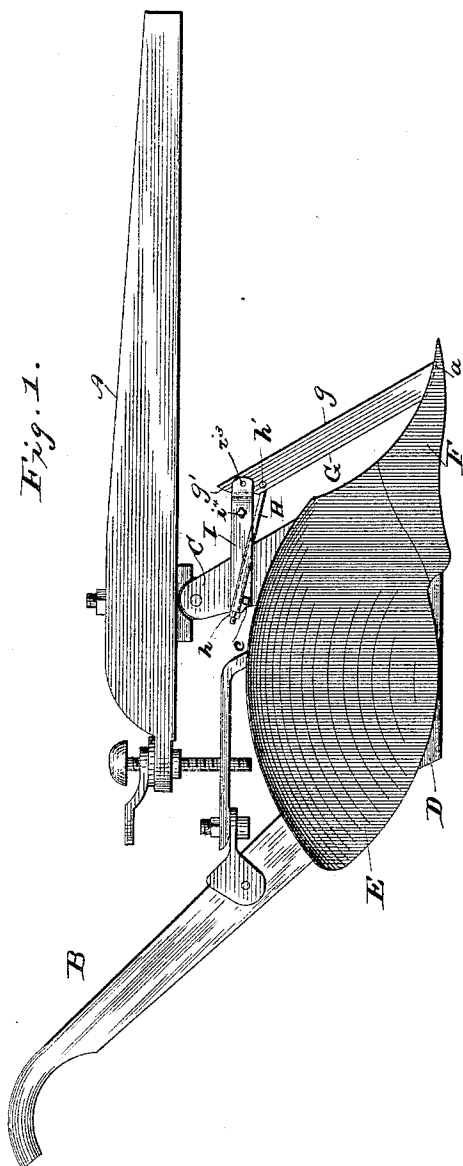


(No Model.)

O. A. ESSIG.  
COLTER FOR PLOWS.

No. 327,872.

Patented Oct. 6, 1885



WITNESSES

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# UNITED STATES PATENT OFFICE.

OZIA A. ESSIG, OF CANTON, OHIO.

## COLTER FOR PLOWS.

SPECIFICATION forming part of Letters Patent No. 327,872, dated October 6, 1885.

Application filed January 24, 1885. Serial No. 153,884. (No model.)

*To all whom it may concern:*

Be it known that I, OZIA A. ESSIG, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have  
5 invented certain new and useful Improvements in Colters for Plows, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side view of a plow having my  
10 improved colter attached thereto. Fig. 2 is a perspective view of the colter and the devices for attaching it to the plow. Fig. 3 is a view from the land side of the plow, showing a colter of slightly-modified form.

15 In the drawings I have shown all of the parts of a plow; but the invention to which this patent relates more particularly can be applied to any of the many styles of these implements. A brief allusion to the several  
20 parts will be sufficient herein.

A represents the beam, B the handle, C the standard or post, D the landside, E the mold-board, and F the point, each and all of which can be varied as may be desired.

25 To the parts above described I attach my improved colter, the invention relating, broadly, to the combination, with the cutting parts of the plow proper, of a colter so mounted that the point of the colter can be kept firmly  
30 seated upon the toe or share. In the drawings, G represents the colter proper, it consisting of a bar of metal with a sharp forward edge, *g*, the length of the colter being sufficient to reach from the surface of the soil to the  
35 toe of the plow. It may be made reversible, so that when one end has been sufficiently worn it may be inverted and the other brought into use, though I do not wish to be limited to such a construction, and have shown in Fig. 3 one  
40 which is not thus reversible. At one or both ends it is beveled on the rear edge, as shown at *g'*, so that it may be inclined somewhat and yet fit snugly within the socket or seat provided for it at *a* in the toe or share.

45 In order to prevent the toe of the colter from springing out of place in the socket or recess in the point should it meet with an obstruction, I employ a tension or tightening bolt, H, which draws the colter into its seat,  
50 and which at one end engages with the colter,

and at the other has a nut, *h*, engaging with the rear side of the post. This bolt may be mounted and connected at the ends with the respective parts in any of various ways. As shown, the bolt has a head, *h'*, seated in a countersunk recess, *g''*, the longer part of the bolt being bent at an angle to that part which carries the head, and said longer part is mounted in a groove, *i*, formed in the plate I, by which the upper end of the colter is fastened to the  
60 standard or post.

Preferably, the parts I and G are pivotally connected, the rigidity of the colter being attained by means of the bolt; but I do not wish to be limited to such construction, as the in-  
65 vention may be applied when the parts are otherwise constructed.

The specific construction shown is cheap, and for various reasons is at present preferred, in which the bar I is cast with the flat surface  
70 *i'*, to bear against the post or standard, with the aforesaid groove *i*, to receive the bolt, with an offset at *i''*, and with a pivot pin or lug, *i'''*, by which it is joined to the colter.

I' is a plate adapted to be clamped against  
75 the forward end of the part I, to which it is secured by means of a bolt, *i''*, and it is preferably formed with a countersunk socket to receive the end of the aforesaid pivot-pin *i'''*.

*c* is a bolt passing through the standard and  
80 uniting to it the bar I, this bar being further supported, when the colter is in place, by reason of the rear end of plate I' embracing the front edge of the standard and overlapping, for a short distance, the face of the  
85 standard opposite to that against which part *i'* of the bar I lies. The colter can be removed from between the bar I and plate I', between which it is confined, by simply withdrawing bolt *i''*, when plate I' can be removed, after  
90 which the colter can be slipped off from the pin *i'''* and removed, the nut *h* having been unscrewed from bolt H to allow it to be withdrawn with the colter. These changes, it will be seen, can be effected without necessitating  
95 the removal of bar I from the standard.

After the parts have been placed in the position shown in Fig. 1, the nut *h* is drawn up tightly, which insures that the lower end or  
100 toe of the colter shall be held firmly in the

seat or socket with sufficient power, under ordinary circumstances, to hold the toe in its position against all of the usual displacing agencies.

5 The bolt H is situated, preferably, above the line of the top of the soil, so that it shall in no wise interfere with the proper cutting or turning of the latter.

10 I am aware that a colter consisting of a cutting-bar attached at its upper end to some portion of the plow, and at its lower end seated in a recess in the plow-point, and provided with bolts or other means for confining its lower end in said recess, is old, and I do not  
15 claim such combination, broadly.

What I claim is—

1. The combination of a plow, the bar I, secured against one face of the plow-standard, the plate I', clamped against the forward end  
20 of bar I and overlapping the face of the standard opposite to that against which bar I lies, the colter supported at its upper end by bar I, and having its lower end seated upon the upper surface of the plow-point, and the tension-bolt H, which holds the point of the  
25 colter in place, substantially as set forth.

2. The combination of a plow, the bar I,

secured against one face of the plow-standard, and provided with a groove, *i*, in its inner face, the plate I', clamped against the forward  
30 end of bar I, and overlapping for a short distance the face of standard opposite to that against which bar I lies, the colter supported at its upper end between bar I and plate I', and having its lower end seated in a recess in  
35 the plow-point, and the tension-bolt H, lying in said groove *i* between the bar I and the standard, having its front end attached to the colter and provided with a nut, *h*, which engages with its rear end and bears against the  
40 rear edge of the colter, substantially as set forth.

3. The combination of a plow, the reversible colter G, having its lower end seated upon the plow-point, the bar which supports the  
45 upper end of the colter, and a tension-bolt which holds the point of the colter in its seat, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

OZIA A. ESSIG.

Witnesses:

HENRY FISHER,

JOHN C. WELTY.