

(No Model.)

W. H. HOLSCLOW.
PLOW.

No. 460,339.

Patented Sept. 29, 1891.

Fig. 1.

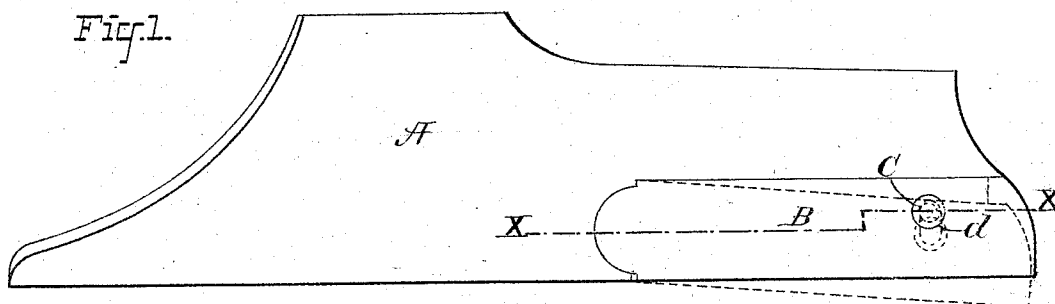


Fig. 2.

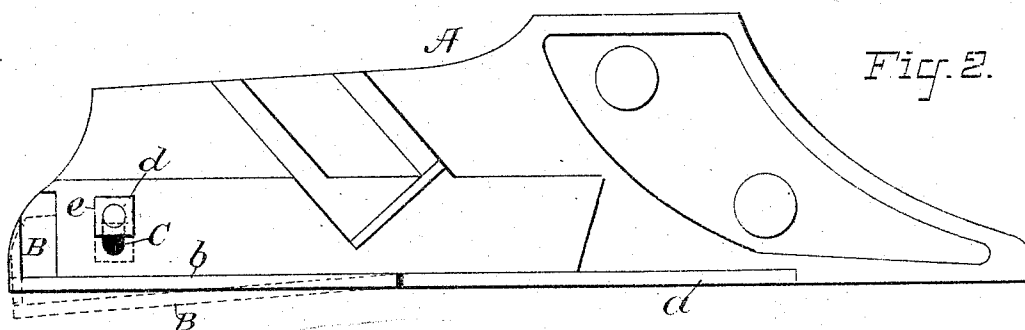


Fig. 3.

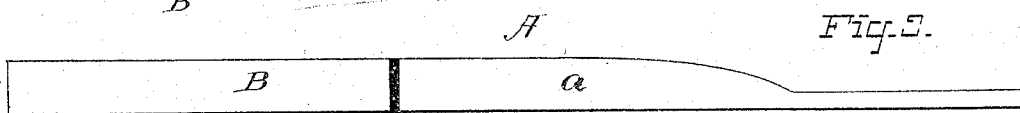
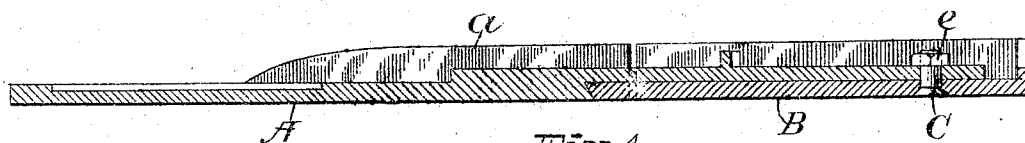


Fig. 4.



ATTEST:

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Attorn

UNITED STATES PATENT OFFICE.

WILFORD H. HOLSCLAW, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO B. F. AVERY & SONS, OF SAME PLACE.

PLOW.

SPECIFICATION forming part of Letters Patent No. 460,339, dated September 29, 1891.

Application filed April 27, 1891. Serial No. 390,563. (No model.)

To all whom it may concern:

Be it known that I, WILFORD H. HOLSCLAW, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Improvement in Plows; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improvement in that part of the plow designated the "landside," and has for its object to provide a simple, economic, and efficient means for compensating for any undue wear at the vicinity of the heel of the plow.

As is well known to those skilled in the art of making plows and familiar with the use of them, the cast-iron landside (sometimes made separately from and sometimes integral with the standard) is subjected to great wear at the heel, and when the heel shall have become worn down materially the handling or management of the plow becomes difficult and good or perfect work cannot be done with it.

Various constructions have been used and patented designed to render plows capable of satisfactory operation, even after the heel of the landside shall have become partially worn or rounded off, in some of which constructions the entire bottom portion of the landside has been made vertically adjustable and in others of which a short adjustable heel-piece has been employed. I propose to provide for use a plow of the last-named type or species which shall, however, be capable of somewhat better action and be more desirable in practical operation than those of this type which have heretofore been made; and to this main end and object my invention may be said to consist in the novel combinations of devices which will be found hereinafter more fully described, and which will be more particularly pointed out and clearly defined in the claims of this specification.

To enable those skilled in the art to make and use plows containing my improvement, I will now proceed to more fully explain the latter, referring by letters to the accompanying drawings, which forms part of this speci-

fication, and in which I have shown my invention carried out in the precise form in which I have so far practiced it.

In the drawings, Figure 1 is an elevation of the landside portion of a plow of modern and approved pattern, looking at the outer side of said portion. Fig. 2 is a similar view looking at the inner side of said part. Fig. 3 is a bottom view of the devices seen at Figs. 1 and 2. Fig. 4 is a detail sectional view at the line *x x* of Fig. 1.

In the several figures the same part will be found always designated by the same reference-letter, and at Figs. 1 and 2 I have illustrated the adjustability of the supplemental heel-piece by showing it set in a lowered position in dotted lines.

A is the landside proper, made of chilled cast-iron, and B is a supplemental rear portion or heel-piece that is constructed and arranged and that operates in conjunction with the part A, as I will now explain. The heel-piece B is made as to its general contour, it will be seen, in the form of an oblong plate, with a flange-like portion *b* projecting at right angles to the main or body portion of the device. This flange-like portion *b* constitutes the bottom or ground bearing portion and corresponds, it will be seen, in width with the width of the bottom flange *a* of the landside A of the plow and constitutes (when the heel-piece B is in place) a continuation rearwardly of said flange *a*, the two flange-like parts *a* and *b* forming the bottom of the landside as a whole. The landside A is cast with a depression or recess in its outer surface, within which is fitted and placed the main vertical or body portion of the heel-piece B, as shown, (see Fig. 1,) and when these two parts are assembled, the outer surface of the piece B lies in precisely the same plane as the outer surface of the landside A, so that the appearance and effect are the same as those of the usual cast landside made without my improvement.

As clearly shown at Fig. 1, the forward end of the heel-piece B has a semicircular projection that fits into and works against the correspondingly-shaped end wall of the depression of the part A, that accommodates said piece B, and as will be seen by reference to

4, the correspondingly-shaped semicircular parts of the pieces A and B are thereby locked together in a direction transverse to the plane of the landside, while at the same time the piece B can move in the plane of the landside to a given extent and in a manner to be presently explained.

Near the rear end of the heel-piece B the latter is perforated for the accommodation of the body portion and (countersunk) head of a bolt C, which also passes through the oblong aperture *d* in the landside A, (see Fig. 2,) and has its threaded end provided, as shown, with a nut *e*. By means of this bolt and nut arranged, as shown, near the rear end of the heel-piece B and the under cut or beveled engaging semicircular portions of said piece and the landside, (see Fig. 4,) the heel-piece is securely held in place, and by loosening and retightening said bolt and nut the heel-piece may be vibrated at its rear end, turning on an imaginary axis coincident with the center of the semicircle portions referred to. The oblong aperture *d* is made in the direction of a circular curve, the center of which coincides with the center of the said semicircular curves at the forward end of the piece B and the recess in part A, and hence while the heel-piece may be vibrated up and down at its rear end, (as indicated by the dotted lines at Figs. 1 and 2,) it is held in engagement at its forward end with the recessed landside, and turns on an imaginary axis without the presence of any separate pivot or pivotal part. It will be observed that when the heel-piece is in its highermost position, as shown by the full lines in the drawings, there is a slight opening or space between it and the landside at the point marked *m* (see Figs. 1 and 3) which slightly breaks the continuity of the bottom surface of the landside; but this small open space does not injuriously affect the working of the plow, and is necessary, it will be seen, to permit the heel-piece to be moved down in the direction and manner illustrated by the dotted lines, as the bottom of this, so to speak, adjustable portion of the landside-bottom wears away.

From the foregoing description, read connection with the drawings, it will be easily understood that in the use of a plow made as shown, all that the farmer has to do to keep the plow in perfect working order is to periodically adjust the vibrating device B as fast as the heel of the plow wears away materially, so as to always maintain a rear bottom portion at the vicinity of the heel—that is, substantially

in line with the forward permanent (an immovable) bottom portion of the landside, and that whenever the bottom part or flange-like portion *b* of the device B shall have become worn out all he has to do is to replace the old heel-piece B with a new one at a very trifling expense. Of course all the plows made of any given size and pattern will be duplicates, as to the recessed landsides and heel-pieces, so that a new heel-piece ordered of the manufacturer will fit to any plow (of the right number or pattern) made by him.

In the plow illustrated in the drawings, in which the length of the bottom of the landside A is about twenty-one inches, I make the extreme length of the piece B about nine inches, which divides the bottom of the landside into two parts, one of about thirteen inches, integral with the part A, and one nearly eight inches, integral with the adjustable piece B. In the case shown the height of the piece B is about two inches, which is very nearly half the entire height of the rearward main portion of the whole landside.

The proportions shown I have found desirable and proper; but they may, of course, be varied more or less without materially changing the construction shown.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the landside A cast or otherwise formed with a depression in its outer face and with a bottom flange extending back to the vicinity of the forward part of said recess, of a vibratile heel-piece B, provided with a bottom flange, substantially such as specified, and means for adjustably securing said heel-piece in place at the vicinity of its rearward end, all substantially in the manner and for the purposes hereinbefore set forth.

2. The combination, with the landside A formed with a recess which has the wall at its forward end both curved and undercut, as specified, of a heel-piece B, arranged and fitted within said recess, and means for adjustably securing the rear portion of said heel-piece to the landside A at any desired point of adjustment of the former, all substantially as and for the purposes hereinbefore set forth.

In witness whereof I have hereunto set my hand this 21st day of March, 1891.

WILFORD H. HOLSCLAW.

In presence of—

SAML. HENDERSON, Jr.,
ED. B. GARNER.