G. D. KELLY.

HEEL SWEEP.

APPLICATION FILED DEC. 2, 1918.

1,324,902. Patented Dec. 16, 1919.

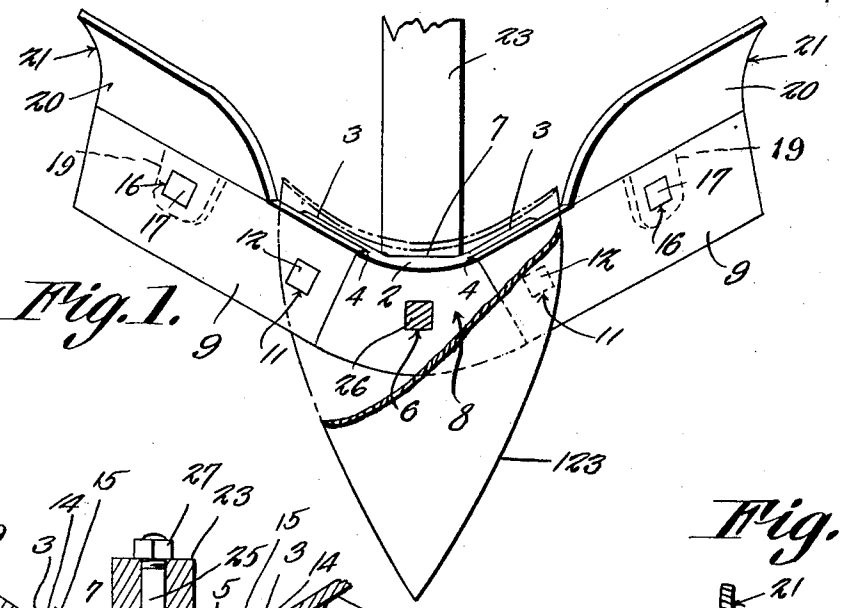


Fig. 1.

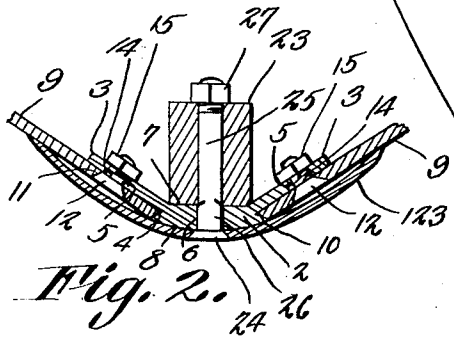


Fig. 2.

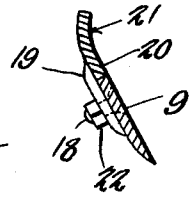


Fig. 3.

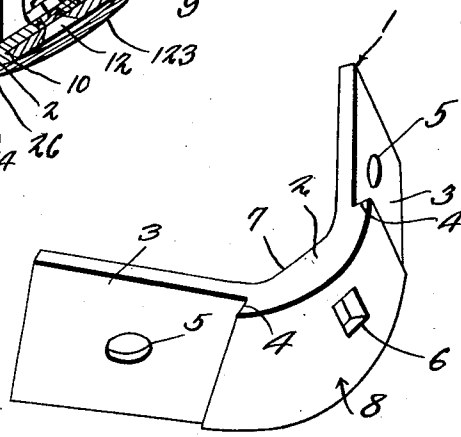


Fig. 4.

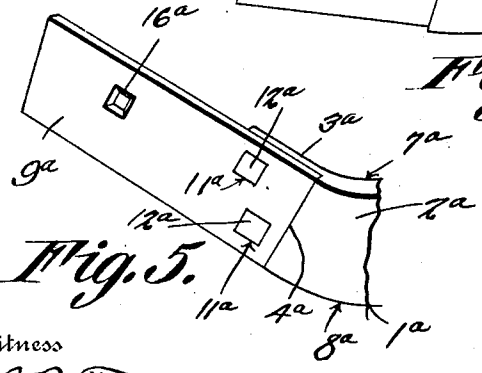


Fig. 5.

Witness

J. R. Tomlin

Inventor,

G. D. Kelly

By C. A. Snow & Co.

Attorneys.

UNITED STATES PATENT OFFICE.

GEORGE DUDLEY KELLY, OF JEFFERSON, TEXAS.

HEEL-SWEEP.

1,324,902. Specification of Letters Patent. Patented Dec. 16, 1919.

Application filed December 2, 1918. Serial No. 264,987.

To all whom it may concern:

Be it known that I, GEORGE D. KELLY, a citizen of the United States, residing at Jefferson, in the county of Marion and State of Texas, have invented a new and useful Heel-Sweep, of which the following is a specification.

The device forming the subject matter of this application is a heel sweep for a plow, and the invention aims to provide a sweep which will possess great strength, the construction being such that a secure assemblage of the various parts will be obtained by the use of a minimum number of securing devices, it being possible to interchange the wings of the device and to interchange the lateral blades, or to omit the wings, as the occasion may demand.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that, within the scope of what is claimed, changes in the precise embodiment of the invention shown can be made without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows in front elevation, a device constructed in accordance with the invention, the plow point appearing in dotted line; Fig. 2 is a fragmental transverse section taken on a horizontal plane, the plow point being shown in place; Fig. 3 is a fragmental vertical section taken through one of the blades and the corresponding wing; Fig. 4 is a perspective delineating the heel member; and Fig. 5 is a fragmental perspective disclosing a modification.

In carrying out the invention, there is provided a heel, denoted generally by the numeral 1, the heel including a central body 2 having side extensions 3. Undercut shoulders 4 are formed at the places where the side extensions 3 are connected to the central body 2. In the side extensions 3 relatively near to the shoulders 4, openings 5 are formed. There is a rectangular opening 6 in the central body 2 of the heel 1. The body 2 of the heel 1 is provided with a flat rear surface 7 and with a transversely curved forward surface 8. Laterally extending blades abut against the forward surfaces of the extensions 3, and are provided with beveled ends 10 coöperating with the undercut shoulders 4. A single rectangular opening 11 is fashioned in each blade 9, near to the inner end, the openings 11 being adapted to receive the rectangular heads 12 of bolts 14 passing through the openings 5 in the side extensions 3. Nuts 15 are threaded on the rear ends of the bolts 14 and coöperate with the rear surfaces of the side extensions 3. Since the shoulders 4 are undercut, and because the inner ends of the blades 9 are beveled, the blades will be held securely in place on the heel 1, even though a single bolt 14 is employed for securing each blade to the corresponding extension 3.

The blades 9 are supplied with rectangular openings 16 adapted to receive the rectangular heads 17 of bolts 18 passing through the depending offset flanges 19 of wings 20, the wings resting on the upper edges of the blades 9, and being forwardly or outwardly curved, as shown at 21. Nuts 22 are threaded upon the rear ends of the bolts 18 and coöperate with the flanges 19 to hold the wings 20 in place.

The numeral 23 denotes a plow stock which abuts against the flat rear surface 7 of the heel 1. A plow point 123 rests against the curved forward surface 8 of the heel 1. The rectangular opening 6 in the body 2 of the heel 1 is adapted to receive the rectangular shank 26 of a bolt 25, the bolt passing rearwardly through the plow stock 23, and there being a nut on the rear end of the bolt, coöperating with the rear surface of the plow stock. The bolt 25 includes a head 24 fitting in a properly shaped opening in the plow point 123, the bolt 25, obviously, serving to hold the plow point 123, as well as the heel 1 and parts carried thereby, firmly and securely on the plow stock 23.

The general construction of the device is such that an unusually strong structure results, the blades 9 being detachably mounted on the heel 1, so that one blade may be substituted for another, when the original blade becomes worn, or when it is desired that a blade of one shape shall be replaced by a blade of another shape. Similarly, the wings 20 may be renewed, removed, or changed at will. The construction is such that friction and wear is reduced to a minimum, the device being so made as to be well

adapted to withstand the severe usage to which structures of the type described are subjected. Weakness and springing of parts are avoided. The construction is such, that the user, by substituting different lengths of blades 9 may clear any desired area.

In the modification shown in Fig. 5, parts hereinbefore described are designated by numerals previously used, with the suffix "a". In this form of the invention, the shoulder 4^a is fashioned at right angles to the extension 3^a, the undercut feature shown in Fig. 4 being omitted, and two bolts being employed for securing the blade 9^a to the part 3^a, the heads of these bolts being designated by the reference character 11^a.

It is to be observed that the plow point 123 extends in front of the bolts 14 and serves to hold the bolts in place in the blades 9 and in the extensions 3. Owing to this construction, and because the blades 9 are provided with the beveled ends 10 which coöperate with the undercut shoulders 14, the blades will remain assembled with the extensions 3, even though the nuts 15 on the rear ends of the bolts 16 should become loosened accidentally.

It is to be understood that the structure forming the subject matter of this application is to be used in connection with plows of widely different constructions and that the shape of the plow point will vary according to the make of the plow wherewith the structure forming the subject matter of this application is used.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a heel comprising a central body and side extensions defining shoulders, the body being provided with an opening for the reception of a securing element; lateral blades abutting against the forward surfaces of the extensions and coöperating at their inner ends with the shoulders; securing devices uniting the blades with the extensions; wings resting on the upper edges of the extensions and provided with flanges prolonged downwardly behind the blades; and securing devices uniting the blades and the flanges.

2. In a device of the class described, a heel comprising a central body and side extensions, there being undercut shoulders at the places of juncture between the extensions and the body, the body being provided with an opening for the reception of a securing element; lateral blades abutting against the forward surfaces of the extensions and having beveled inner edges coöperating with the undercut shoulders to form a lock-joint; and a single securing device connecting each blade with the corresponding extension.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE DUDLEY KELLY.

Witnesses:
Z. L. Biggs,
A. McKay.