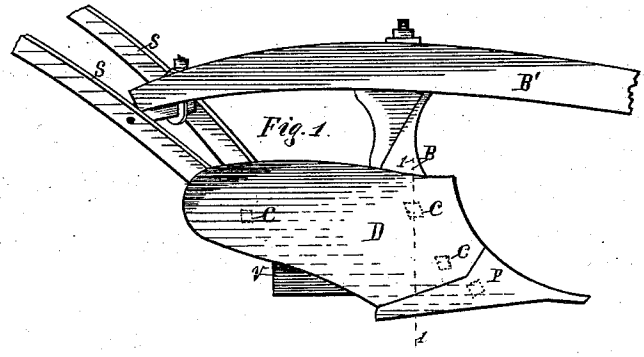
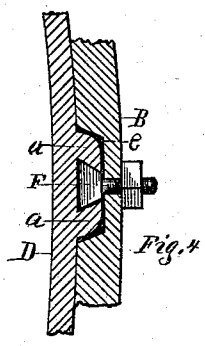
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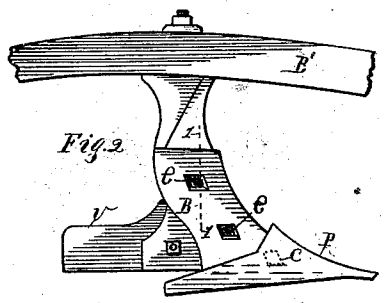
K. KELLOGG.

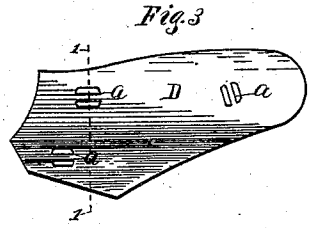
PLOW.

No. 264,885. Patented Sept. 26, 1882.









Witnesses.
John C. Perkins.
Francis W. Randall.

Inventor.
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UNITED STATES PATENT OFFICE.

KIRK KELLOGG, OF KALAMAZOO, MICHIGAN.

PLOW.

SPECIFICATION forming part of Letters Patent No. 264,885, dated September 26, 1882.

Application filed July 1, 1882. (No model.)

To all whom it may concern:

Be it known that I, KIRK KELLOGG, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented new and useful Improvements in Plows, of which the following is a specification.

My invention consists in an improved construction for blind-bolting the detachable parts of a plow with the shoe or support.

In the drawings forming a part of this specification, Figure 1 is a side elevation partly in perspective, showing by dotted squares the location of bolt-heads in the exterior surface of the mold-board of former plows; Fig. 2, a plow with mold-board removed; Fig. 3, inner surface of mold-board, and Fig. 4 a section on line 1 1 in Fig. 1.

On the inner surface of the detachable parts (see mold-board D for an illustration) I form ribs *a a*, having a channel between them, the sides of which channel form oblique angles converging from their base. P is the detachable point, and *r* the detachable landside.

In shoe B, at proper locations for the connections of parts, are formed countersinks *e e*, which are perforated through the center and adapted to receive the ribs, constituting a bolt-head recess, as in Fig. 4. The head F of the bolt is beveled to conform to the shape of its recess, in which it is loosely, adjustably, and detachably located. By this method of securing the detachable parts of the share to the shoe B no bolt-heads are in sight in the exterior surface, the same being thus entirely smooth. The dotted squares in Fig. 1, as before stated, show the former location of bolt-heads which were flush with the surface. Thus those parts of a plow which run through were more liable to clog by the dirt collecting by the bolt-heads. As the bolt-heads F are movably located in the recess, which is made longer than said heads, the bolt can be readily centered in the hole in the center of the countersink by slipping the bolt-head in either direction, and hence the frequent variation in the shrinkage of the cast parts does not interfere with their speedy connection. Should this variation be so great as to bring the recessed ribs *a a* out of a proper location to easily enter the countersinks, said rib can be readily ground off a little, in lieu of grinding the castings themselves, which frequently ruins them without effecting the desired result.

The object, of course, of locating the bolt-head recesses in the countersinks is to keep the part connected with the shoe from slipping, which it would otherwise do, owing to the capacity of the bolt-head to move in said recess.

Having thus described my invention, what I claim is—

1. The shoe of a plow having the perforated countersink, in combination with a detachable part of the share having the bolt-head recess, and the bolt having a head adapted to fit adjustably in said recess, all substantially as set forth.

2. A detachable part of a plowshare provided with the bolt-head recess, the shoe having the perforated countersink, and the bolt having a securing-nut and a head adapted as set forth, substantially as shown.

KIRK KELLOGG.

Witnesses:
FRANCIS W. RANDALL,
JOSHUA F. ALLEY.