April 14, 1953 O. BENNER 2,634,664

PLOWSHARE WITH DETACHABLE BLADE SECTION

Filed July 10, 1950

Fig.1.

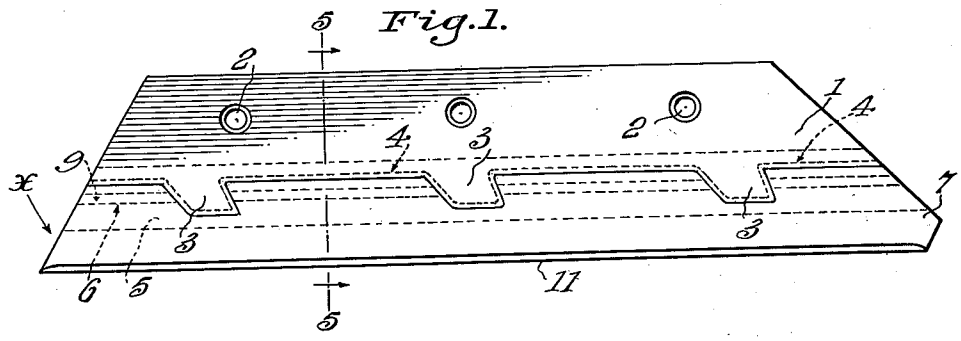


Fig.2.

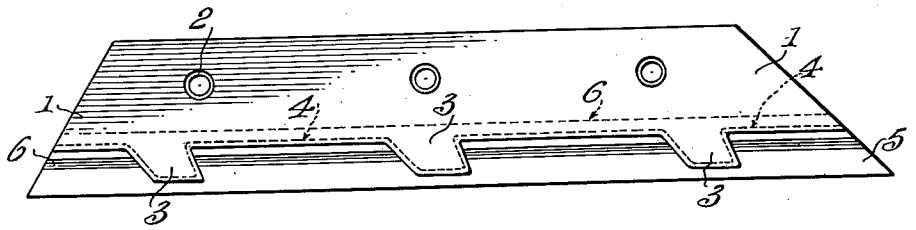


Fig.3.

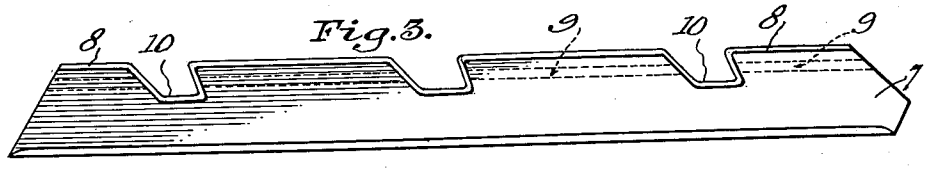


Fig.4.

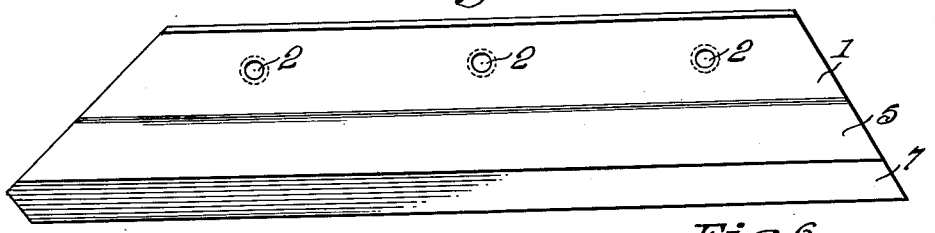


Fig.5

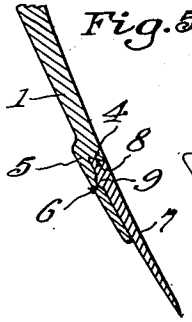


Fig.7.

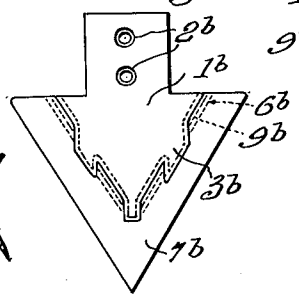
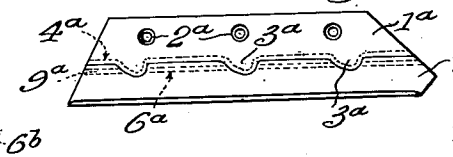


Fig.6.



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PLOWSHARE WITH DETACHABLE BLADE SECTION

Oscar Benner, Friendship, Ohio

Application July 10, 1950, Serial No. 172,911

1 Claim. (Cl. 97—125)

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My invention, which relates to plows, has for its object to provide a plowshare with a snap-on detachable blade section of such design and construction that the removable section when in place will be firmly held (without the use of bolts, screws, etc.) so as not to become accidentally detached while in use.

Again, it is an object of the invention to provide a plowshare blade composed of two sections, one of which is detachable and which receives the wear when in use, which blade is inexpensive to produce and one in which the interlocking projections of the blade sections will be flush on the front of the plow and will be covered on the back of the blade by an extension of the fixed section, said extension serving also to reinforce the joint between the sections of the blade.

A further object of the invention is to provide a plowshare whose detachable blade section, when the plow is in use, will tend to seat itself on the other blade section more firmly rather than to loosen up.

To the attainment of the aforesaid objects and ends invention still further resides in the novel details of construction, combination, and arrangement of parts, all of which will be first fully described in the following detailed description, and then be particularly pointed out in the appended claim, reference being had to the accompanying drawing, in which:

Fig. 1 is a face view of a plow blade embodying my invention.

Fig. 2 is a face view of the fixed section of the blade per se.

Fig. 3 is a face view of the detachable section per se.

Fig. 4 is a rear elevation of the assembled sections.

Fig. 5 is a cross section on the line 5—5 of Fig. 1.

Fig. 6 is a face view, on a smaller scale, of a modification of the invention.

Fig. 7 is a face view of a spearhead shovel embodying my invention.

In the drawing, in which like numerals and letters of reference indicate like parts in all the figures, 1 represents the fixed section of a plow blade having holes 2 for attaching bolts and having a number of similar projections 3. The edges of the section 1 which cooperate with the edges of a detachable section 7 are undercut or beveled as at 4. The fixed section also has a projecting strip 5 secured to the back of the blade, which strip extends below the ends of the projections 3, as best shown in Fig. 2.

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Parallelling the lower straight end of the blade section 1 the strip 5 has a (preferably concave) groove 6 for a purpose presently to be explained.

The detachable blade section 7 has recesses 10 shaped to conform to the projections 3. The edges of the blade section 7 which cooperate with those of the fixed section 1 are also beveled as at 8 to fit the beveling 4.

The projections 3 and the recesses 10 are preferably disposed at an inclination to the straight edge 11 of the detachable blade and are somewhat tapered in face view, as shown in the drawing.

The section 7 also has a (preferably convex) rib on its back face to interlock with the groove 6 when the sections are fully assembled, thereby providing, as it were, a snap-on joint between the sections of the blade.

The projections may have sharp-angled corners, as shown in Figs. 1 to 3, or they may be rounded as at 3^a in Fig. 6. In Fig. 6 those parts which correspond to like parts in the preceding figures bear the same reference numbers plus the index letter *a*, so a fuller description of the modification shown in Fig. 6 is thought to be unnecessary.

In Fig. 7 I have shown how my invention may be applied to a spearhead shovel. In this figure those parts which correspond to similar parts in the preceding figures bear the same reference numbers plus the index letter *b*, and a further description thereof is thought to be unnecessary.

Other modifications of the invention will readily occur to those skilled in the art, within the scope of the appended claim.

In assembling the two parts of the blade, the two parts are placed together with the projections 3 registering with the recesses 10; these parts are then forced toward each other until they snap home.

To remove the detachable section from the fixed section of the blade: this can be accomplished by driving off the section 7 by hammering against the side in the direction of the arrow *x* in Fig. 1, the strip 5 being sufficiently springy to permit this action.

The strip 5 also serves, by means of retaining friction, to prevent accidental detaching of the blade section 7. The beveling of the meeting edges of the two parts of the blade, as at 4 and 8, also serves, by retaining friction, to prevent accidental detaching of the blade section 7.

From the foregoing description, taken in connection with the accompanying drawings, it is

thought that the construction, operation, and advantages of the invention will readily appear to those skilled in the art to which it relates.

What I claim is:

A plowshare having a body portion and a detachable blade portion, a depending longitudinally extending strip formed integrally with the rear face of the body portion and projecting below the lower edge of the front face of the body portion, a plurality of longitudinally spaced depending projections formed integrally with the front face of said body portion and spaced from the lower edge of said strip, the lower edge of the front face of said body portion and said projections terminating in an undercut surface projecting towards said strip, said blade portion having a plurality of spaced recesses formed in the top edge thereof for receiving the projections on said body portion, said blade portion having its top edge and said spaced recesses formed with a beveled surface for engagement with the undercut surface of said body portion, said projections and recesses being inclined towards the forward edge and the direction of movement of said body and blade portions for wedging said blade portion onto said body portion in interlocking engagement, a groove formed in the forward face of said depending strip and extending longitudinally of said strip, a rib on the rear face of said blade portion and extending longitudinally of said blade portion for interlocking engagement with said groove when the blade portion is wedged on said body portion and said strip adapted to overlie a portion of the rear face of said blade portion when said blade portion engages said body portion.

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