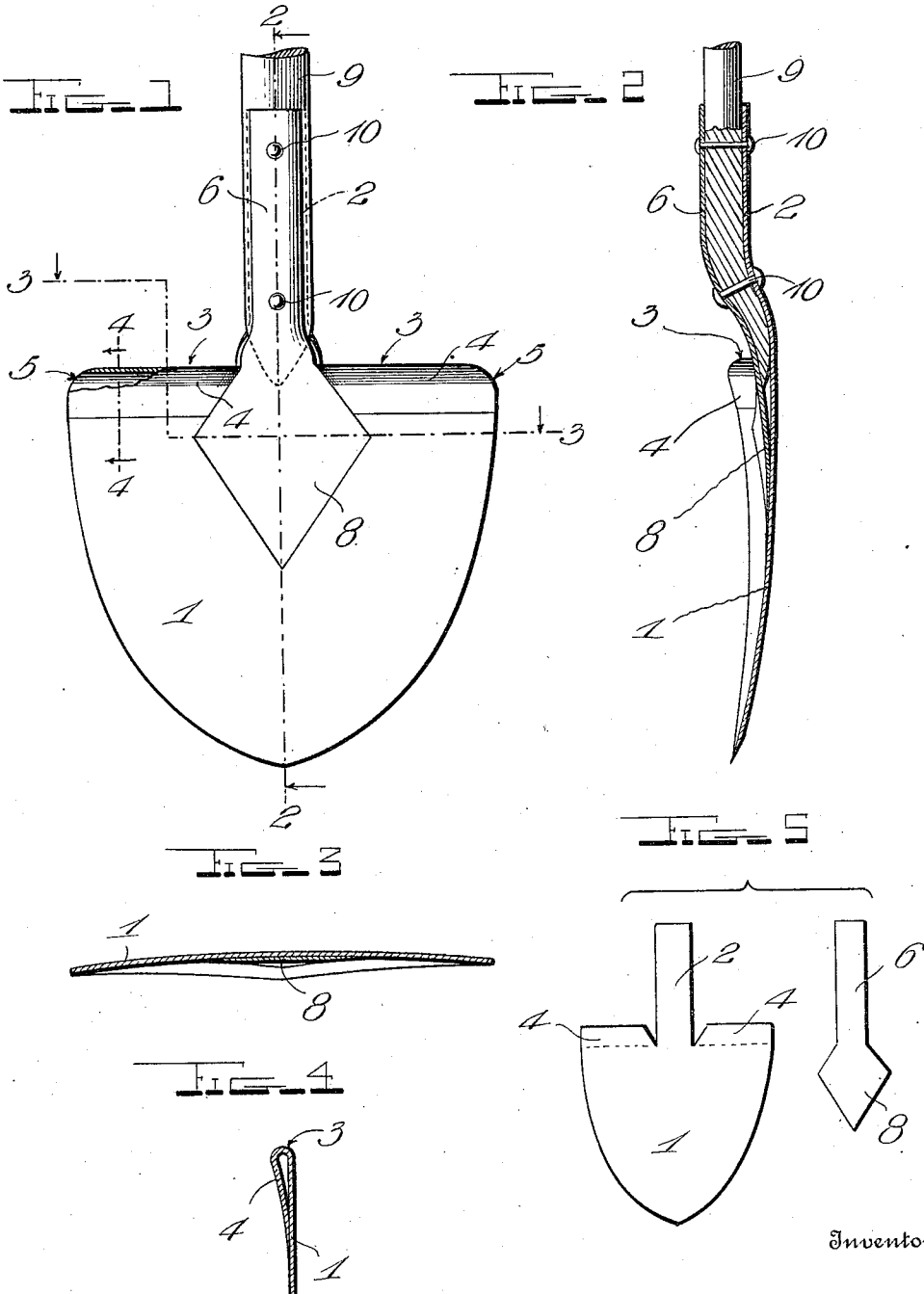


A. T. LOFTSGAARDEN.
 SPADE AND SHOVEL.
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1,046,616.

Patented Dec. 10, 1912.



Witnesses

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ALBERT T. LOFTSGAARDEN, OF POWELL, WYOMING.

SPADE AND SHOVEL.

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To all whom it may concern:

Be it known that I, ALBERT T. LOFTSGAARDEN, citizen of the United States, residing at Powell, in the county of Park and State of Wyoming, have invented certain new and useful Improvements in Spades and Shovels, of which the following is a specification.

This invention has relation to spades and shovels, the object being to provide the blade of the spade or shovel with curled shoulders adapted to afford ample foot rest for a user with a view of preventing damage to the shoe of the user.

While the invention is illustrated as applied to a spade, it may be used upon shovels of any description, as for instance irrigating shovels or other shovels adapted to be used for the purpose of handling or turning the soil.

The material from which the blade is formed is turned over at the shoulders and is welded to the body portion of the blade, whereby the upper portion of the blade is stiffened, also the corners of the shoulders are chamfered or curved so that projecting points or sharp edges are removed at the shoulders of the blade and therefore should the foot of a user slip, there is no liability of damage to the boot or shoe in consequence of coming in contact with the sharpened corners of the edges. The blade is provided with a leaf which in part constitutes a ferrule for the handles of the spade and a leaf is welded to the upper portion of the blade and constitutes the remainder of the said ferrule. The presence of the last mentioned leaf upon the blade together with the securing means (preferably welded) also serves to strengthen the upper intermediate portion of the blade.

In the drawings:—Figure 1 is a side elevation of a spade provided with the curled shoulders; Fig. 2 is a longitudinal sectional view of the same cut on the line 2—2 of Fig. 1; Fig. 3 is a transverse sectional view of the same cut on the line 3—3 of Fig. 1; Fig. 4 is a sectional view of the same cut on the line 4—4 of Fig. 1; Fig. 5 includes side views of the blanks from which the spade is formed.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

As illustrated in the accompanying drawing the blade 1 is in spatula form and may

be pointed or square at its work engaging end, as desired. This blade is concaved centrally or longitudinally in the usual manner. From the upper edge of the blade and midway between its side edges a leaf 2 is formed of the same material of which the said blade is constituted. This leaf is also concaved and serves as a part of a ferrule to which the handle of the spade is attached and upon which the blade is mounted. Beyond the side edges of the leaf 2 the blade 1 is provided with the usual shoulders 3. The material of which the blade 1 is composed is curled or bent back at the shoulders against the forward portion of the blade and welded. These curls or bent back portions are indicated at 4. The edges of the curled portions 4 are preferably welded to the face of the blade and therefore the thickness of material at the upper portions of the blade 1 where the curls 4 are joined with the same serve to strengthen the blade.

After the curls 4 have been formed as indicated the corner portions of the blade together with the ends of the curled portions are rounded off as at 5. A leaf 6 of sheet metal is located above the leaf 2 and this leaf is concaved longitudinally and constitutes a part of the ferrule to which the handle of the blade is attached. At the lower end of the leaf 6 a head portion 8 is left and this portion is welded to the forward face of the blade 1 at the upper portion thereof. The inner end edges of the curled portions 4 are secured by welding or otherwise to the upper side edges of the head portion 8. The head 8 serves to reinforce and strengthen the blade 1 in a direction transversely of its length and coöperates with the end portions of the curls 4 in adding additional material to the upper portion of the blade and constitutes a continuous reinforcement at the upper part thereof. The handle of the blade is indicated at 9. This handle may be of any desired form and its end is inserted between the leaves 2 and 6. Rivets 10 or other suitable securing devices are passed transversely through the said leaves and the portion of the handle which is received between them. Therefore it will be seen that the spade or shovel is provided at its shoulders with doubled thicknesses of material to afford a foot rest for a user. The doubling of the material not only strengthens the blade but also increases the surface of the tread against which the operator may press

the instep of his foot when the spade is in use. If at any time the shoulders should incline so that the foot would slip toward the outer end thereof and move off of the end of the shoulders in consequence of downward pressure the chamfered corners 5 will afford no obstruction and consequently the foot-wear of the user will not be damaged.

While the foregoing description and accompanying drawing set forth the preferred embodiment of my invention, it is to be understood that various changes in the details of construction, arrangement and proportions of the parts may be made within the scope of the invention as defined by the appended claim.

By reference to Fig. 4 of the drawings, it will be seen that the curled portions 4 are smoothly joined with the upper part of the blade and that no shoulders are formed at the lines where the said curls join with the blade. As hereinbefore stated these curls are welded directly to the blade and consequently when the blade is used for handling or turning the soil there are no obstructions

at the upper edge of the blade to catch and retain the soil. If desired, the ends of the curls may be closed to exclude all dirt.

Having thus described the invention, what is claimed as new is:

A spade or the like comprising a blade formed from sheet metal and having at its upper edge an integral leaf, another leaf having a head applied to the front face of the blade, a handle secured between the upper end portions of said leaves, the material at the upper portion of the blade and at the opposite sides of the integral leaf being curled back upon the body of the blade and secured thereto the inner edges of said curled back portions fitting against and secured to the opposite side edges of the head of the applied leaf.

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

ALBERT T. LOFTSGAARDEN.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."