

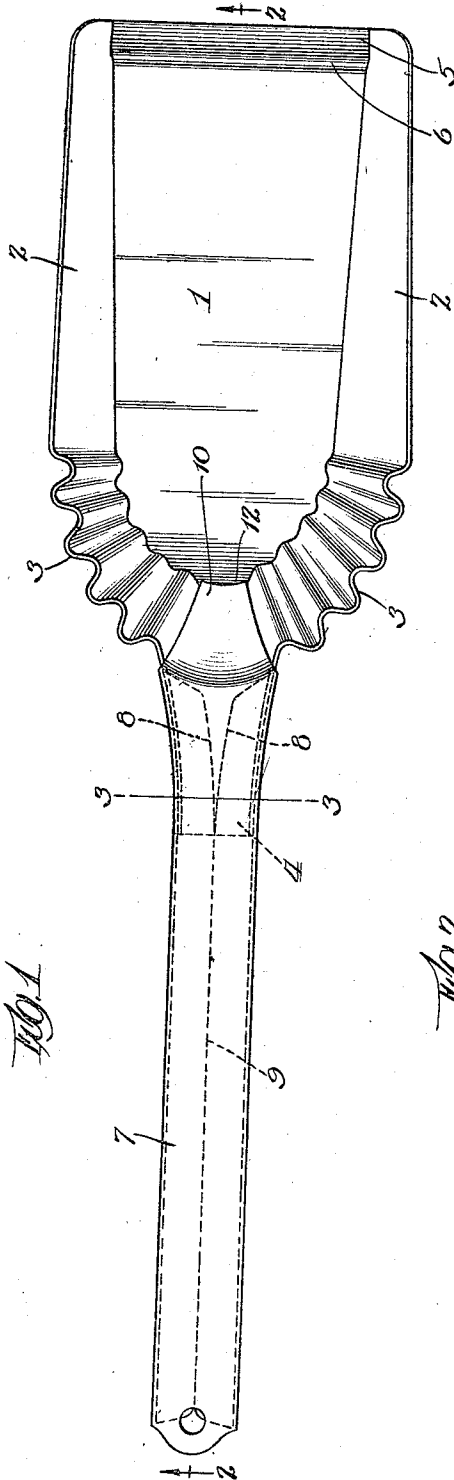
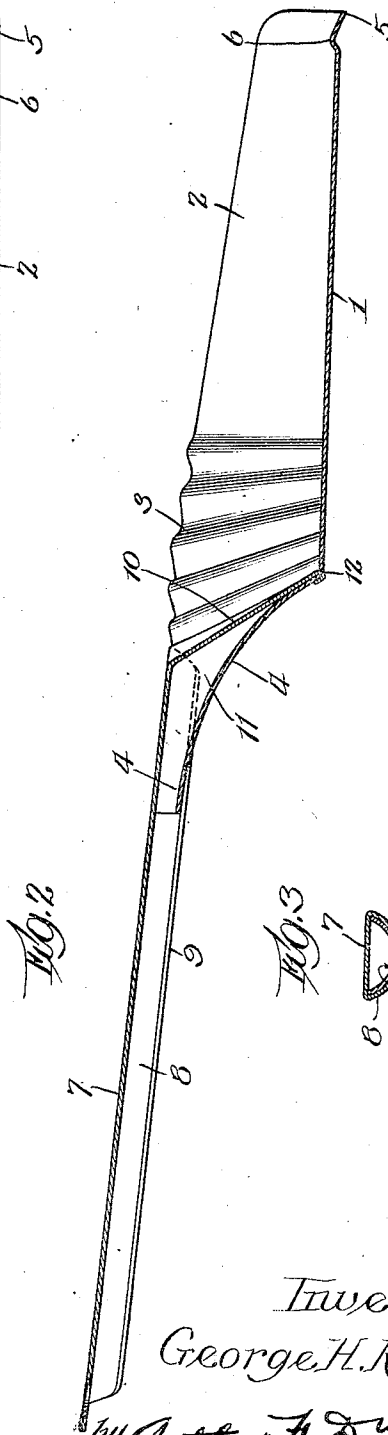
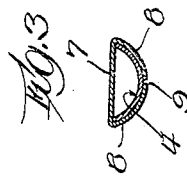
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SHOVEL

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UNITED STATES PATENT OFFICE.

GEORGE H. REIMER, OF FULTON, ILLINOIS, ASSIGNOR TO PATENT NOVELTY COMPANY,
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SHOVEL.

Application filed March 27, 1922. Serial No. 547,187.

To all whom it may concern:

Be it known that I, GEORGE H. REIMER, a citizen of the United States, and a resident of Fulton, Whiteside County, Illinois, have
5 invented a certain new and useful Improvement in Shovels, of which the following is a specification.

This invention relates to stove or fire shovels for putting coal in a stove or fire-
10 place or for taking out ashes and performing other kinds of work requiring a shovel which can be held in one hand and used conveniently for the desired purpose.

Generally stated, the object of the invention is to provide a strong and durable shovel
15 having a handle which will not be liable to break off where it is joined to the scoop like body portion, which can be manufactured at a comparatively low cost of production, and which will be attractive in appearance.

To the foregoing and other useful ends the invention consists in matters hereinafter set forth and claimed and shown in the accompanying drawings in which—
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Figure 1 is a plan of a fire or stove shovel embodying the principles of the invention.

Figure 2 is a longitudinal section on line 2—2 in Figure 1.

30 Figure 3 is a cross section on line 3—3 in Figure 1.

As thus illustrated, the invention comprises a scoop or body portion having a flat bottom 1 and outwardly inclined sides 2 and
35 the corrugated or fluted end walls 3, with a central smooth portion 4 between the two corrugated end walls. This trough-shaped portion 4 forms a very strong shank or stub for the shovel, which curves gradually down to the bottom. The lip 5 is depressed and has a raised transverse portion 6 immediately in rear thereof to prevent the ashes or other substance from sliding off the shovel. The handle is formed from a flat sheet bent
45 to provide a flat top wall 7 and curved lower walls 8 which come together at their edges at 9 on the bottom of the hollow handle thus formed. The stub 4 is inserted in the handle as shown. The handle has an attaching portion 10 which is tapered downward and bent
50 down and over the cavity 11 formed in the top of the portion 4 previously mentioned. The lower end of this portion 10 is inserted through the slot 12 and bent up at 13 to form an anchoring hook, whereby the han-

dle is solidly and firmly secured to the scoop or body of the shovel. The portion 10 is preferably tapered downward, and is also
trough like on its outer surface, to some extent, as shown, to fit the formation of the
60 body at this place, and to make the portion 10 stiff and strong. The body or scoop is formed from a flat section of sheet metal, and the handle is also formed from a blank of sheet metal; and the two are fastened to-
65 gether without using rivets or other fastening means. The shovel is reinforced in this way to prevent breakage where the handle joins the scoop or body. The upper edges of the portion 4 engage the bottom of the wall
70 7, and the two walls 8 are clamped and compressed tightly upon the bottom of the wall 4, as shown, thus ensuring a strong joint between the handle and the scoop or body of the shovel. The hollow or cavity of the
75 handle is continued downward by the space or cavity 11 to a point some distance below the upper edge of the scoop, thus ensuring greater strength.

It will be seen that the handle and the
80 shank 4 of the shovel form a telescoping clamp joint, of a very strong and rigid character, so that no rivets or other fastening devices are necessary.

As previously stated, the downwardly tapered attaching portion 10 of the handle is somewhat trough-shaped, and as a consequence it is more or less concave in cross
section on its outer surface, and does not bulge upwardly and forward, but to the
90 contrary has a slight bulge backward into the cavity 11, previously described. This forms a very stiff and strong connection between the handle and the scoop or blade of the shovel.

It will be seen that the upturned side edges of the stub 4 form a trough which
95 curves very gradually and very uniformly down to the bottom of the scoop. Furthermore, it will be seen that the shallow concave or trough-like surface of the attaching portion 10 faces forward into the scoop,
100 and faces upwardly to some extent also, thereby to produce a very stiff and strong joint between the handle and scoop.

It will be seen that the cavity 11 is so formed that the slot 12 is a distance below
105 this cavity, the slot being in the bottom 1 instead of in the rear wall of the scoop. Moreover, it will be seen that the stub 4 110

is embraced by the handle in the manner shown and described, and co-operates with the connection at 12, thereby to obviate the necessity of riveting or otherwise fastening the handle to the stub, and whereby the continuation of the hollow of the handle downward a distance into the body of the scoop tends to ensure a very rigid and strong construction.

10 What I claim as my invention is—

1. A shovel comprising a sheet metal scoop having a flat bottom (1) and provided with a hollow sheet metal handle extending from the rear end thereof, the rear end portion of the scoop being inserted in the handle, and said handle having lower walls (8) bent together at their edges (9) along the bottom of the handle, with the interior space or hollow of the handle itself continued downward by means of a cavity (11) formed between the handle and said rear end portion, and which cavity extends a distance downward inside the scoop and tapers off to nothing before it reaches the bottom of the shovel.

2. A structure as specified in claim 1, said handle and scoop being formed separately, with a slot disposed below said cavity and formed in the bottom of the scoop, and with a portion of said handle inserted through said slot and bent backward and upward to anchor it therein.

3. A structure as specified in claim 1, said rear end portion of the scoop being a trough-shaped stub or shank formed with upturned side edges and extending a distance into said handle and curving down to the bottom, so that said cavity is in the upper side of said shank and under a flat portion of the handle.

4. A structure as specified in claim 1, said handle having a stiff trough-like attaching portion tapered downward and inserted in the bottom of the scoop or body of the shovel, below said cavity, with the

shallow concave side thereof facing forward into the scoop.

5. In a fire shovel, a scoop-shaped body, and a sheet metal handle therefor, attached to the rear end of the scoop-shaped body, said handle having a suitable grasping portion, and having an attaching portion extending downward into the scoop-like body, at the rear end thereof, said attaching portion being more or less concave in cross section on its outer surface, thereby to stiffen this attaching portion, and said scoop-like body having a trough-shaped stub at its rear end, together with means on said handle to embrace said stub, thereby to obviate the necessity of riveting or otherwise fastening the handle to the stub, and means to attach the lower end of the attaching portion to the scoop, whereby a cavity is formed between the lower surface of the handle and its said attaching portion and the upper surface of said stub.

6. A structure as specified in claim 5, said attaching portion being tapered downwardly, having its shallow trough-like surface facing forward and upward, and said attaching means comprising a slot in the heel of the scoop, the lower end of the attaching portion being inserted through this slot and bent to anchor it therein.

7. A structure as specified in claim 5, the grasping portion of said handle being flat on top and having lower curved walls bent toward each other to stiffen the handle, the handle thereby being shallow and having a single joint along the hollow thereof, and to form the means for embracing said stub.

8. A structure as specified in claim 5, the rear wall of said scoop being corrugated at each side of said handle attaching portion, and the latter having its shallow trough-like surface facing forward between the two corrugated portions.

GEORGE H. REIMER.