

No. 625,984.

Patented May 30, 1899.

D. PARKS.
MILL SPOUT.

(Application filed Mar. 21, 1899.)

(No Model.)

Fig. 1.

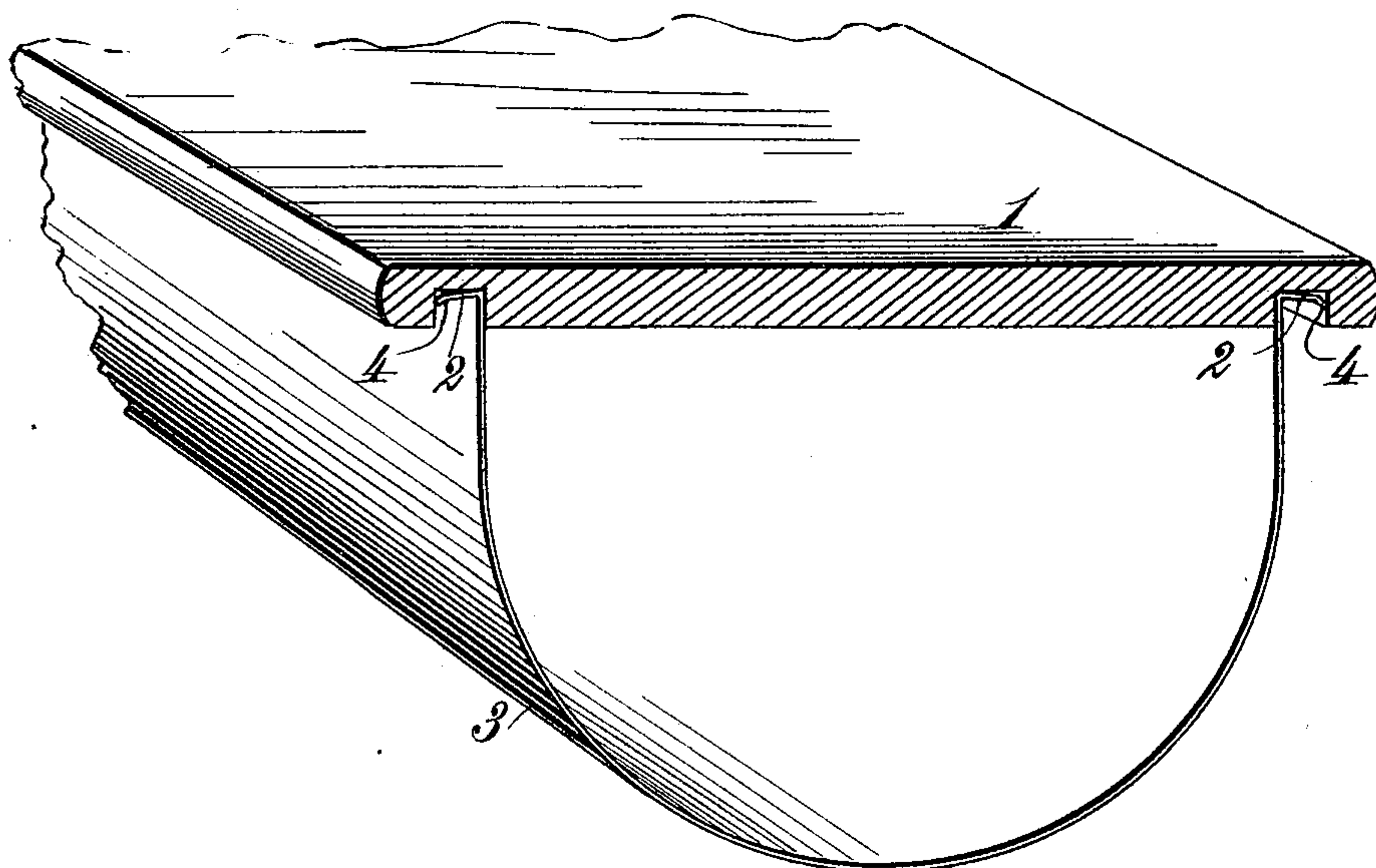
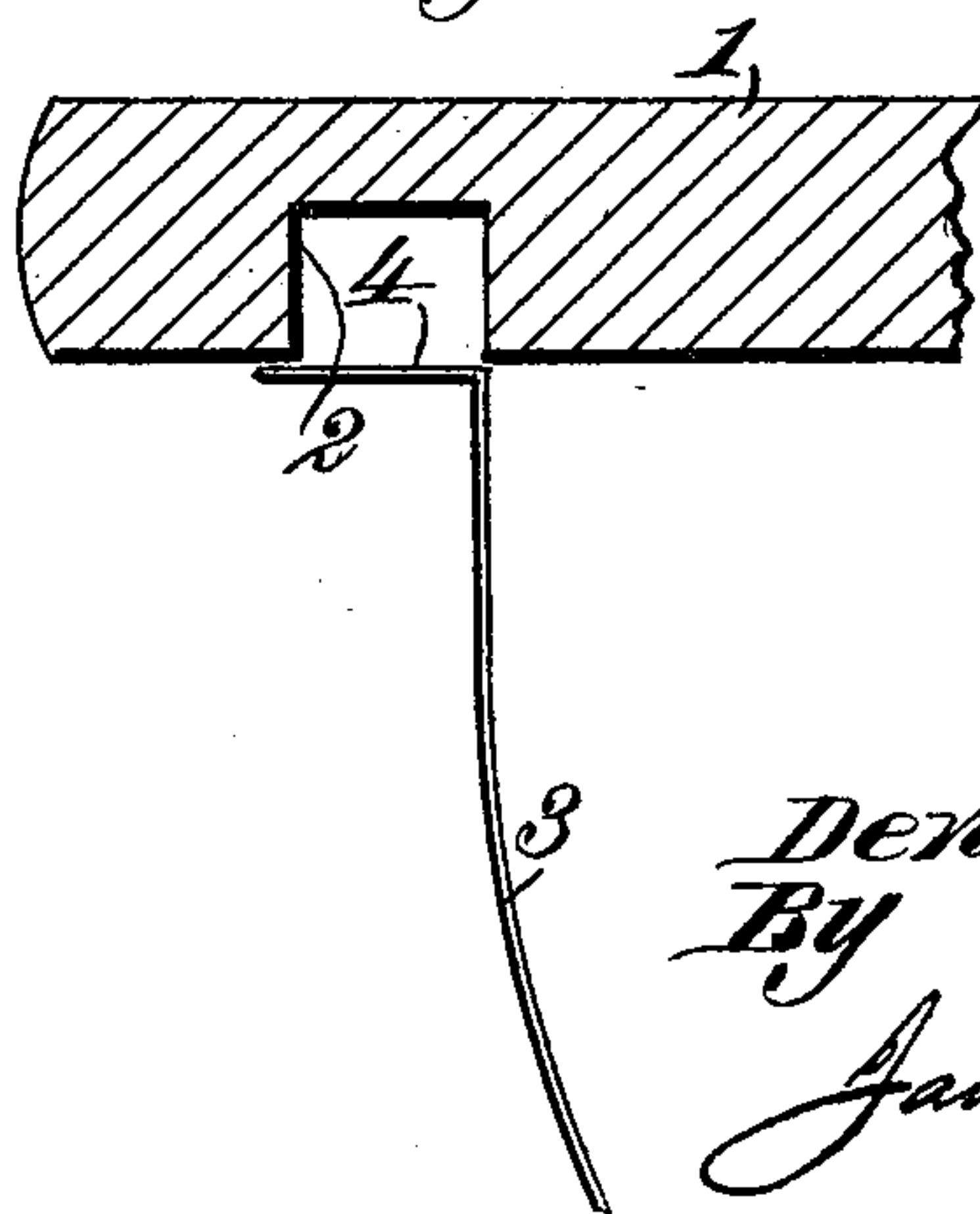


Fig. 2.



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UNITED STATES PATENT OFFICE.

DENNIS PARKS, OF DUQUOIN, ILLINOIS, ASSIGNOR OF ONE-HALF TO JOHN E. MITCHELL, OF ST. LOUIS, MISSOURI.

MILL-SPOUT.

SPECIFICATION forming part of Letters Patent No. 625,984, dated May 30, 1899.

Application filed March 21, 1899. Serial No. 709,963. (No model.)

To all whom it may concern:

Be it known that I, DENNIS PARKS, a citizen of the United States, residing at Duquoin, in the county of Perry and State of Illinois, have invented new and useful Improvements in Mill-Spouts, of which the following is a specification.

This invention relates to mill-spouts, and has for its object to provide an improved, simple, and inexpensive construction of such spouts as are employed in flour-mills, elevators, and elsewhere for conducting grain and its products or other granular or pulverulent materials.

My invention comprises a mill-spout composed of a trough-shaped metal bottom or body portion and a flat wooden top secured to and covering said metallic trough.

In the annexed drawings, illustrating the invention, Figure 1 is a cross-sectional perspective of my improved mill-spout. Fig. 2 is a detail view.

Referring to the drawings, the numeral 1 designates a flat wooden top piece having parallel longitudinally-arranged grooves 2 formed in its under side at or near the side edges of said top.

The bottom and sides of the spout are composed of a trough-shaped metal body 3, having its side edges provided with flanges 4 to engage in and interlock with the grooves 2 of the wooden spout-top. By making the flanges 4 somewhat wider than the grooves 2, as shown in Figs. 1 and 2, the parts will readily interlock when the flanges are driven or forced into said grooves, and thus the top and body portions of the spout are securely connected. Obviously any other suitable means may be adapted for fastening the flanges 4 into the grooves 2 of the spout-top. The frictional interlocking of the flanges and grooves, as shown, is, however, very simple and inexpensive, as well as being thoroughly effective and reliable.

The mill-spouts in common use are either made of metal in cylindrical cross-section or else of wood in rectangular cross-section, and tin-lined spouts have also been proposed. My improved mill-spout combines the advantages of those heretofore known, and by rea-

son of its peculiarities of construction, as set forth, it is more simple and less expensive.

It will be obvious that it requires a tinner or one skilled in working sheet-iron to construct the cylindrical metal mill-spout, and it is usually a considerable expense to fit such spouts in mills and elevators and make the necessary turns, &c. Another objection is that in flowing soft material in flour-mills all spouts are liable to choke and clog up when suddenly overloaded. The method usually employed under such circumstances to start the material flowing again is to pound or jar the spout, which in a very short time bends the metal out of shape, and this of course interferes with the flow of the material. For this and other similar reasons the square wooden spouts are preferable and are generally used in flour-mills where the material to be flowed is of a soft and adhesive nature. Square wooden spouts are usually lined with smooth metal, which gives the same capacity as the cylindrical metallic spout for flowing soft material, and the square wooden part will stand a great amount of pounding, rough treatment, &c., without getting out of shape. Besides it is an easy matter to provide hand-holes or openings in the top of such spouts, so that the material can be examined at any point and started in case of a choke-up. For the reasons mentioned the wooden spouts lined with metal are generally used; but they are objectionable on account of the great expense of constructing, fitting, and putting up in their proper place in the mill. It requires a great deal of lumber that must be tongued and grooved and afterward screwed together, and it also requires high-priced skilled workmen to properly put such spouts together and to fit them to their proper places in the mill, and as there is a large amount of spouting in all cereal-mills the expense in constructing such plants is thus made unnecessarily large. It will be readily seen that my invention has practically all the advantages of the square wooden spout lined with metal, and at the same time it requires only about one-fourth the amount of wood and about the same amount of metal and no screws to construct the spout, and it does not

necessarily require skilled workmen to fit it to its place in the mill. It is therefore about fifty per cent. cheaper and is not as clumsy as the square wooden spout and makes as
5 nice appearance in the mill as the cylindrical metal spout.

What I claim as my invention is—

1. A mill-spout comprising a flat wooden top and a metallic trough-shaped bottom or
10 body portion directly attached to the under side of said flat top, substantially as described.

2. A mill-spout comprising a flat top having parallel longitudinally-arranged grooves in its under side, and a trough-shaped bottom
15 or body portion having flanges engaged in said grooves of the spout-top, substantially as described.

3. A mill-spout comprising a flat top having parallel longitudinally-arranged grooves

in its under side, and a trough-shaped bottom 20 or body portion provided with side flanges of greater width than the grooves of said spout and having an interlocking engagement therewith, substantially as described.

4. A mill-spout comprising a flat wooden 25 top having parallel longitudinally-arranged grooves in its under side, and a trough-shaped metal bottom or body portion having side flanges engaged in said grooves of the spout-top, substantially as described. 30

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

DENNIS PARKS.

Witnesses:

ROBT. O. LAKIN,
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