L. H. DICKELMAN.

EAVES TROUGH.

APPLICATION FILED OCT. 27, 1908.

932,254. Patented Aug. 24, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

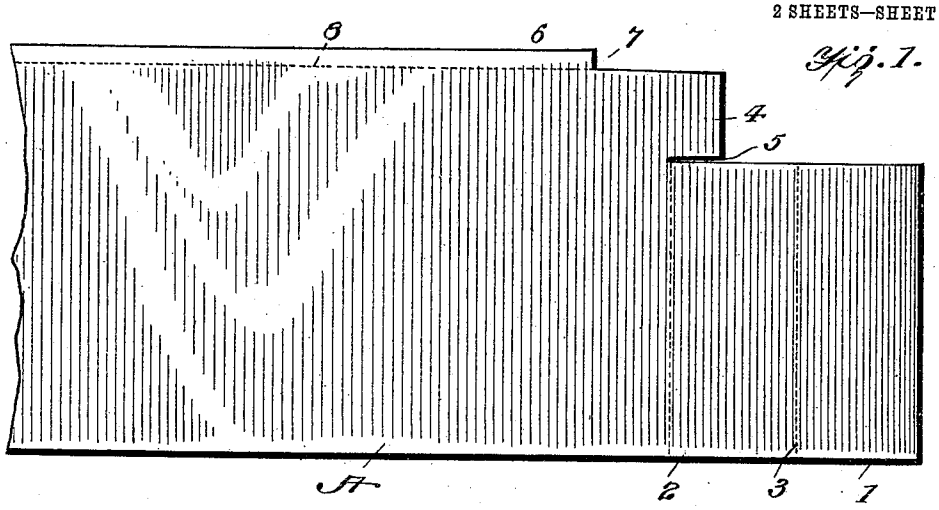


Fig. 2.

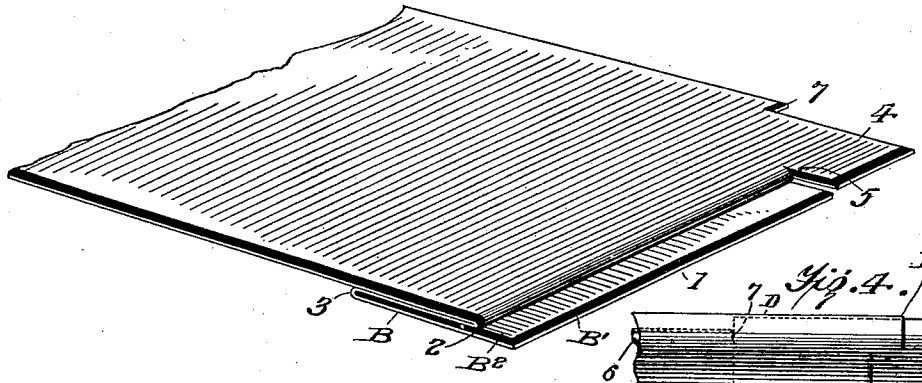


Fig. 4.

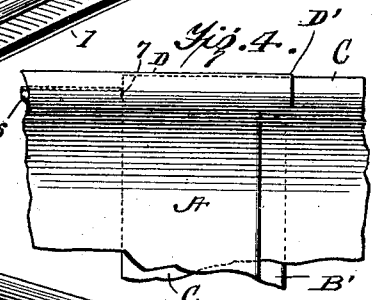
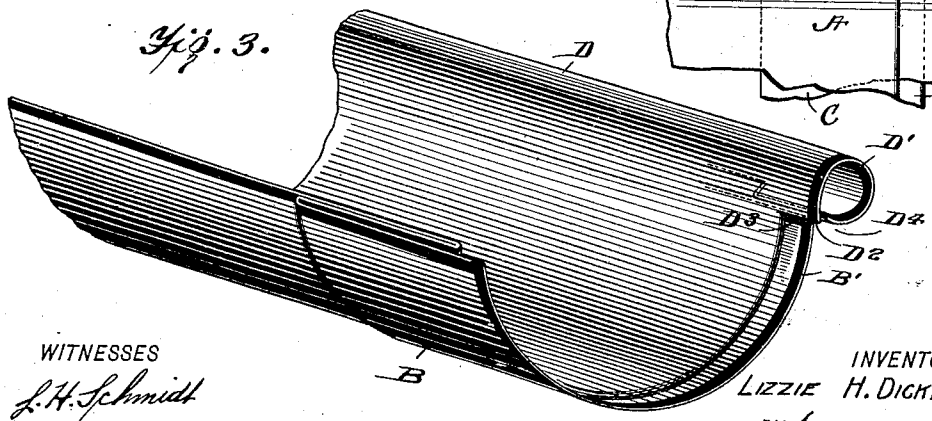


Fig. 3.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 5.

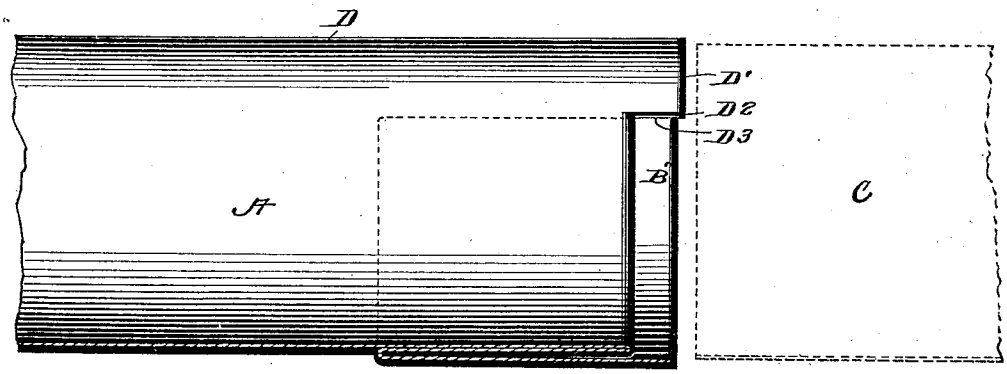


Fig. 8.

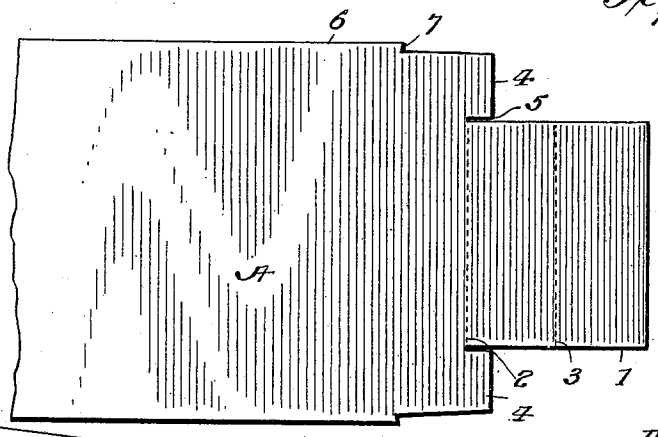


Fig. 7.

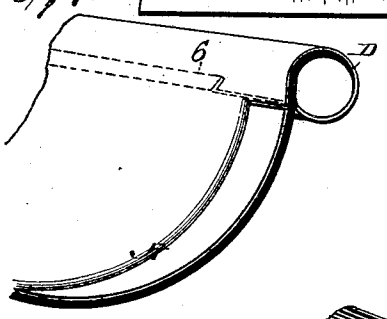
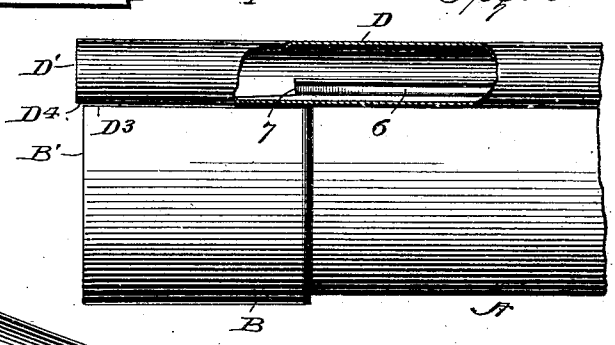


Fig. 6.



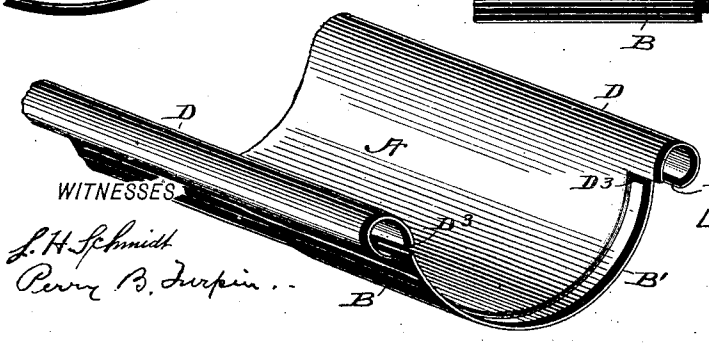


Fig. 9.

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UNITED STATES PATENT OFFICE.

LIZZIE H. DICKELMAN, OF FOREST, OHIO, ASSIGNOR TO THE DICKELMAN MANUFACTURING COMPANY, OF FOREST, OHIO.

EAVES-TROUGH.

932,254. Specification of Letters Patent. Patented Aug. 24, 1909.

Application filed October 27, 1908. Serial No. 459,776.

To all whom it may concern:

Be it known that I, LIZZIE H. DICKELMAN, a citizen of the United States, and a resident of Forest, in the county of Hardin and State of Ohio, have invented certain new and useful Improvements in Eaves-Troughs, of which the following is a specification.

This invention is an improvement in slip joint eaves trough, more particularly an improvement on the Dickelman-Bowers patent slip joint eaves trough, No. 508,366, which patent is owned and controlled by me, as shown by records in Patent Office, and has for its object to provide a construction whereby to increase the strength and rigidity of the trough when the sections are coupled together and at the same time to provide a construction in which the process of manufacture is simplified and in which the sections may be more quickly and easily put together and disconnected when desired. It will be noted that I retain in the construction of my trough the projecting bead and projecting slip joint covered in the original Dickelman-Bowers Patent No. 508,366, and that my invention consists in certain novel constructions and combinations of parts increasing the strength and rigidity of the trough when the sections are joined together and making the jointure easier and quicker to accomplish, all as will be hereinafter described and claimed. It will be noticed that I also adapt my invention so as to cover both single and double bead trough, that is, trough formed with bead on either one side or on both sides as may be desired.

In the drawings, Figure 1 is a top plan view of a blank partly cut away, from which the pocketed section or slip joint of my trough is formed. Fig. 2 is a perspective view showing the first step in the production of the trough section from the blank as shown in Fig. 1. Fig. 3 is a detail perspective view of the end of trough showing completed pocket section or slip joint with projecting hollow bead formed on one side of trough. Fig. 4 is a detail top plan view partly cut away showing two sections coupled together. Fig. 5 is a vertical longitudinal section of the pocket section or slip joint, the meeting section being indicated by dotted lines. Fig. 6 is a side view partly broken away of the beaded face of the pocket section or slip joint showing the hollow bead at point of juncture. Fig. 7 is a detail perspective view showing one of the end beads. Fig. 8 is a top plan view of the blank as notched for making double bead trough, and Fig. 9 is a perspective view of the pocket section or end of the slip joint of the double bead trough as it appears when finished, showing projecting hollow bead and projecting slip.

In carrying out my invention I may employ the blank shown in Fig. 1, in producing single bead trough such as shown in Fig. 3, having the bead at one side only, or I may use the blank shown in Fig. 8, in producing double bead trough having beads at both edges as shown in Fig. 9.

In the construction shown in Fig. 1, the blank A is suitably cut to produce the pocket extension 1, which is folded on the lines 2 and 3 to produce the pocket B below the body of the trough, the wing 4 projecting in the same direction as the wing 1, but to a less extent and separated throughout its length by an incision 5 from the said wing 1 and the lateral flange extension 6 terminating at 7 in rear of the bead extension 4 and adapted to be folded on the line 8 to the position shown in Figs. 6 and 7 to form a stop for engagement by the end of the meeting section C when the trough sections are coupled together as shown in Fig. 4. In forming the trough sections from the blank, the latter is folded on the lines 2 and 3 to bring the pocket construction or slip joint to the position shown in Fig. 2. The stop flange 6 is then folded under on the line 8, and the bead D is formed by turning that portion of the blank in line with the bead extension 4 thus bringing the bead to the position shown in Fig. 3, and the blank may be bent to the trough shape shown in Fig. 3 either before or after the bending of the bead D. The trough section, when thus completed, provides a pocket at B, to receive the end of the meeting section C, and also provides a bead D which projects forwardly to or in advance of the front edge B′ of the lower plate B^2 of the pocket, and such projecting end of the bead is formed at its extremity D′ approximately on a line at a right angle to the direction of length of the trough with its inner forward corner D^2 fitting snugly down against the face of the meeting trough C, thus adding strength and rigidity to the joint without interfering with the operation of the bead extension as a

guide for the introduction of a mating bead on the meeting section C of the trough as will be understood from Fig. 4 of the drawings. This bead forms an extension beyond the body of the trough with its inner edge D^3 and its end edge D′ at right angles to each other and preserves in the overlapping portion of the bead the maximum of metal and produces a bead as shown in Fig. 3, the opposite edges D^3 and D^4 of which nearly meet, being spaced apart just sufficiently to permit the free introduction of the meeting section in coupling the trough sections together in the operation of the invention.

In producing the special construction of pocketed trough section before described, I form the blank A, as before suggested, with the pocket wing 1, and with the bead wing or extension 4, the side edges of the latter being parallel and at right angles to the end edge thereof, and the said bead extension being separated throughout its length by a longitudinal incision in the blank, from the pocket extension, so the fold 2 of the pocket extension may be produced at the base of the bead extension as best shown in Figs. 1 and 2 of the drawings.

As will be understood from Figs. 8 and 9, the blank may be formed with the bead extensions on opposite sides of the pocket extension or wing to produce when properly bent, the double beaded trough illustrated in Fig. 9 of the drawings.

I claim—

An eaves trough having at one end a turned under portion forming a pocket or slip joint projecting beyond the body portion of trough and having at its edge a hollow bead the extremity of which projects forwardly beyond the connecting fold of the pocket, the inner edge or flange of said bead extension having been cut away to admit the free entry of the bead on the connecting trough section and the outer edge of the bead being provided with an inturned flange terminating at one end at a point back from the folded connection of the pocket with the body of the trough and adapted to form a stop for entering bead of meeting section, substantially as set forth.

LIZZIE H. DICKELMAN.

Witnesses:

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O. C. CAMERON.