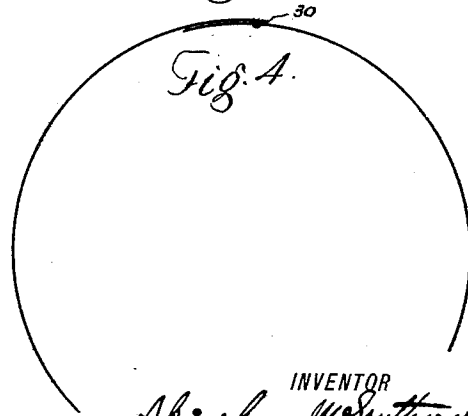
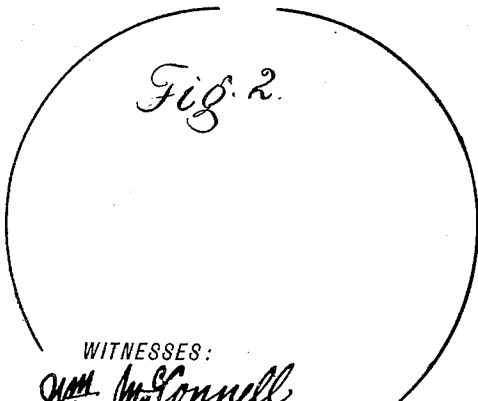
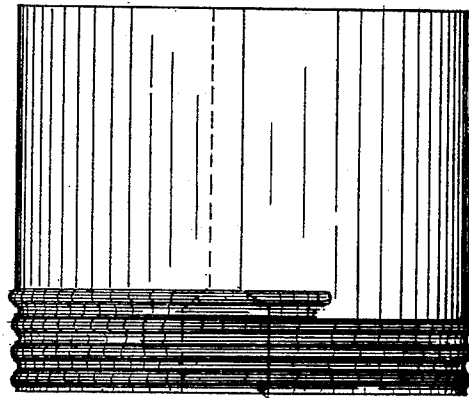
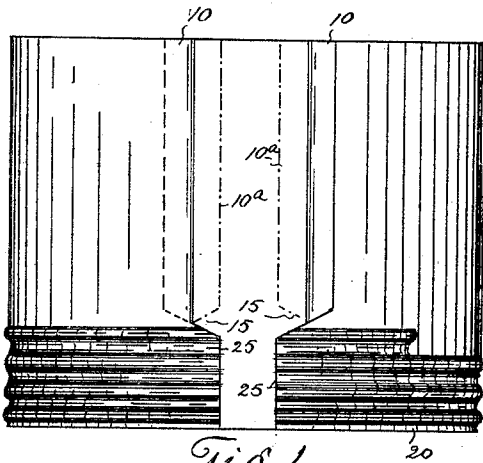
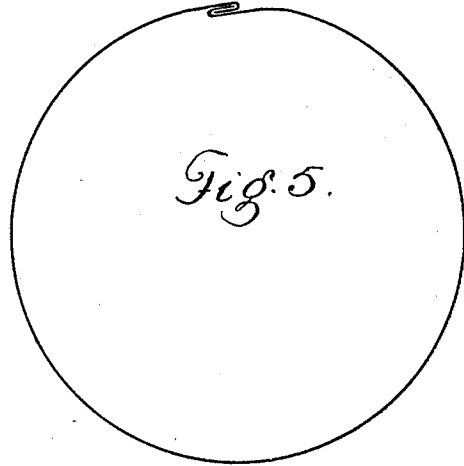
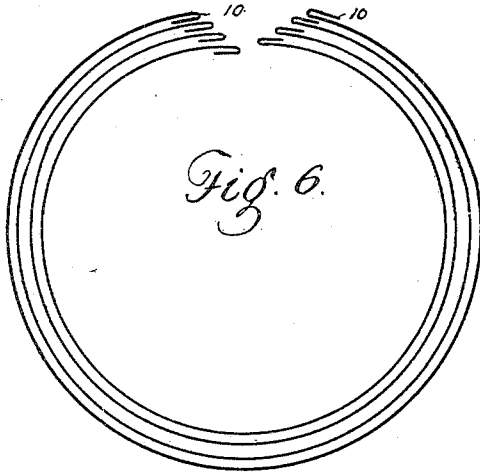


(No Model.)

A. M. SOUTHARD.
SCREW BEADED SHEET METAL PIPE.

No. 467,999.

Patented Feb. 2, 1892.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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SCREW-BEADED SHEET-METAL PIPE.

SPECIFICATION forming part of Letters Patent No. 467,999, dated February 2, 1892.

Application filed March 30, 1891. Serial No. 386,897. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM M. SOUTHARD, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Screw-Beaded Sheet-Metal Pipes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in sheet-metal pipes or tubes, and particularly to screw-beaded pipe for shipment in knockdown shape. This screw-beaded pipe is formed with screw-beads upon the joining extremities of the sections by the use of the screw-beading machine for which application for patent was made by George W. Smith and myself jointly, said application having been filed September 16, 1890, and allowed October 30, 1890, Serial No. 365,190.

It is well known to those who handle sheet-metal pipe, particularly stove-pipe, that all such pipe is shipped from the factory in the so-called "knockdown" shape—that is, with the longitudinal joints open, so that the sections can be telescoped together, whereby a number of them are made to occupy the same or but little more space than a single section with the longitudinal joints closed. This will be readily understood, and though only for convenience in shipping this knockdown feature is absolutely indispensable in order to make sheet-metal pipes a commercial article.

In preparing this pipe for shipment the longitudinal opposite edges of the pipe are turned in opposite directions—that is, one out and the other in—so that they will lock together and may be pressed down into a perfect joint or seam with but little trouble after they are received by the retail dealer. It was found that by forming screw-beads upon the extremities of this pipe in knockdown shape these beaded edges would have to be dispensed with because hooked edges could never be formed into an interlocking joint

after the screw-bead was formed. Hence the material which would have formed these hooked edges was at first cut off at the extremity of the section preparatory to forming the screw-bead, so that when the longitudinal joint of the section was formed the screw-beaded edges simply came together or met without forming a connected joint. This left the pipe weak at the extremities and easily disjoined or separated by a longitudinal pull, making the screw-joint but little more secure than the ordinary sliding joint. To overcome this difficulty is the object of my present invention, and this I accomplish by leaving the material of the pipe intact for the width of the screw-bead, whereby the screw-beaded edges overlap when the longitudinal joint is complete, thus making the joint at these extremities sufficiently secure for all practical purposes, and in fact as secure as any other part of the longitudinal joint.

The invention will be fully understood by reference to the accompanying drawings, in which—

Figure 1 is a top view of a section of screw-beaded pipe in knockdown shape ready for shipment and embodying my invention. Fig. 2 is an end view of the same. Fig. 3 is a top view of the same with the longitudinal joint formed, the pipe being ready for use. Fig. 4 is an end view of the same. Fig. 5 is an end view of a piece of pipe, showing the usual method of forming the edge joint. Fig. 6 illustrates the manner of shipping these pipe-sections in knockdown shape.

In the views, wherein similar reference characters indicate corresponding parts, let the numeral 10 designate the overturned hook edges, one edge being turned outward, as shown in full lines, and the other inward, as shown in dotted lines in Fig. 1. The broken lines 10^a show the position of these edges before they are overturned.

The numeral 15 designates the space left by cutting out a triangular portion of the metal at the edge between the body portion of the pipe and the extremity upon which the screw-bead is formed. The edges of this body portion are then overturned, as shown at 10, leaving the projections 25. It will be ob-

served that it is not necessary to cut out the material, as shown at 15, since simply cutting through it will answer every purpose, as the edges 10 can then be turned over, as shown.

5 It is thought preferable, however, to cut out a small piece of metal, as it does away with sharp corners and makes the work smoother and neater. The screw-bead 20 is then formed, when the pipe is ready for shipment, in the

10 same manner as the old style of pipe illustrated in Fig. 6.

The section illustrated in Fig. 1 is joined at the edges, as shown in Fig. 3, by hooking edges 10 together and pressing them down smooth, when projections 25 overlap, forming a beaded joint sufficiently smooth for all practical purposes. The inner extremity of two sections forming a screw-joint is secured by a rivet 30, as shown in Figs. 3 and 4. This

15 gives additional security and prevents any possible danger of the screw-joint being separated except by unscrewing.

Having thus described my invention, what I claim is—

A new article of manufacture consisting of sheet-metal pipe-sections having screw-beaded extremities, the longitudinal edges of each section being united in an interlocking joint in the body of the section and in an overlapping joint at the screw-beaded extremities, the overlapping portion of the joint being secured by a rivet and formed without crossing the edges, whereby it becomes practicable to ship the sections in knockdown shape and afterward unite the edges of these sections and then joint their extremities in continuous pipe-lengths, as set forth.

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

ABRAHAM M. SOUTHARD.

Witnesses:

WM. McCONNELL,
LOUIS E. P. WILKES.