(No Model.)

J. W. ABRAHAMS.

SHEET METAL PIPE.

No. 526,663. Patented Sept. 25, 1894.

Fig. 1.

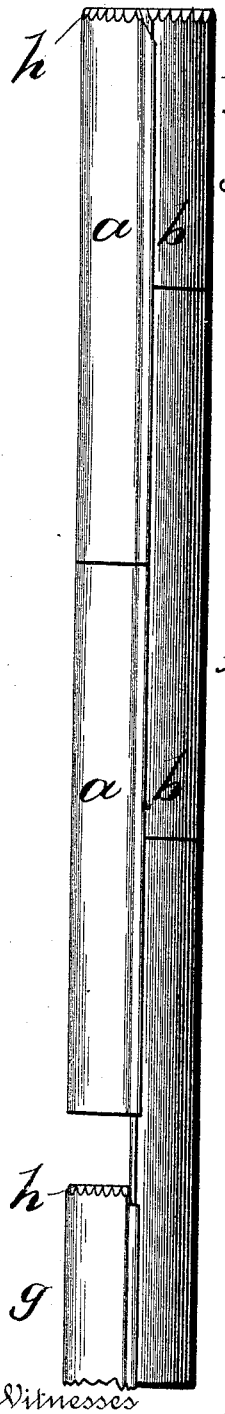


Fig. 2.

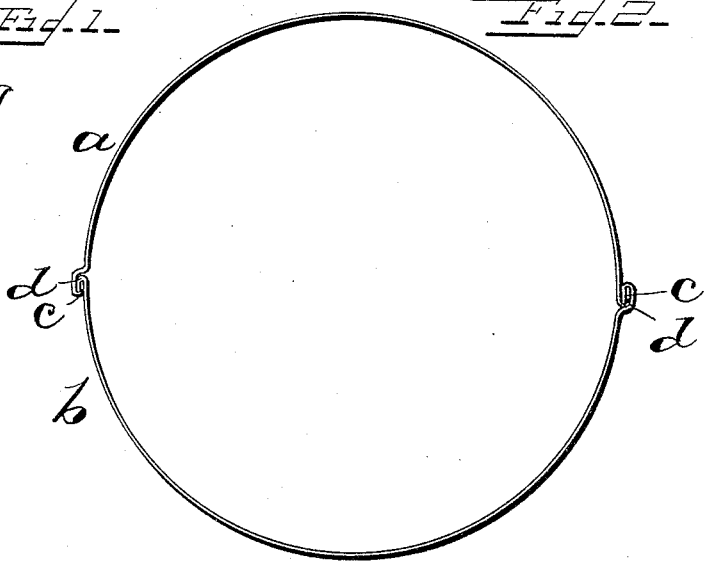


Fig. 3.

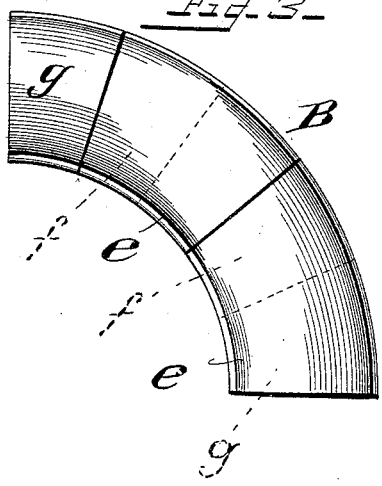
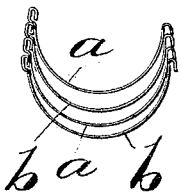


Fig. 4.



Witnesses
G. A. Tauberschmidt.
M. A. Reinohl

Inventor
John W. Abrahams
By D. C. Reinohl
Attorney

UNITED STATES PATENT OFFICE.

JOHN WILLIAM ABRAHAMS, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO HENRY A. MARLIN, OF SAME PLACE.

SHEET-METAL PIPE.

SPECIFICATION forming part of Letters Patent No. 526,663, dated September 25, 1894.

Application filed December 29, 1893. Serial No. 495,096. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM ABRAHAMS, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Sheet-Metal Pipe; and I do hereby 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.

My present invention relates to sheet metal pipe such as heater, or stove pipe, and has for its object certain improvements in construction whereby the pipe can be economically handled, cheaply transported and put together at the place where it is intended to be used without the employment of skilled labor or the use of especially designed tools, and a stiff or rigid pipe formed without the use of rivets or solder, as will be fully disclosed in the following specification and claim.

In the accompanying drawings which form part of this specification, Figure 1 represents a side elevation of a sheet metal pipe embodying my invention; Fig. 2, an end view on an enlarged scale; Fig. 3, a side elevation of an elbow, and Fig. 4 an end view of a nest of semi-sections of pipe.

Reference being had to the drawings and the letters thereon, A indicates a piece of sheet metal pipe composed of semi-cylindrical sections *a b*, each of which is provided with flanges on their adjacent edges to form a slip joint to put the pipe together and secure it. The section *a* as shown is provided with inwardly bent flanges *c c* on its edges, and the section *b* with outwardly bent flanges *d d* on its edges. The style or character of the joint may be varied without departing from the scope or spirit of my invention.

B, indicates an elbow also constructed of the same character of semi-cylindrical sections *e f*, the latter being shown in dotted lines, and the former in full lines.

In putting the pipe together the semi-cylindrical sections are made to overlap each other so that joints are broken in the center of each semi-section on opposite sides of the pipe alternately, and the pipe completed at each end and on opposite sides of the pipe with a half length *g* of a section, and in constructing an elbow the same course is pursued. The flanges *c c* and *d d* are turned in the usual way by means of an ordinary brake, and one end of the section crimped as shown at *h* to cause said section to readily slip under the end of the section with which it comes in contact.

By the construction shown the semi-sections *a b* are formed at the factory of any desired diameter and shipped to the retailer or jobber nested in suitable crates, and from the retailer or jobber they are taken in the same condition (nested) to the building where they are to be used and there put together to form pipe or conduits of any desired length, thus avoiding the necessity of forming the pipe or conduit in a shop and transporting it to a building as a bulky body requiring a great deal of room and the exercise of care to prevent damage to the pipe in handling. By overlapping the semi-sections, one braces the other and a very rigid pipe is formed without the use of rivets or solder, and the pipe may at any time be taken apart for cleaning or removal. No skilled labor is required to put the pipe together, nor are specially designed tools necessary, as all that is required to be done, is to push the semi-sections upon each other by joining their flanges until a pipe of the proper length has been formed. The seam requires no hammering to make it hold one semi-section upon another, and therefore requires no unlocking of lugs, cutting of rivets or unsoldering of the seams.

The pipe or elbow thus constructed is a perfect "knock down" and carries with it all the advantages of this class of structures, and may be made in various cross sectional forms, such as square, hexagonal, or octagonal.

Having thus fully described my invention, what I claim is—

A knock-down sheet metal pipe constructed of separable and similar semi-sections adapted to be nested for transportation and to be assembled at the place required for use; each of said sections being provided with semi-slip joints loosely interlocked to form a pipe, and the sections assembled to alternate with each other.

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

JOHN WILLIAM ABRAHAMS.

Witnesses:

JNO. B. CHAPMAN,

FLORA DOWLER.