

(No Model.)

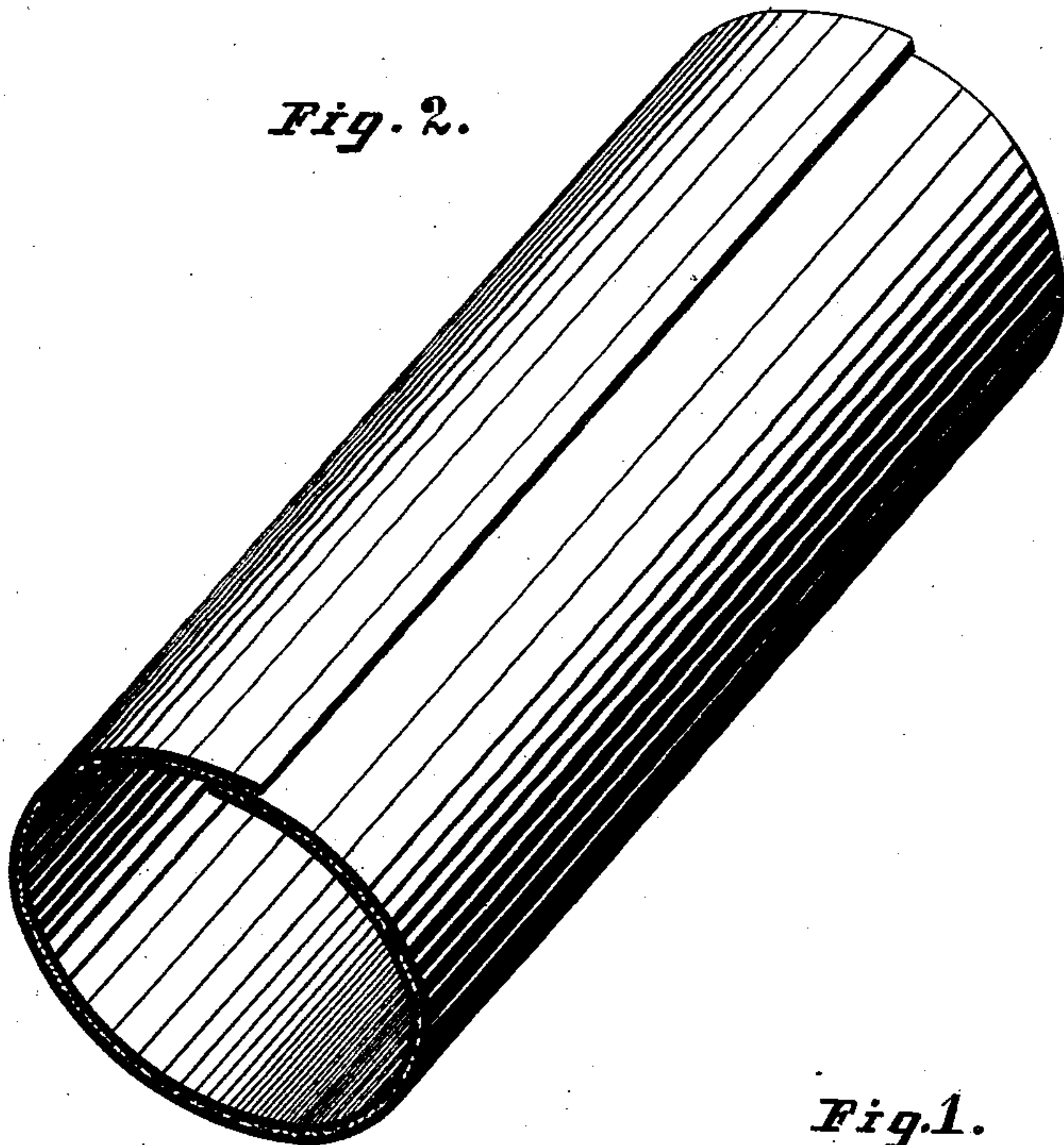
J. P. CULVER.

WATER, GAS, SEWER OR DRAIN PIPE.

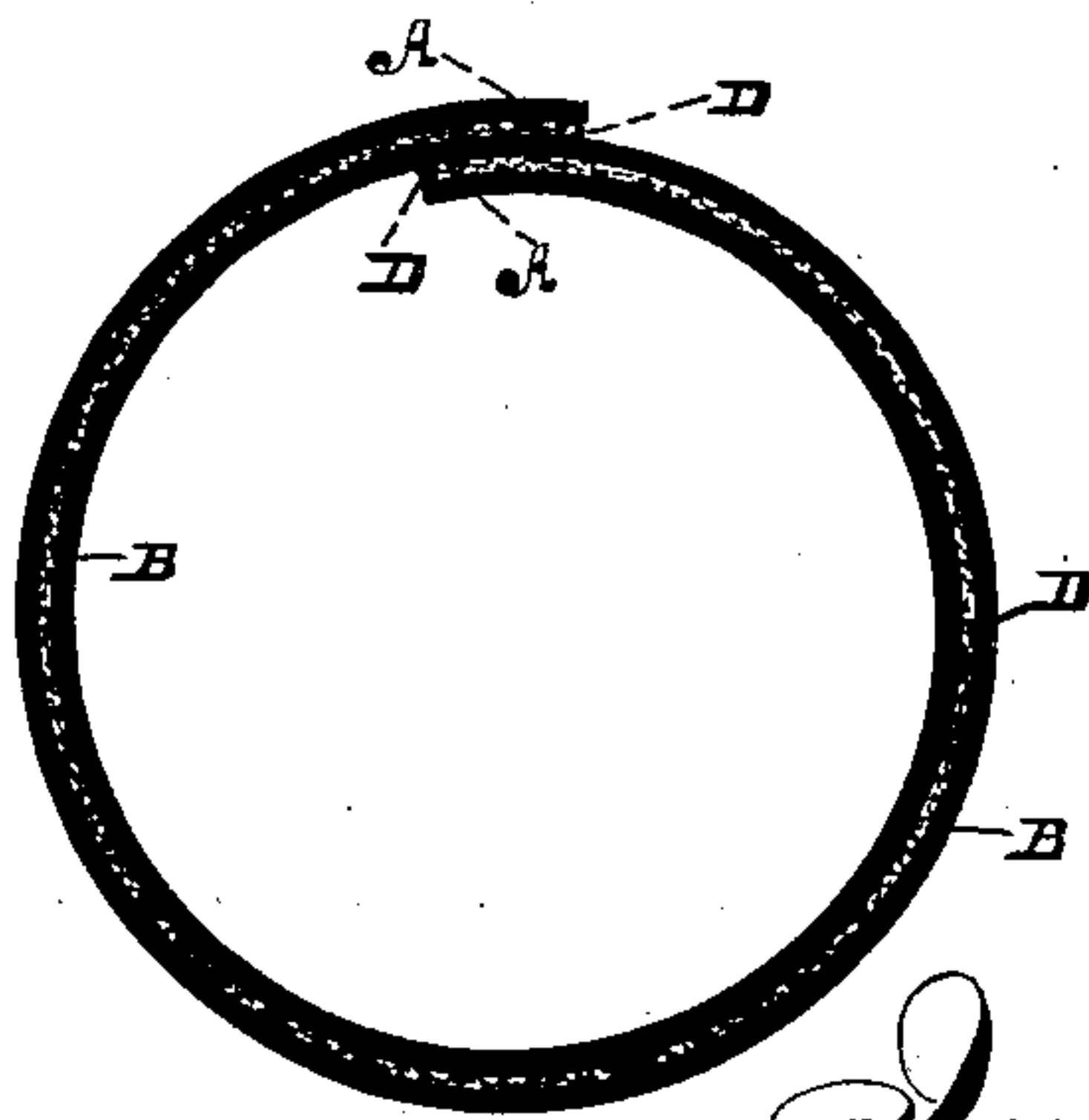
No. 265,306.

Patented Oct. 3, 1882.

*Fig. 2.*



*Fig. 1.*



Witnesses

Geo. H. Strong.  
Frank A. B. B. B.

Inventor  
John P. Culver  
By Dewey & Co.

# UNITED STATES PATENT OFFICE.

JOHN P. CULVER, OF TUCSON, ARIZONA TERRITORY.

## WATER, GAS, SEWER, OR DRAIN PIPE.

SPECIFICATION forming part of Letters Patent No. 265,306, dated October 3, 1882.

Application filed September 24, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN P. CULVER, of Tucson, county of Pima, and Territory of Arizona, have invented new and useful Improvements in Water, Gas, Drain, or Sewer Pipes; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in the formation of continuous pipe for the purpose of conveying water, gas, or other fluids or liquids; and it consists of sheets of metal sufficiently long to form the sections, and of a width to form two or more thicknesses when rolled into a pipe of suitable size. The sections are formed by rolling the sheets in a bath of molten solder, which, flowing between the thicknesses of the metal, unites it into a solid multiple-walled tube during the operation of rolling, and, without further treatment of any kind, having the outer surface finished with a coating of tin. The pipe-sections thus prepared may be joined in any desired manner to form the lengths required when laid.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is an end view of my pipe. Fig. 2 is a longitudinal view.

B B are sheets of metal, which, if of tin, zinc, or galvanized iron, will need no preliminary preparation, but if of plain sheet-iron or other metals must first be prepared to receive the solder or uniting metal. When the sheets are in readiness they are rolled in a bath of melted solder which is of sufficient length to receive the sections, and are rolled into a pipe of the desired size, a quantity of the melted solder being carried forward and spread between the laps of the sheet as it is rolled up, thus coating and uniting the laps, so that when cold the whole will be united into a solid body, D, con-

sisting of two or more laps or thicknesses of sheet metal having the interior and exterior edges, A A. These sections are left open at both ends, and when they are to be used any number of them may be united endwise by suitable couplings, so as to form a continuous tube or pipe of any desired length.

I am aware that short cylinders of metal have been placed one within another with an intervening fusible metal and afterward sweated together, and also that sheets of metal have been first coated with tin, then coiled into a short cylinder, and finally sweated together previous to applying heads, so as to form containing-vessels, and I do not claim this method, nor the containing-vessels when completed.

I am also aware that in a former patent issued to me October 14, 1879, tubes or pipes were formed by rolling up sheets of metal with an intervening body of asphaltum; but this is not such a pipe as is contemplated in my present patent, as there is no bond or union between the layers of metal, and the heat of the sun will cause the parts to separate.

What I do claim as new, and desire to secure by Letters Patent, is—

As a new article of manufacture, an open-ended tube consisting of a sheet of metal rolled or overlapped to form the required diameter, and provided between the folds with solder suitably applied and adapted to set, thereby constituting a homogeneous solid cylinder, substantially as set forth.

In witness whereof I have hereunto set my hand.

JOHN P. CULVER.

Witnesses:

HENRY CAMPBELL,  
R. K. ESTILL.