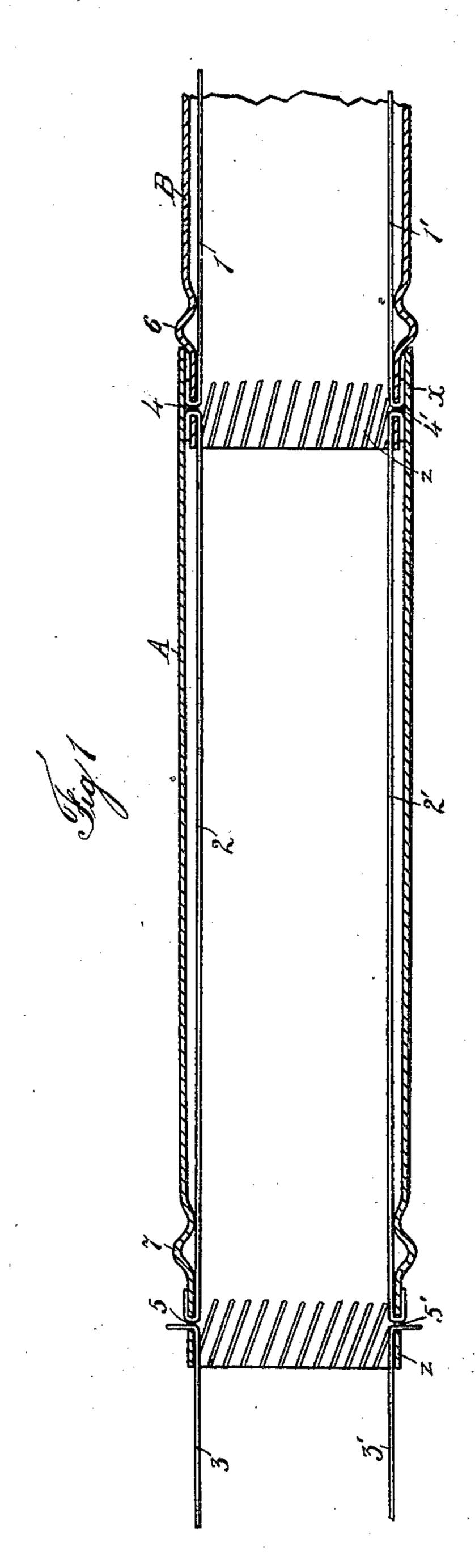
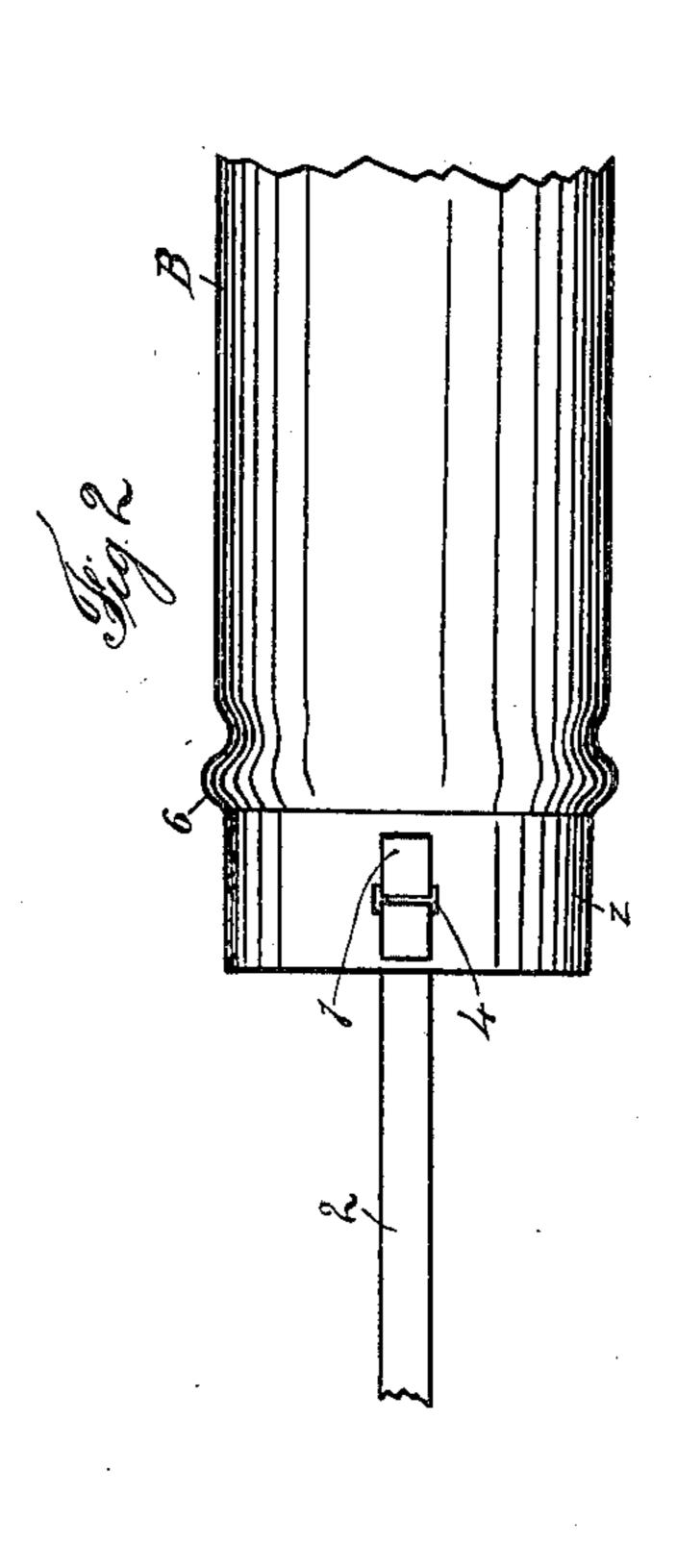
## A. J. WELANDER. STOVEPIPE.

(Application filed Nov. 26, 1900.)

(No Model.)





WITNESSES:

C. J. Davenport.

INVENTOR

Andrew G. Welander Gro. W. Just

ATTORNEY.

## UNITED STATES PATENT OFFICE.

ANDREW J. WELANDER, OF OMAHA, NEBRASKA, ASSIGNOR OF TWO-THIRDS TO NILS ANDERSON AND JOHN PERSSON, OF SAME PLACE.

## STOVEPIPE.

SPECIFICATION forming part of Letters Patent No. 672,342, dated April 16, 1901.

Application filed November 26, 1900. Serial No. 37,815. (No model.)

To all whom it may concern:

Be it known that I, Andrew John Well-Ander, residing at Omaha, in the county of Douglas and State of Nebraska, have invented 5 certain useful Improvements in Stovepipes; and I do hereby declare that the following is a full, clear, and exact description thereof, 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, which form a part of this specification.

This invention relates to an improvement

in stovepipes.

The object of my invention is to provide a stovepipe the various sections of which may be bound and securely united to the other, so that when horizontally suspended a tight, stiff, and rigid section its full length is provided.

20 vided. The invention embodies, essentially, a stovepipe-section, as shown at A, for instance, which is perfectly plain at one end, as shown at x, while the other end is provided with an 25 outwardly-extending bulge 7, from which extends a short cylindrical section z. In Figure 1 the second broken pipe-section B has the bulge identified by the number 6, these bulges forming abutting shoulders, against which 30 the plain cylindrical end of the adjacent pipesection, as A, for instance, rests, as shown. At suitable points the short or stub cylindrical section z is provided with preferably two openings at opposite points, as is shown 35 at 55' in the pipe-section A, and at 4, as shown in the pipe-section B in Fig. 2. From this it will be seen that my invention embodies, as far as described, a pipe-section of any suitable size, length, or material, which is provided 40 at one end with an extending bulge to form a shoulder, from which shoulder extends a stub cylindrical section. In order to secure these pipe-sections, a number of narrow tin strips 2 are used, which are of a length ap-45 proximating the length of each pipe-section, and they are bent at their ends to form hook terminations, which are placed into the open-

ings 4. The pipe-section B, for instance, in Fig. 1, has the binding strips or keepers 1 bent around at one end and inserted into the opening 4, the strip 1 then extending toward

the cylindrical end of the pipe B. Into the same hole or opening 4 is secured a second strip 2, which also has its end hooked, and extends in an opposite direction, so as to ex- 55 tend into the adjacent pipe-section A. This pipe-section is provided with the opening 5, into which the end of the strip 2 is extended and bent. The securing of the pipe A to the pipe B, however, acts as a lock for the ends 60 of the strips 1 and 2, as these stubends z are so sized that when the adjacent pipe comes upon the same the recurved ends of the strips are securely locked, as is shown in Fig. 1. The next series of strips 3 3' is then inserted, 65 bent over, and locked by means of the subsequent pipe-section. Opposite the strips 1 and 2 are held the binding strips or keepers 1' and 2', so that after the pipe-sections are all locked they form a stiff and rigid section, 70 as the keepers are locked and prevent sagging of the pipe. In extending through elbows the same operation may be followed, though the elbows, as a rule, are made in short stiff sections, which are sufficiently strong 75 and rigid so as not to need any reinforcing. While I have shown flat tin strips, which may be taken from waste found in any tin-shop, it is to be understood that ordinary wire could be used, though they are not locked quite as 80 sufficiently as the flat tin strips.

While I have described and shown my invention in connection with a stovepipe, it is of course understood that this method and means could be used in connection with any 85 other sort of a pipe, such as water or drain

pipes.

It will be noticed that the securing mechanism is entirely hidden, and in no way detracts from the appearance of the pipe after 90 it is assembled.

Having thus described my said invention, what I claim as new, and desire to secure by

United States Letters Patent, is—

The combination with a stovepipe provided 95 at one end with an annular outwardly-extending bulge, the end near the bulge being crimped to decrease its circumference, said crimped end being provided with openings at opposite points, of four counterpart tin strips 100 having one end bent through said openings, two strips within each of said openings, two

of said strips extending in one direction within said pipe, and two in opposite directions beyond said crimped pipe end, and a second counterpart pipe - section provided with a crimped end and counterpart openings, arranged so that its plain end will encompass the crimped end of said first-mentioned stovepipe to hide said bent ends, the ends of the two strips extending beyond said first-men-

tioned pipe in turn being bent through the 10 openings within the crimped end of said last-mentioned pipe, as and for the purpose set forth.

Signed in presence of two witnesses.

ANDREW J. WELANDER.

Witnesses:

NILS ANDERSON, JHN. PERSSON.