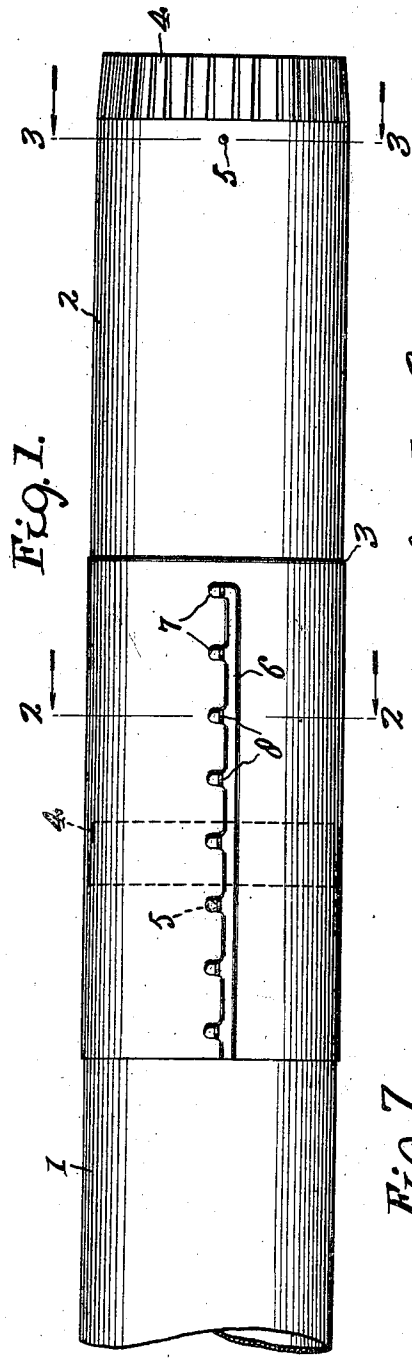
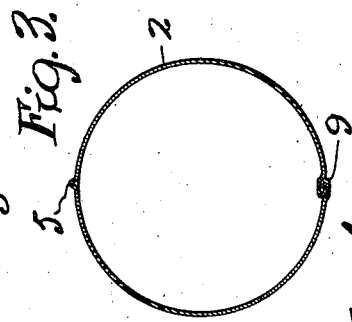
Mar. 6, 1923. 1,447,949

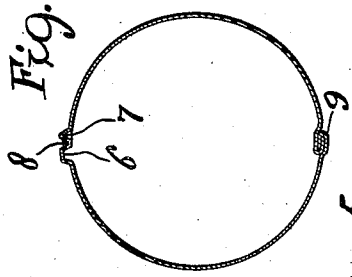
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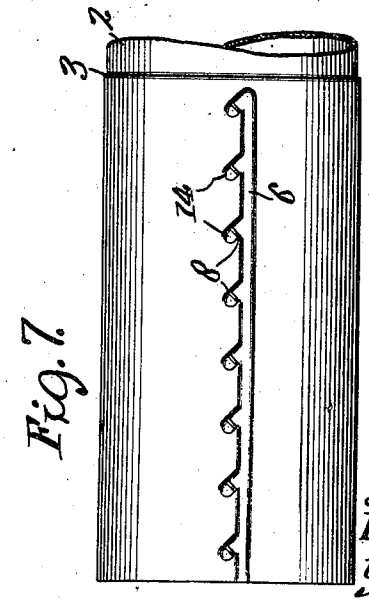
ADJUSTABLE LOCK JOINT STOVEPIPE

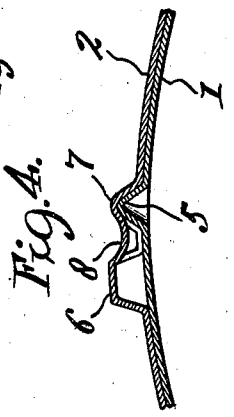
Filed Feb. 4, 1921

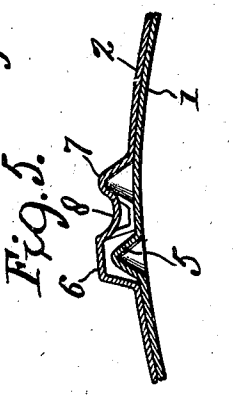


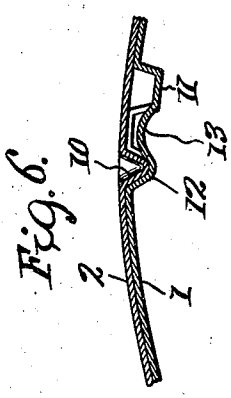












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UNITED STATES PATENT OFFICE.

BENJAMIN B. HALL AND RICHARD B. ROBERTS, OF SALT LAKE CITY, UTAH.

ADJUSTABLE LOCK-JOINT STOVEPIPE.

Application filed February 4, 1921. Serial No. 442,513.

To all whom it may concern:

Be it known that we, BENJAMIN B. HALL and RICHARD B. ROBERTS, citizens of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Adjustable Lock-Joint Stovepipes; and we 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.

The present invention relates to improvements in adjustable lock-joint stove pipes, and has for an object to provide an improved joint or interlocking connection between the telescoped ends of stove pipes so that they may be interfitted to greater or less extent to correspond with the length of piping desired.

Another object of the invention resides in providing an improved stove pipe interlocking joint composed of parts made up from the material of the pipe sections themselves and without the use of additional materials or extraneous parts whatsoever.

Another object of the invention resides in providing an improved stove pipe that may be adjusted as to length without involving the necessity of cutting the pipe sections and interfitting them in the manner at present prevailing.

A further object of the invention resides in providing an improved pipe joint which will present to the eye a more pleasing appearance than the present form of pipe joints which employ creased rings, which are entirely dispensed with according to the invention with the result that the joint is comparatively smooth.

A still further object of the invention is to provide an interlocked pipe joint which is attached and detached with little effort, and when in place forms a comparatively continuous pipe.

A still further object of the invention resides in providing interconnected stove pipe sections that may be manufactured cheaply and in which the locking construction is formed from the pipe sections at the same time during their manufacture that the edges are being crimped.

With the foregoing and other objects in view, the invention will be more fully described hereinafter, and will be more particularly pointed out in the claims appended hereto.

In the drawings, wherein like symbols refer to like or corresponding parts throughout the several views,

Fig. 1 is a fragmentary side view of two interconnected stove pipe sections constructed according to the present invention;

Fig. 2 is a cross sectional view taken on the line 2—2 in Fig. 1;

Fig. 3 is a similar view taken on the line 3—3 also in Fig. 1;

Fig. 4 is an enlarged fragmentary sectional view taken through the interlocking parts of the two pipe sections and showing the parts in their final interlocked positions;

Fig. 5 is a similar view with the parts engaged just prior to their being interlocked;

Fig. 6 is also a fragmentary perspective view showing a slight modification in which the parts are reversed on the two sections of the pipe; and

Fig. 7 is a fragmentary plan view showing a slight modification in which the locking recesses project at an angle from the slot different than a right angle.

Referring more particularly to the drawings, 1 and 2 designate adjacent sections of stove pipe adapted to be fitted together. One end of the section 2 is expanded outwardly from the point represented at 3 so as to receive the adjoining end of the pipe section 1. The other end of each pipe section is crimped as indicated at 4 into a substantially frusto-conical tip adapted to enter the enlarged end of an adjacent pipe section, and near this crimped end 4 there is punched outwardly from the material of each of the stove pipe sections a substantially conical button or projection 5 which is adapted to enter and slide through a slot 6 punched outwardly from the material of the expanded end 3 of each section. The slot 6 extends parallel with the axis of the piping so that one section may be interfitted with another by moving the cone projection 5 along in the slot 6.

Leading laterally from the slot 6 are a number of locking recesses 7 which are also punched from the material of the expanded portion 3 of each pipe section and between the slot 6 and each locking recess 7 the material of the pipe section is preferably bent or curved inwardly as represented at 8 in

order to form a resilient guard past which the cone projection 5 may snap when the two pipe sections are rotated relatively to one another, and which will automatically hold the projection 5 in the locking recess 7 into which it is moved by such rotation.

In Figs. 2 and 3 the seam 9 is represented, this being the usual seam found in stove piping and does not relate particularly to the invention.

According to the modification shown in Fig. 6 the cone projection 10 is struck inwardly from the outer section 2 of the piping, and the groove 11 is bent inwardly from the inner section 1 of the piping, locking recesses 12 being offset from the groove 11 in a similar manner to that previously described and being provided with curved or outwardly bulged walls 13 to cause the interlocking of the projections 10 with the recesses 12.

A still further modification is shown in Fig. 7 in which the locking recesses 14 extend from the slot 6 at an angle other than a right angle.

In operation, the crimped end of the section 1 is fitted into the expanded end 3 of the section 2, care being taken to bring the cone projection 5 on the section 1 into registry with the slot 6 in the section 2. The section 1 is thereupon pushed through the expanded portion of the section 3 a desired distance to the end that the required length of piping may be secured.

The pipe sections 1 and 2 are thereupon relatively turned so that the cone projection 5 may be moved into the recesses 7 that happens to present itself at this time. In this condition the parts will be thoroughly interlocked against accidental displacement and the two pipe sections will be moved inwardly into each other to a substantial extent so as to form a strong rigid structure.

Adjustable stove piping of this character is particularly desirable for connecting stoves with chimneys which vary a great deal in distance. Of course, the slot 6 may be made as long as desired or a greater or less number of recesses 7 provided, all of which vary the amount of adjustment to be had from any particular construction.

It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiment of this invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

What is claimed is:

1. An adjustable lock-joint stove pipe comprising adjoining pipe sections telescoped together, one of the pipe sections provided with a slot formed from the material of the pipe section and also with locking recesses integral with the material of the pipe section leading laterally from said slot and provided with spring guards integral with the pipe section, said spring guards being placed at the entrance to each of the locking recesses and between the recesses and said slot, and a projection struck from the material of the other pipe section for entering said slot and recesses and snapping past said spring guards, substantially as described.

2. An adjustable lock-joint stove pipe comprising adjoining pipe sections telescoped together, one of the pipe sections provided with a locking recess therein and the other pipe section provided with a projection adapted to enter said recess for locking the sections together, said first pipe section having an integral spring guard pressed from the material of the section at the entrance to the recess into the path of said projection, said projection being adapted to snap past said spring guard in entering and moving out of the locking recess, substantially as described.

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