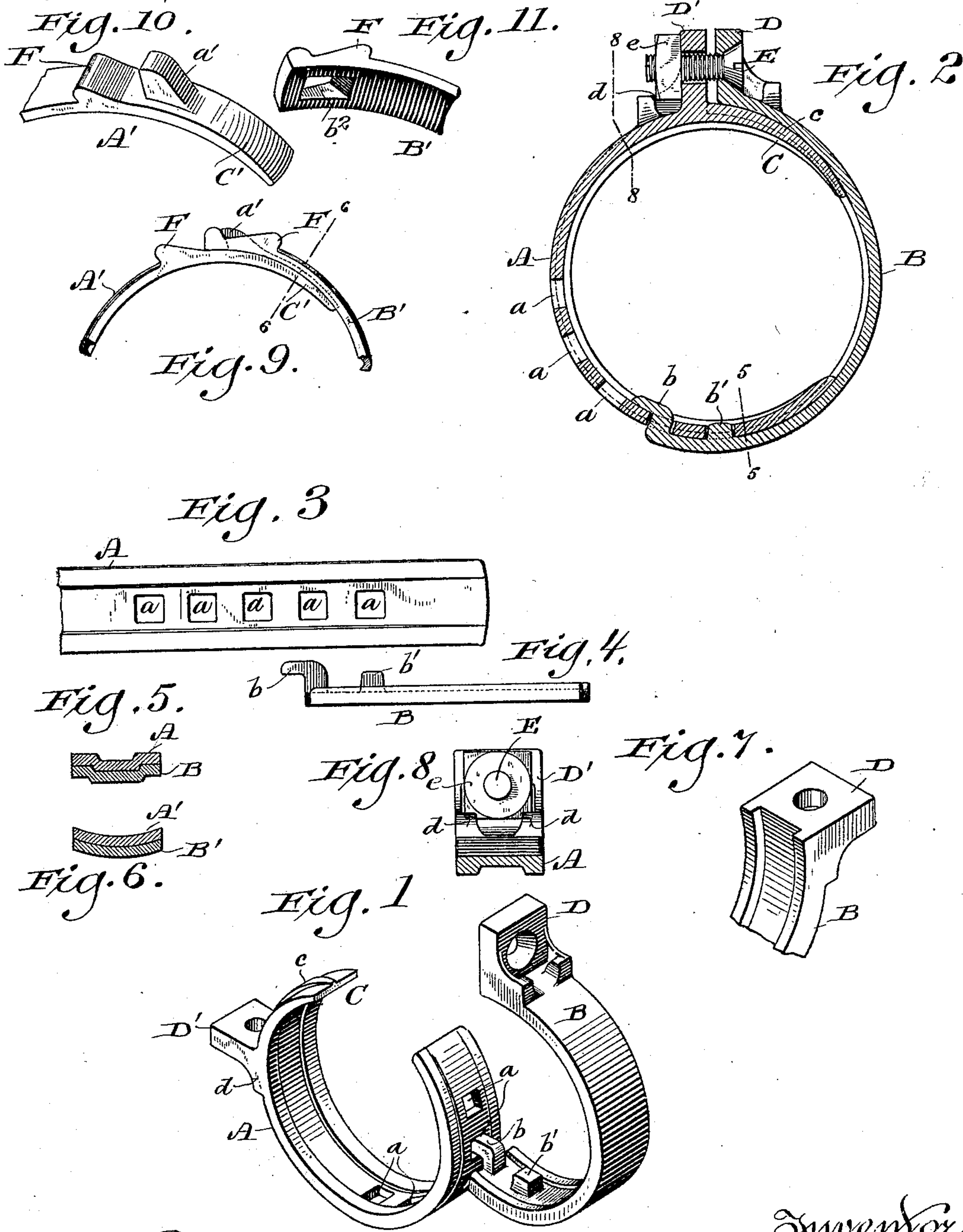


(No Model.)

E. R. ARTHUR.  
ADJUSTABLE HOSE COUPLING BAND.

No. 519,312.

Patented May 8, 1894.



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# UNITED STATES PATENT OFFICE.

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## ADJUSTABLE HOSE-COUPLING BAND.

SPECIFICATION forming part of Letters Patent No. 519,312, dated May 8, 1894.

Application filed April 26, 1892. Serial No. 430,804. (No model.)

*To all whom it may concern:*

Be it known that I, EVAN R. ARTHUR, a citizen of the United States, residing in Portage, in the county of Columbia and State of Wisconsin, have invented certain new and useful Improvements in Hose-Bands; 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.

The main objects of my invention are to provide a hose coupling band which may be readily fitted to any size of hose, and to prevent the material of the hose from being forced outwardly into the opening between the lugs or ears employed to compress and hold the band upon the hose, or between the edges of the tongue provided to close said opening and the sides of the recess which said tongue enters.

To this end my invention consists essentially of a band of metal either cast or struck up, formed in two parts so made as to interlock at different lengths or to be interchangeable one with another without regard to length, and so made that the two parts will be kept in line with each other when applied to the hose; of a tongue at one end of the band of sufficient strength to enable it to be forced underneath the opposite end of the band without buckling and of sufficient width to prevent the material of the hose from being forced outwardly between the ears or lugs or between the edges of the tongue and the sides of the recess which it enters when the band is being applied to the hose; and of certain other peculiarities of construction and arrangement hereinafter particularly described and pointed out in the claims.

In the accompanying drawings like letters designate the same parts in the several figures.

Figure 1 is a perspective view of an adjustable hose band embodying my improvements, the component parts of the band being separated at one end and partially interlocked at the other. Fig. 2 is a medial longitudinal section of the band, the component parts being interlocked and connected as when applied to hose. Fig. 3 is a plan view of a portion of one of the component parts, and Fig. 4 a side elevation of a portion of the other part of the band showing the interlocking

connection by which the length of the band may be varied. Fig. 5 is a cross section of the band at a point where the component sections overlap, as on the line 5, 5, Fig. 2. Fig. 6 is a similar section on the line 6, 6, Fig. 9, showing a modified form of the component parts of the band. Fig. 7 is a perspective view showing the inner side of the overlapping end of the band. Fig. 8 is a cross section on the line 8, 8, Fig. 2, showing one of the lugs and the seat with which it is provided for holding the nut on the clamping screw from turning. Fig. 9 is an edge elevation of a portion of a modified form of hose band to which my improvements are applicable, and Figs. 10 and 11 are details in perspective of opposite ends of the band showing the device for fastening and holding it upon the hose.

Referring to Figs. 1 to 5 inclusive, A and B represent the two component parts or sections of the band, which are formed with longitudinal grooves or recesses on their inner sides, the inwardly projecting edges or ribs on either side thereof serving incidentally to compress the material of the hose into the grooves or recesses in the shanks of the hose couplings and thereby hold the same securely thereon. The underlying part or section A of the band is formed on the outside with a corresponding rib or projection which fits into the internal groove or recess in the overlapping part or section, as shown in Figs. 2 and 5, and thereby holds the component parts of the band in line with each other when they are assembled and are being applied to the hose. One part A, of the band is formed in the direction of its length with a series of holes *a a*, and the other part B, with lugs *b b'* at or near one end thereof, adapted to be inserted in any of said holes and thus adjustably lock the parts together at one end. The lug *b'* being provided simply for the purpose of additional strength, may be omitted. By means of this interlocking device the band may be adjusted to any desired length by simply changing the lugs of one part from one set of holes to another in the other part, or by the substitution for one of the parts of a longer or shorter part, either or both parts of the band being made of various interchangeable lengths.

At or near the ends opposite the interlock-



ing device above mentioned, the parts of the band are formed with outwardly projecting perforated ears D D', through which a bolt or screw E is inserted to draw and hold the parts of the band together, as shown in Fig. 2, upon the hose, the screw E being provided with a nut e, which is held from turning with one side parallel to the outer face of the band by a seat d, formed thereon with the ear D', as shown in Fig. 8.

The band is formed at one end with a tongue C corresponding as to width and form in cross section with the body of the band and provided on the outside, with a rib c, which is adapted to enter the internal groove or recess shown in Fig. 8 in the other end of the band, and serves to strengthen said tongue and to guide the perforated ears D D' together, with the holes therein in line with each other. It is obvious that this tongue may be formed on either part of the band and the same result obtained.

By the construction shown and described, sufficient strength and rigidity is given to the tongue to prevent its breaking or buckling when forced between the hose and the opposite end of the band, the rib c guiding and holding the ends of the band in their proper relation to each other and the full width of the tongue preventing the material of the hose from being forced outwardly between the edges of said rib and the sides of the recess which it enters so as to interfere with drawing the ends of the band together and to force the parts out of line with each other.

I prefer to make both parts of the band of lengths which are multiples of some fraction of an inch, and to mark them with numbers designating their length according to such unit of measure. For example, assuming the unit of measurement to be one-eighth of an inch, a part four inches in length would be marked 32, and if a part five and five-eighths inches in length correspondingly marked 45, were interlocked therewith, a band would be produced the length of which would be represented by the sum of said numbers, or 77, which divided by eight would give the length of the band in inches, viz: nine and five-eighths inches. This method of designating the lengths of the bands will be found convenient, especially when parts of varying lengths are made interchangeable.

In place of the internal longitudinal groove and projection for holding the component parts in line and compressing the hose upon the shank of the coupling, the parts may be made convex and concave in cross section to fit into each other, as shown in Figs. 6, 9, 10 and 11, and in place of the perforated ears and screw fastening hereinbefore described, I may apply my improvements to a band provided with a fastening device like that shown in Figs. 9 to 11 inclusive, in which a' represents a lug

formed on the outside of one part A' and adapted to enter and engage with an aperture b<sup>2</sup> formed in the other part B' of the band, and F F, lugs for drawing the ends of the band together to enter the lug a' in the aperture b<sup>2</sup>.

C' represents the underlapping tongue, which in this case as in the other, is made of the full width of the band, but is formed convex on the outside to correspond with and fit into the concaved inside of the other end of the band, as shown in Fig. 6.

Various other changes in the minor details of the device may be made, within the intended scope of my invention.

I claim—

1. An adjustable hose band clamp made in two parts, which are interlocking, one part being provided with lugs and the other with a series of openings adapted to engage with said lugs, substantially as set forth.
2. The combination of an adjustable hose band made in two adjustably interlocking parts, one of said parts being provided with an underlapping tongue of the width and form of the band, and a screw for securing the band upon hose, substantially as and for the purposes set forth.
3. An adjustable hose band consisting of two adjustably interlocking parts provided with lugs or ears for drawing them together and securing them upon hose, substantially as and for the purposes set forth.
4. An adjustable hose band consisting of two adjustably interlocking parts each formed with an internal longitudinal groove or recess and the underlapping part being formed with an external longitudinal rib or projection constructed to fit into the internal groove or recess in the overlapping part, substantially as and for the purposes set forth.
5. A hose band made in two separable parts, one part being formed at one end with an underlapping tongue of the full width of the overlapping part of the band and having an external longitudinal rib or projection, and the other overlapping part being formed with an internal longitudinal groove or recess to receive said rib or projection, substantially as and for the purposes set forth.
6. A hose band provided at one end with an underlapping tongue of the full width of the overlapping part of the band and formed on the outside with a longitudinal rib or projection, the opposite overlapping end of the band being formed on the inside with a longitudinal groove or recess to receive said rib or projection, and ears or lugs for drawing and holding the ends of the band together, substantially as and for the purposes set forth.

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