L. RUBES.

TUBING.

APPLICATION FILED APR. 21, 1908.

970,955.

Patented Sept. 20, 1910.

Fig. 1.

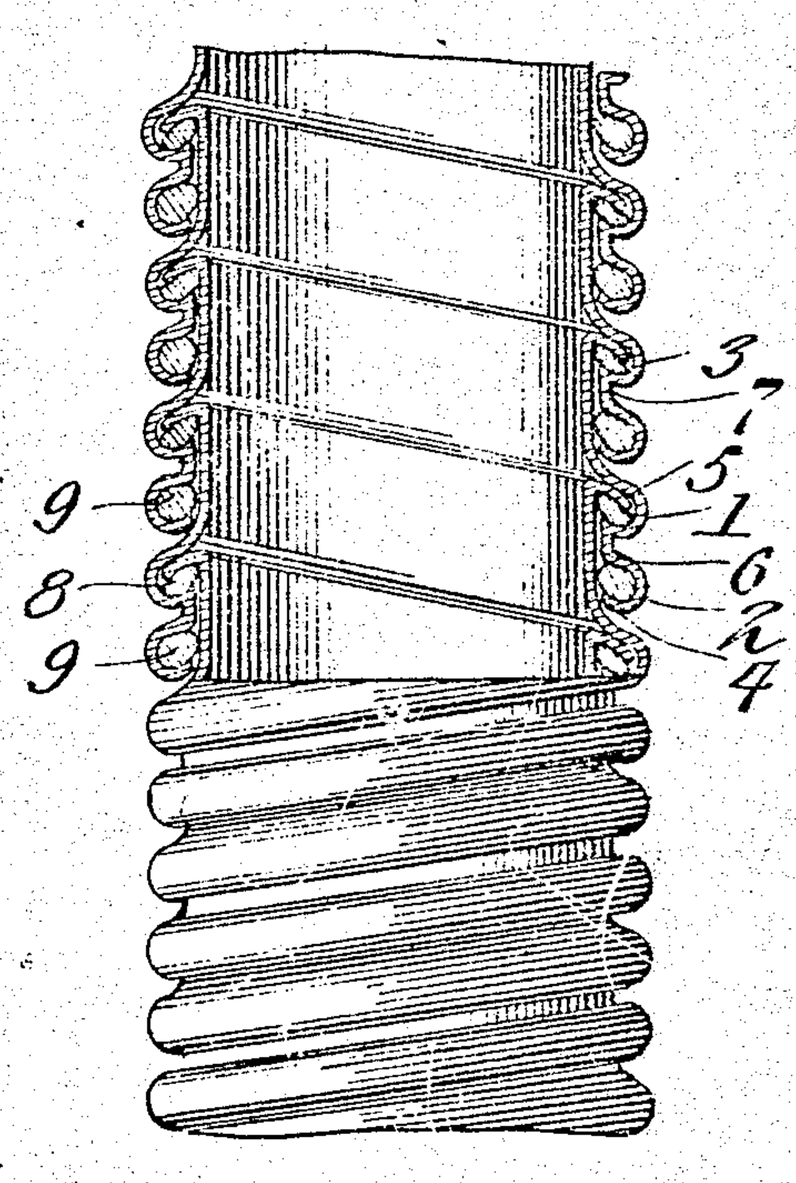
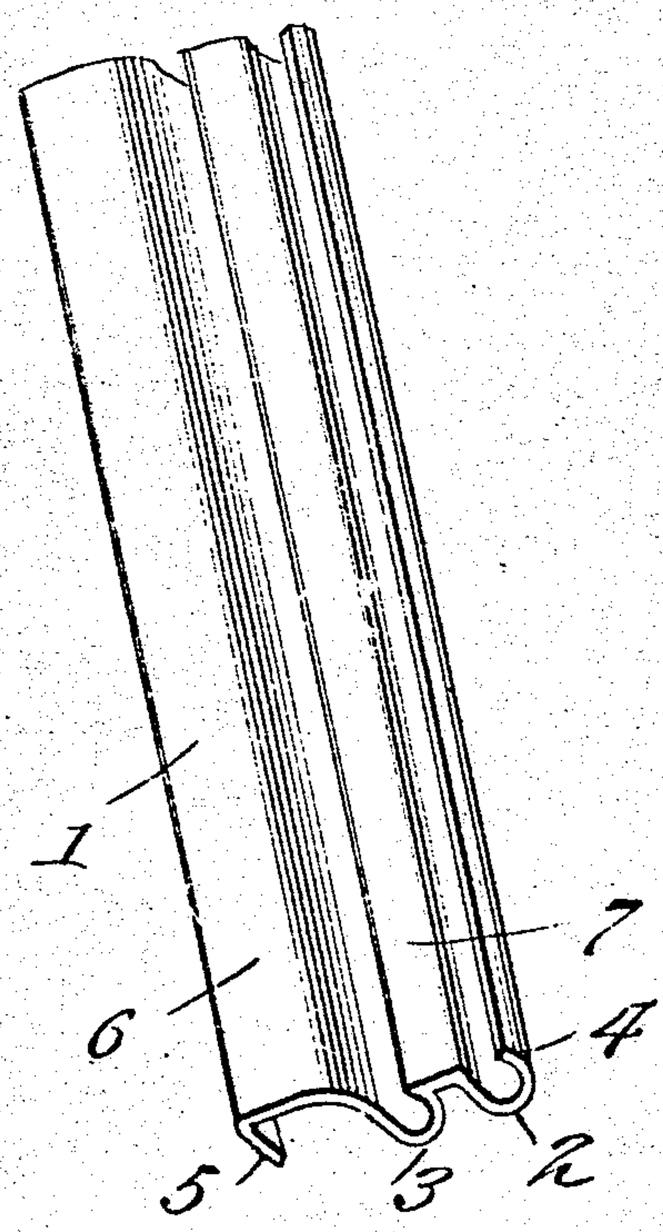


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

LOUIS RUBES, OF BROOKLYN, NEW YORK.

TUBING.

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To all whom it may concern:

Be it known that I, LOUIS RUBES, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Tubing, of which the following is a specification.

This invention relates to tubing, the object in view being to provide a novel construction of metal tubing embodying flexibility and fluid or air tight qualities which render the same especially desirable as an air conduit for automobile horns and like purposes as well as a container for flexible shafting and the like.

With the above general object in view, the invention consists in the novel construction, combination and arrangement of parts hereinafter fully described, illustrated and claimed.

In the accompanying drawing, Figure 1 is a view partly in elevation and partly in section, showing metal tubing constructed in accordance with the present invention. Fig. 2 is a perspective view of a section of the metal strip of which the tubing is formed.

The metal tubing of this invention is constructed of a continuous strip of metal of any suitable gage according to the strength to be imparted to the finished tubing. The said strip is shown at 1 in Fig. 2 wherein it will be observed that one of the marginal edges of the strip is bent to form a plurality of parallel hollow beads 2 and 3, the outer bead terminating in a curved inbent hook-shaped edge 4. The other marginal edge of the strip is bent to the opposite side to form an inwardly inclined flange or hook-shaped edge 5. It will further be observed by reference to Fig. 2 that the inbent or plane portion 6 of the strip is located in a different plane from the connecting portion 7 which joins the two hollow parallel beads 2 and 3 so that when the strip is bent around upon itself in the manner shown in Fig. 1 the part 7 will lie outside of the part 6 of the previous wind or coil.

The tubing is formed by winding the strip above described spirally upon itself, as clearly illustrated in Fig. 1, so that the hooked or flanged edge 5 falls within the second or innermost hollow bead 3. Simultaneously with the spiral winding of the strip, strands 8 and 9 of asbestos, wool or other like material are laid in the hollow sides of the beads 2 and 3 and held between said beads and the flat portion 6 of the strip, as clearly shown in Fig. 1. This provides a yielding or cushioned connection between the coils or windings of the tubing which admits of the necessary flexibility in the completed tubing and also guards against the admission of moisture to the interior of the tubing and at the same time makes the tubing practically air and fluid tight so that it forms an excellent conduit for the purpose specified. A metallic interlock is also established between the coils or windings of the tubing which will come into effect when excessive linear strain is brought to bear upon the tubing, thereby preventing dislocation of the coils from each other and holding the tubing as a whole intact.

Having thus fully described the invention, what is claimed as new is:—

A flexible metallic tubing comprising a helically wound strip having a pair of substantially similar external hollow helical beads disposed parallel to each other with their convolutions spaced apart and extending the full length of the tubing, one bead being disposed along one edge of the strip and the other bead being disposed intermediate the edges, the unbeaded edge being formed into an outwardly and backwardly inclined flange spaced from the intermediate bead at such a distance that the flange on each convolution of the strip will extend into the intermediate bead of the adjacent convolution to lock the convolutions together, a packing strip set into the edge bead, and a packing strip set into the intermediate bead and engaging the said flange throughout its length to coöperate with the first packing strip to form separate and spaced fluid-tight joints between the beaded portion of each convolution and the unbeaded portion of the adjacent convolution.

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

LOUIS RUBES.

Witnesses:
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