

U. S. ARMSTRONG.
RESILIENT FLEXIBLE CONDUIT.
APPLICATION FILED SEPT. 26, 1907.

910,770.

Patented Jan. 26, 1909.

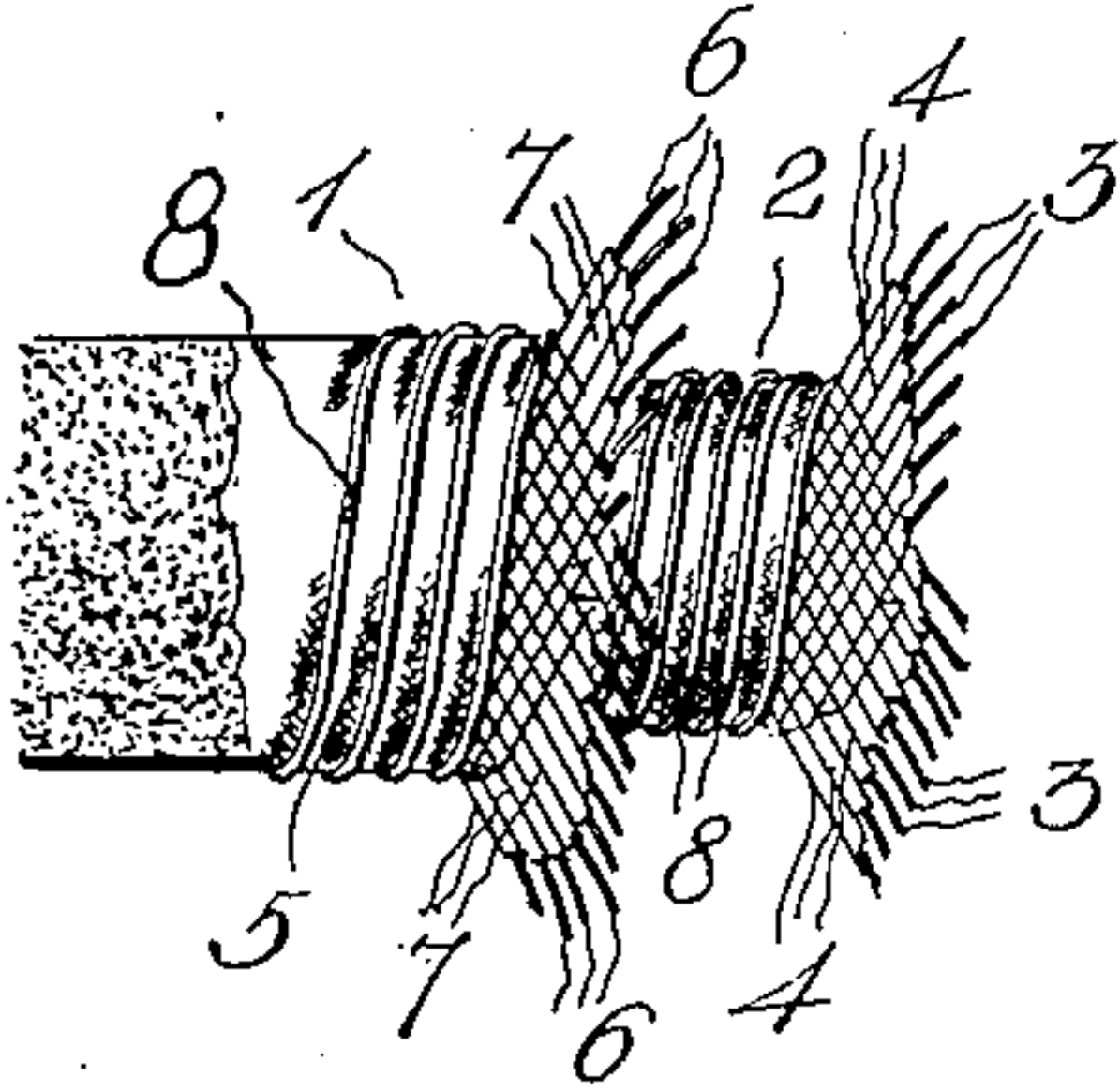


FIG. 1

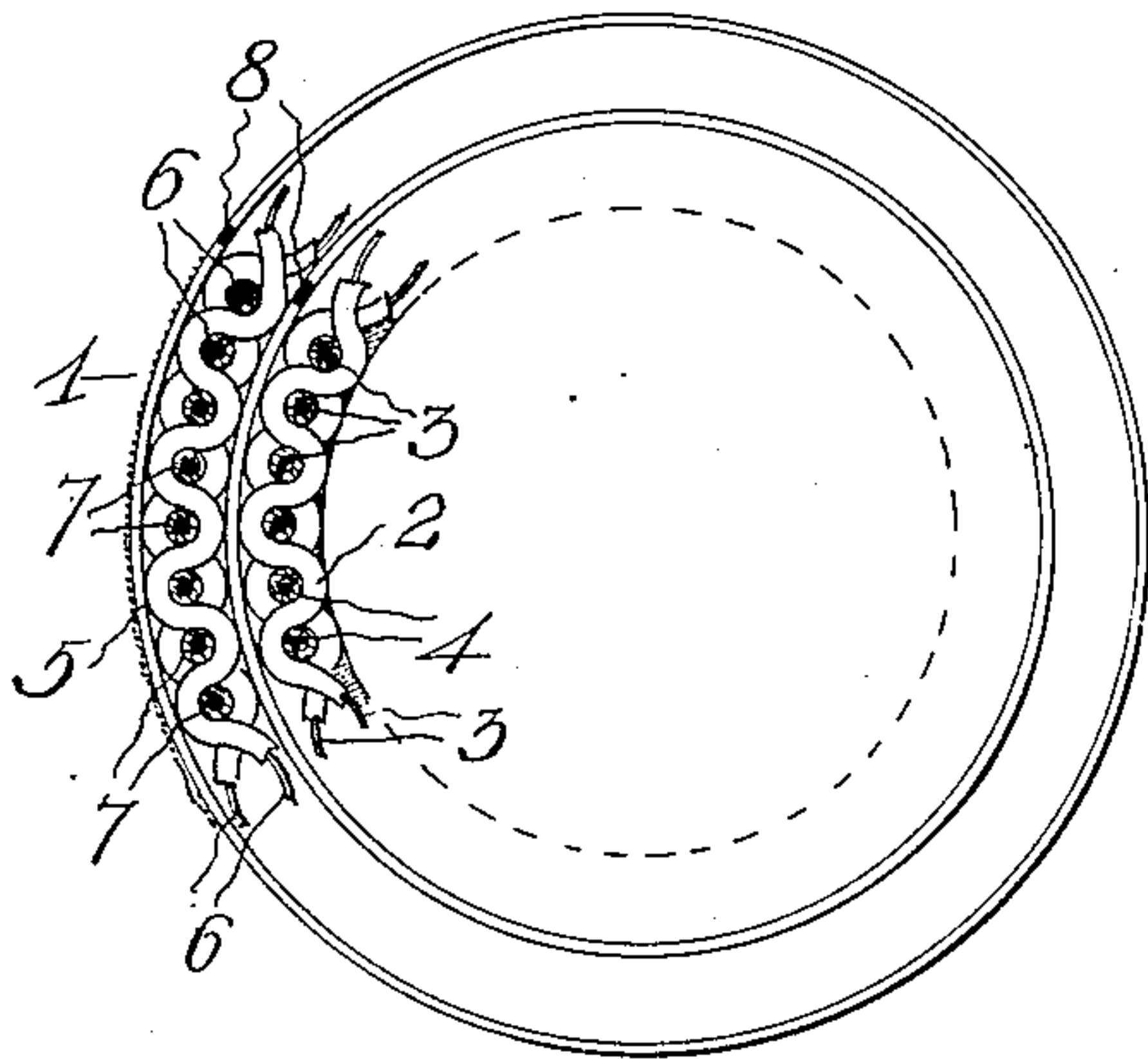


FIG. 2

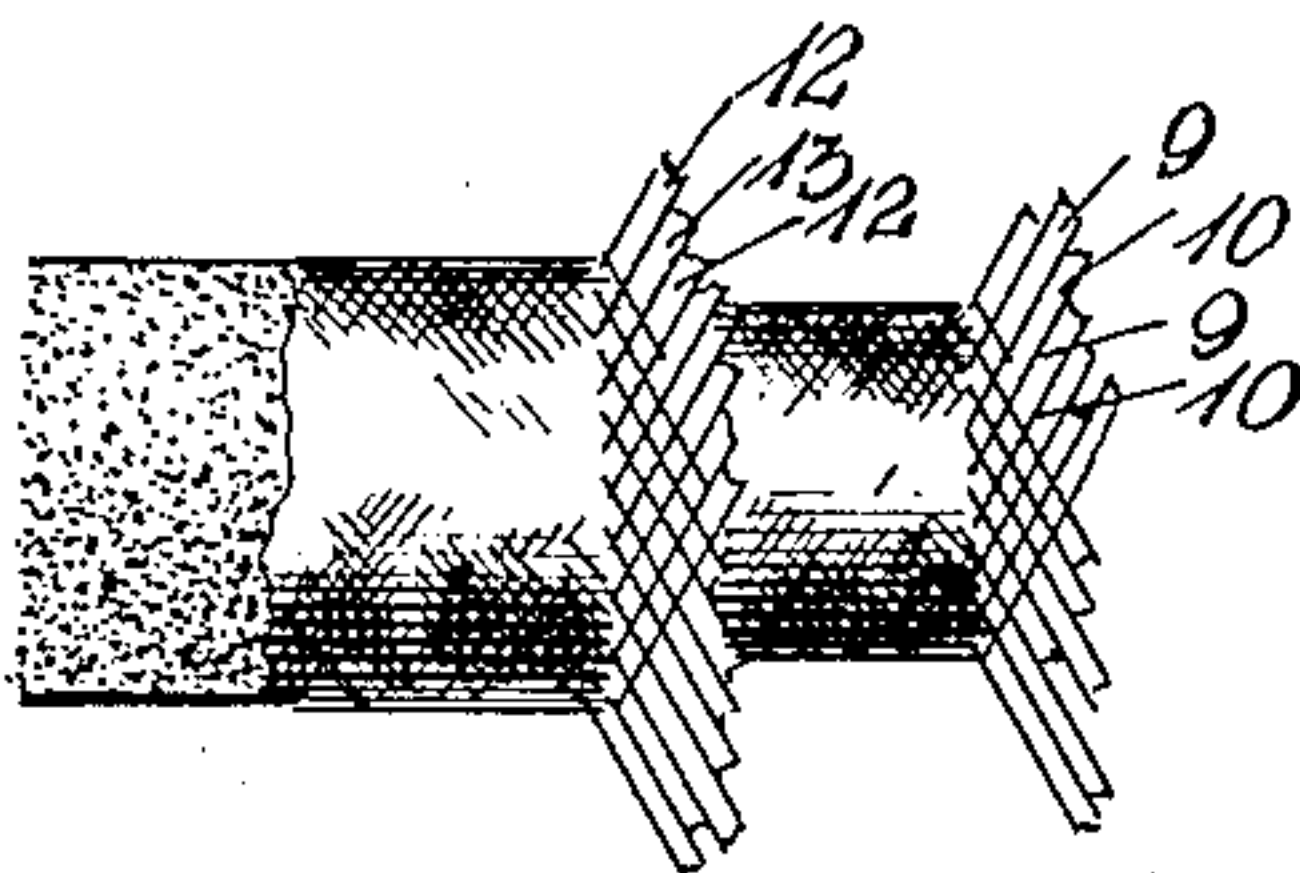


FIG. 3

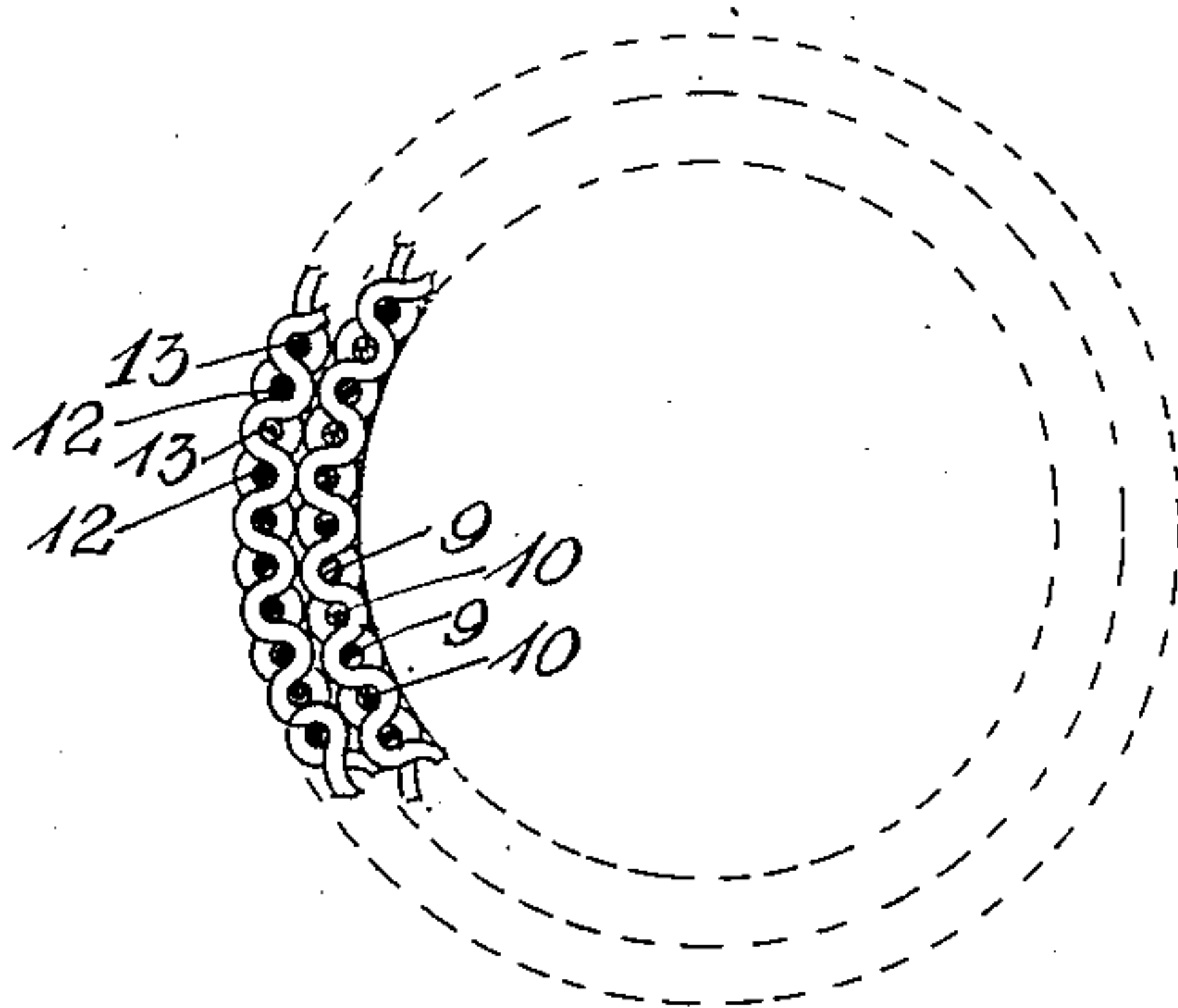


FIG. 4

Witnesses

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RESILIENT FLEXIBLE CONDUIT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ULYSSES S. ARMSTRONG, a citizen of the United States, residing in New Kensington, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Resilient Flexible Conduits; and I do 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.

This invention relates to improvements in flexible conduits.

The object of the invention is to provide a flexible conduit constructed in such manner as to recover its original form after being flattened.

A further object is to provide a conduit of this character which will be waterproof, non-combustible, and a non-conductor of electricity.

With these objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side view of a short section of conduit constructed in accordance with the invention, the ends of the strands being shown separated at one end of the section to illustrate the formation of the conduit; Fig. 2 is a cross sectional view of the conduit; Fig. 3 is a view similar to Fig. 1, showing a modified form and arrangement of the strands; and Fig. 4 is a cross sectional view of the same.

Referring more particularly to Figs. 1 and 2 of the drawings, 1 denotes the conduit, which consists of an inner tube, 2, the core or body portion of which is constructed of braided or woven wire, 3, each individual strand of which is incased in a suitable fibrous material, 4, which is preferably of fire-proof construction, such as asbestos fiber.

The inner tube, 2 is incased by an outer covering or casing, 5, which may be formed of any suitable fabric, but is preferably constructed of fibrous woven material, such as asbestos or similar non-combustible material, in which is embedded a core formed of braided or woven wire, 6, which may be treated to a filling of any suitable insulating compound, or paste, or which may have each

individual wire incased in a suitable non-combustible fibrous material, 7, as shown.

The inner surface of the tube 2 has applied thereto or is treated with a non-frictional element, such as French chalk, or the like, and, if desired, the outer side of the casing 5, as well as the outer side of the tube 2, may be wrapped in a spirally wound wire, 8, thereby increasing the strength and resisting qualities of the conduit.

In Figs. 3 and 4 of the drawing is shown a slightly modified construction of the tube and casings, the inner tube being shown in this instance as consisting of a body portion formed of woven or braided wire, 9, each strand of which is alternated with a strand of fibrous material, 10, while the outer casing consists of a body portion formed of woven or braided wire, 12, each strand of which is alternated with a strand of fibrous material, 13.

In either of the constructions herein described and shown, all mesh or spaces in the construction of either the inner tube or the casings are filled in with a suitable insulating compound or paste, and, if desired, a coating of asphaltum or other saturating combination may be applied, over which is sprinkled powdered mica, or substances of a similar nature.

By forming a conduit as herein shown and described, a flexible resilient construction is produced, which will resume its original shape after being flattened, and which may be bent or turned in any direction.

Having thus fully described my invention, what I claim as new and desire to secure by Letters-Patent, is:

1. A flexible, resilient conduit comprising an inner tube formed of woven or braided wire, and a non-combustible fiber, a non-frictional material arranged on the inner side of said tube, an outer casing or covering formed of woven or braided wire and a non-combustible fiber, and a coating of a suitable saturating and vulcanizing solution sprinkled with powdered mica, substantially as described.

2. A flexible resilient conduit comprising an inner tube formed of braided or woven wire, each strand of which is incased in a non-combustible fibrous covering, and an outer casing formed of braided wire, each strand of which is incased in a non-combustible

ble covering, a coating on the outer surface
of said casing, said coating consisting of a
saturating and vulcanizing solution having
sprinkled thereon powdered mica, and a non-
5 frictional lining arranged in said inner tube,
substantially as described.

In testimony whereof I have hereunto set

my hand in presence of two subscribing wit-
nesses.

ULYSSES S. ARMSTRONG.

Witnesses:

C. H. ALLMAN,

CHAS. A. FLACK.