

No. 770,218.

PATENTED SEPT. 13, 1904.

W. H. K. BOWLEY.

FLEXIBLE METALLIC TUBING FOR ARMORING INSULATED ELECTRICAL
CONDUCTORS.

APPLICATION FILED NOV. 24, 1903.

NO MODEL.

Fig. 1.

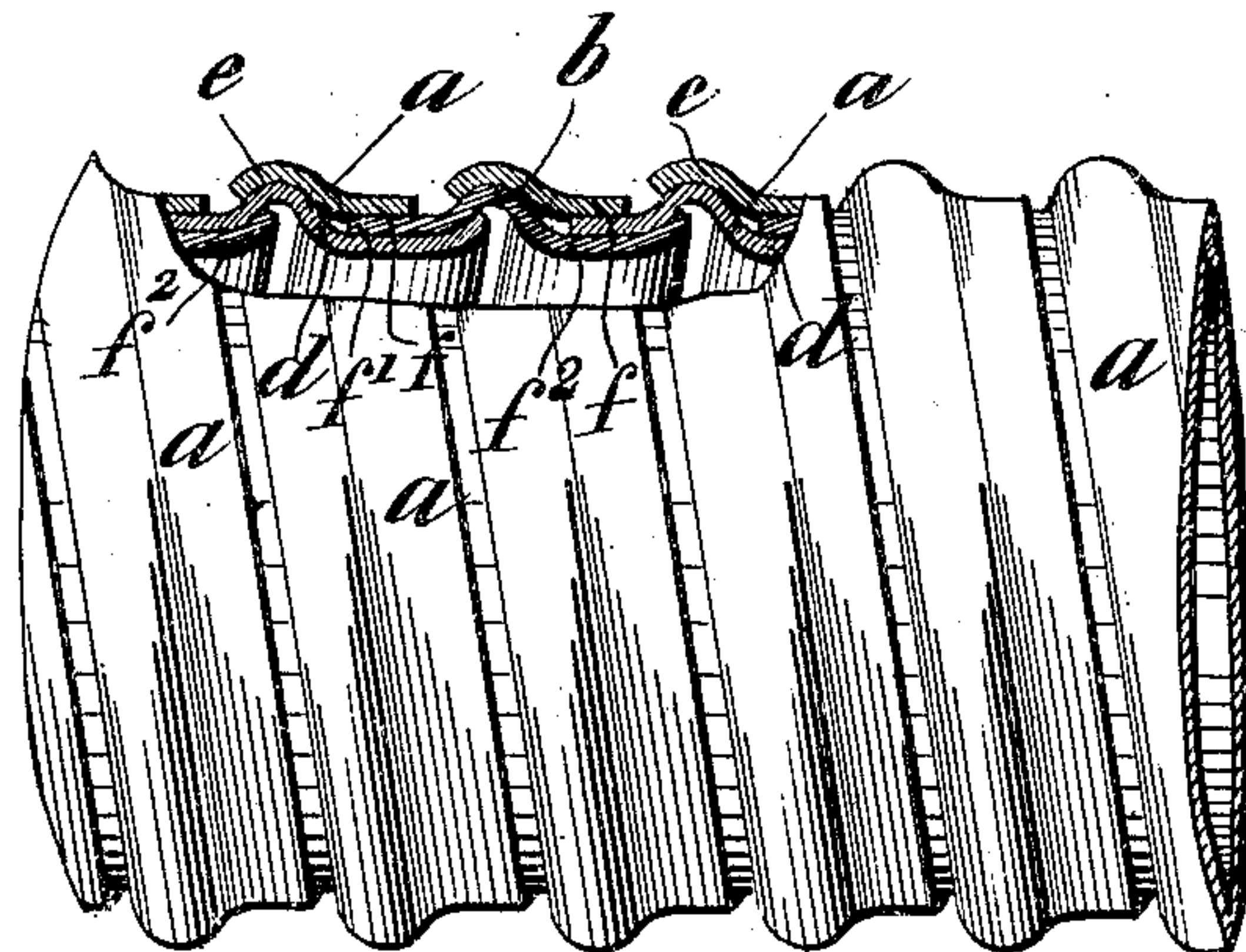
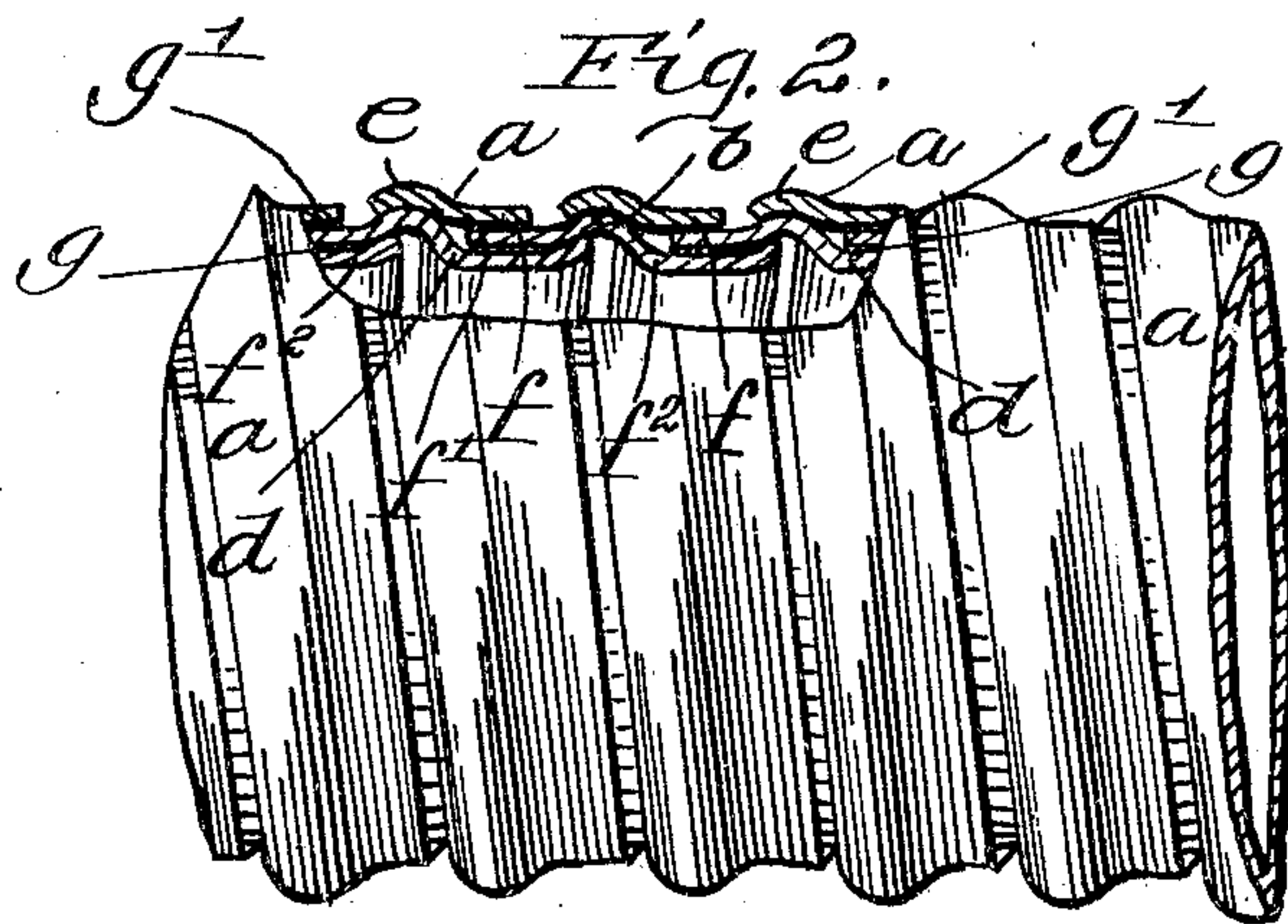


Fig. 2.



Witnesses

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WILLIAM HENRY KANZON BOWLEY, OF LONDON, ENGLAND.

FLEXIBLE METALLIC TUBING FOR ARMORING INSULATED ELECTRICAL CONDUCTORS.

SPECIFICATION forming part of Letters Patent No. 770,218, dated September 13, 1904.

Original application filed November 17, 1902, Serial No. 131,761. Divided and this application filed November 24, 1903. Serial No. 182,500. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY KANZON BOWLEY, a subject of the King of Great Britain and Ireland, residing at 112 Queen Victoria street, in the city of London, England, have invented a certain new and useful Improvement in Flexible Metallic Tubing for Armoring Insulated Electrical Conductors, of which the following is a specification, for which I have obtained patents in France, dated April 23, 1903, No. 331,451; in Belgium, dated April 24, 1903, No. 169,950; in Great Britain, dated September 27, 1902, No. 21,075, and in Germany by application for patent filed April 25, 1903, Serial No. 34,246.

For the purpose of armoring insulated electrical conductors flexible metallic tubing has been employed. This flexible metallic tubing is formed by helically coiling a strip of metal corrugated in such a manner that each helical convolution interlocks with the next. Consequently there is therefore generally a double thickness of metal where the convolutions interlock and a single thickness of metal between these parts. This renders such metallic tubing somewhat unsatisfactory for the purpose of armoring electrical conductors, because the tube is liable to be penetrated at those parts where there is only the single thickness of metallic tubing.

The present invention, which was originally included in my former application for Letters Patent, No. 747,367, December 22, 1903, of which this is a division, relates to a construction of tube of this kind in such a manner that there shall be a double thickness of metal not only at the part where the convolutions interlock, but also between such parts. For this purpose I construct the tube as shown in the accompanying drawings, in which Figure 1 is a part-sectional elevation of a tube constructed according to the present invention, and Fig. 2 is a corresponding view showing a modified construction by coiling an additional strip of metal *a* on the helically-coiled tube immediately after it has been formed. I preferably make the additional strip of metal *a* of greater width, and I first corrugate it into such

a shape that a part *e* will fit over the raised convolution *b* of the tube and leave a flat part *f* extending over the part *d*, where there was only a single thickness of metal. Owing to the shape of this additional strip of metal it is retained in a definite position in relation to the other part of the tube. It will be seen that although this strip covers the single part *b* it permits the flat part *f* to slide over the coiled tube and also permits the flat part *f'* of the one convolution to slide over the flat part *f''* of the adjoining convolution of the tube when this is bent in either direction.

In some cases it is preferable, as shown in Fig. 2, to insert between contiguous surfaces of the coiled strips flat strips *g g'* of suitable material to act as a packing and to prevent the surfaces from rusting together. The strip *g* is coiled with the body-strip of the tube and the strip *g'* with the protecting-strip *a*.

Having thus described the nature of this invention and the best means I know of carrying the same into practical effect, I claim—

1. A flexible metallic tube comprising a corrugated strip of metal coiled with each turn partially overlapped by and interlocking with the next succeeding turn and a second corrugated strip coiled thereon and having its corrugations in engagement with those of the first coiled strip, substantially as described.

2. A flexible metallic tube comprising a tube formed by helically coiling a corrugated metal strip with each turn partially overlapped by and interlocking with the next succeeding turn, a second corrugated strip coiled thereon and having its corrugations in engagement with those of the first coiled strip, and packing-strips interposed between contiguous surfaces of the coiled strips, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM HENRY KANZON BOWLEY.

Witnesses:

EDWARD GARDNER,
WALTER J. SKERTEN.