April 10, 1928. 1,665,377

G. F. MURPHY

PACKING

Filed March 4, 1927

Fig:5.

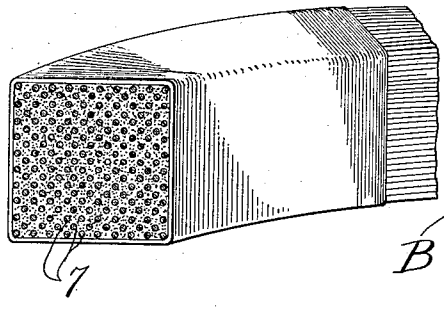


Fig:1.

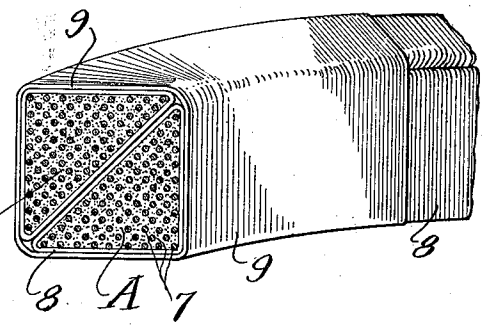


Fig:2.

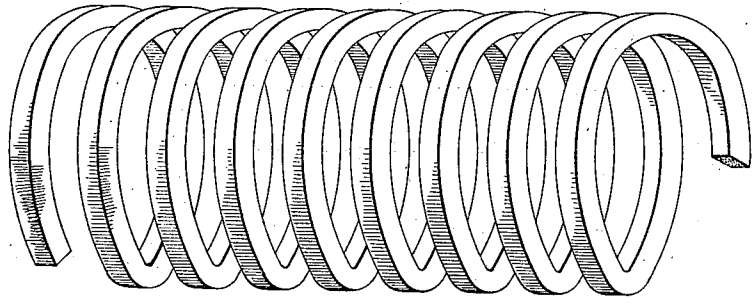
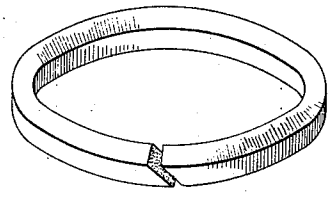


Fig:4.



Fig:3.



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UNITED STATES PATENT OFFICE.

GEORGE F. MURPHY, OF PHILADELPHIA, PENNSYLVANIA.

PACKING.

Application filed March 4, 1927. Serial No. 172,846.

This invention relates to flexible metallic packing. One of the objects of the invention is to provide a flexible metallic packing which may be readily bent into shape for use.

Another object of the invention is to provide a metallic packing which will readily conform itself to the cavity to be packed when the gland is drawn up.

Another object of the invention is to provide a flexible metallic packing which is somewhat resilient and will, therefore, be less liable to leak under changes incident to service conditions.

The foregoing, together with such other objects and advantages as may hereinafter appear, or are incident to the invention, are obtained by means of a construction which I have illustrated in the preferred form in the accompanying drawings, wherein:—

Fig. 1 is a partial perspective and sectional view of a packing made in accordance with my invention;

Fig. 2 is a perspective view of a length of the packing previous to cutting into lengths.

Fig. 3 is a perspective view of a length of the packing material of Fig. 2 bent into shape.

Fig. 4 is an enlarged fragmentary sectional view illustrating the action of certain of the parts, and

Fig. 5 is a view similar to Fig. 1 illustrating a modification of the invention.

In carrying out my invention, I make the core of the packing from a plurality of wires 7, which wires run lengthwise of the packing and are arranged in rows with the wires in one row substantially staggered with respect to the wires of the adjacent row or rows. It will be understood that there are many more wires than are indicated in Fig. 1, and that these may well be of much smaller size than indicated in such figure. In the arrangement of Fig. 1 the wires are grouped into two bundles A and B, the bundles being triangular and cooperating, when assembled, to be substantially rectangular. The bundles are impregnated with graphite and each bundle has a holding means preferably in the form of a cover composed of wires 8 which may be wrapped or braided. The two bundles are held together by a cover which is preferably composed of wire 9 wrapped or braided.

The longitudinal disposition of the wires comprising the bundles makes it possible to readily bend a length of the packing into ring shape, the ends being appropriately beveled or chamfered so that the joint will close or meet properly.

When the packing is under compression, the packing will adjust itself to pack firmly because the two bundles of wires constituting the core can slide on each other. In addition, under compression, the wires will bear upon one another, as indicated in Fig. 4, causing the packing to expand in a direction at right angles to the line of pressure. Because of the wrapping and the multiplicity of longitudinally extending wires, the packing is more or less resilient and tends to reassume its original shape. In other words, the packing is not apt to take a permanent set which is advantageous for a number of reasons. In the arrangement of Fig. 5, the core is made up of a single bundle of wires, but otherwise the construction is the same as that described.

The covering may also be impregnated with graphite or other lubricant.

In all cases I prefer, particularly if high temperatures must be withstood, to employ aluminum wire both in the core and in the coverings or covering. Aluminum wire or wire of similar general characteristics is also advantageous in that it may be cut cleanly and readily with a knife.

I claim:—

1. A substantially rectangular flexible packing having a core composed of two bundles of wire, each bundle being triangular, and a covering for holding the triangular bundles together.

2. A substantially rectangular flexible packing having a core composed of two bundles of wire, each bundle being triangular and having a covering or holding means, and a cover for holding the bundles together.

3. A substantially rectangular flexible packing having a core composed of two bundles of wire impregnated with lubricant, each bundle being triangular, and a covering for holding the triangular bundles together.

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4. A substantially rectangular flexible packing having a core composed of two bundles of wire, each bundle being triangular, and a covering for holding the triangular bundles together, the wires extending longitudinally of the packing.

5. A flexible packing composed of a plurality of longitudinally extending sections, each section being composed of a plurality of wires grouped in angular formation, and a flexible holding covering.

In testimony whereof I have hereunto signed my name.

GEORGE F. MURPHY.

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