May 16, 1933. C. C. HALL 1,909,534

PACKING

Filed Jan. 17, 1930

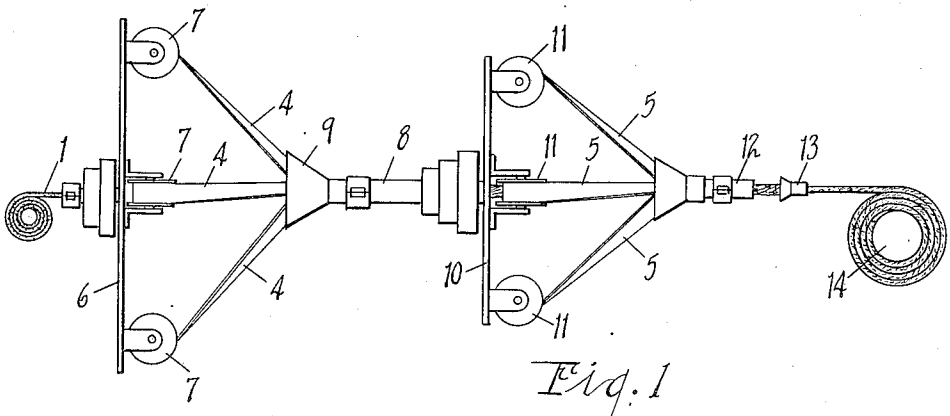


Fig. 1

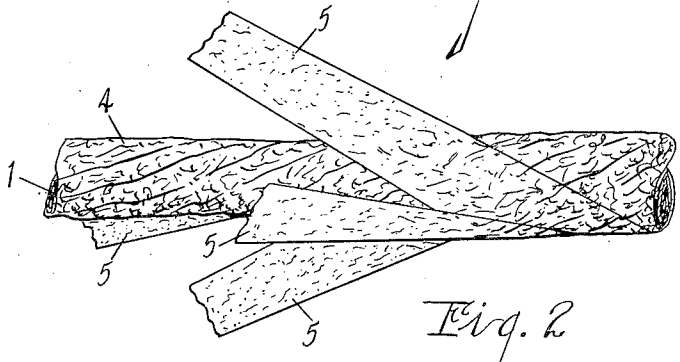


Fig. 2

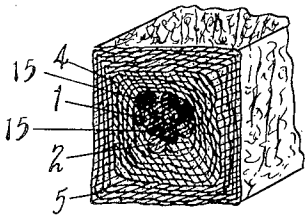


Fig. 3

INVENTOR
Charles C. Hall
BY Chappell & Earl
ATTORNEYS

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CHARLES C. HALL, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO DURAMETALLIC CORPORATION, OF KALAMAZOO, MICHIGAN, A CORPORATION OF MICHIGAN

PACKING

Application filed January 17, 1930. Serial No. 421,394.

The main object of this invention is to provide an improved packing which is adapted for use in a large number or variety of relations, the packing being in the form of strips to be applied as desired.

A further object is to provide a packing presenting a metallic wearing surface of substantial thickness, and at the same time has a substantial amount of resiliency.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawing, in which:

Fig. 1 is an illustration mainly conventional of a machine employed by me in the manufacture of my improved packing and illustrating the general character of the packing.

Fig. 2 is an enlarged detail showing further details of the method of making.

Fig. 3 is a fragmentary perspective view of my improved packing.

My improved packing consists of a core designated generally by the numeral 1. This core is preferably formed, as in the embodiment illustrated, of a plurality of strands 2 of asbestos fiber and a plurality of strands 15 of rubber, these strands being intermingled and preferably twisted into a cable, or they may be arranged in parallel relation side by side. The core is of substantial diameter. For certain purposes, the rubber strands may be omitted.

This core is spirally wound with strips of metal foil 4 and 5, the strips 4 being spirally wrapped upon the core and the strips 5 being spirally wrapped upon the body consisting of the core and the strand wrapping 4.

The strips 4 and 5 are formed of thin sheet metal or metal foil such as lead or suitable alloy or aluminum foil treated to render it anti-frictional, the aluminum foil being used where the packing is to be employed under high temperature conditions. As the strips are wrapped upon the core, they are crinkled and compressed by means of forming dies. The strips are preferably coated with lubricant preferably graphite and an oil, the crinkling and compressing forming pockets which effectively retain the lubricant.

The packing while presenting a wearing surface of the lubricated metal is sufficiently yielding so that it conforms to the part to be packed and to the gland or packing box and the metal part is yieldingly urged against the part to be packed. The core further adds to the strength of the material, binding the metal in position when arranged within a packing box or gland.

In Fig. 1, I illustrate an apparatus or machine for forming the packing, the core 1 being delivered axially of the rotary turret or head 6 carrying the spools 7 for the strips 4, the rotation of the head wrapping the strips around the core as it enters the forming and compressing die 8. This die 8 is provided with a flared mouth 9 to guide the strips thereto. A second turret or head 10 is provided with carrying spools 11 for the strips 5, a second forming and compressing die 12 being associated with the head 11 so that as these strips are spirally wrapped upon the core, they are crinkled and compressed and compacted. A compressing die 13 is arranged at the rear of the die 12 and in advance of the reel conventionally illustrated at 14.

My improved packing is very desirable in that it presents a very substantial body of metal to receive the wear, this being bound together and resiliently supported by the core.

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

1. A packing comprising a core in the form of a cable consisting of a plurality of bare strands of asbestos fiber and a plurality of bare strands of rubber, and a plurality of strips of metal foil coated with graphite and oil, crinkled and spirally wrapped and compressed upon said core.

2. A packing comprising a core in the form of a cable consisting of a plurality of uncoated strands of asbestos fiber and a plurality of strands of rubber, and a plurality of strips of metal foil wrapped and compressed upon said core.

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3. A packing consisting of a core in the form of a cable comprising a plurality of bare strands of rubber and a plurality of bare strands of fibrous material intermingled, and a plurality of strips of metal foil wrapped and compressed upon said core.

4. A packing consisting of a core in the form of a cable comprising a plurality of bare strands of rubber and a plurality of strips of metal foil wrapped upon and compressed upon said core.

5. A packing provided with a core in the form of a cable consisting of longitudinal uncoated strands of rubber and fiber.

In witness whereof I have hereunto set my hand.

CHARLES C. HALL.