Sept. 28, 1926.

1,601,381

E. M. THOMPSON

METALLIC PACKING

Filed August 28, 1924

Fig. 1.

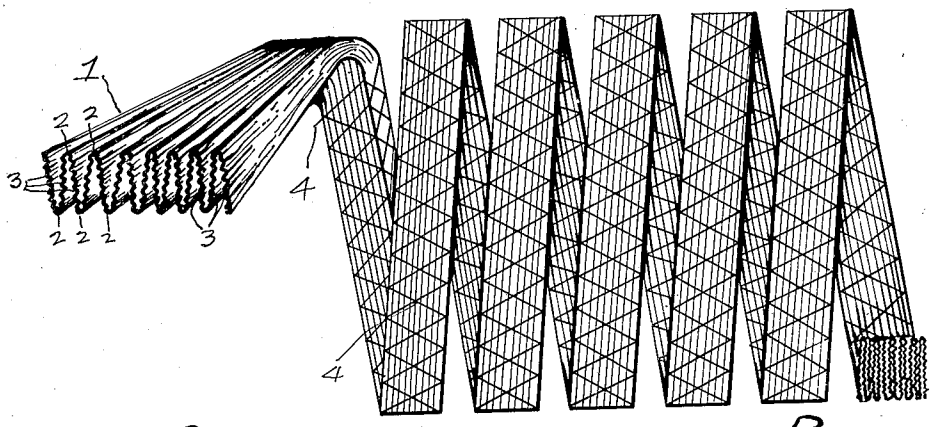


Fig. 3.

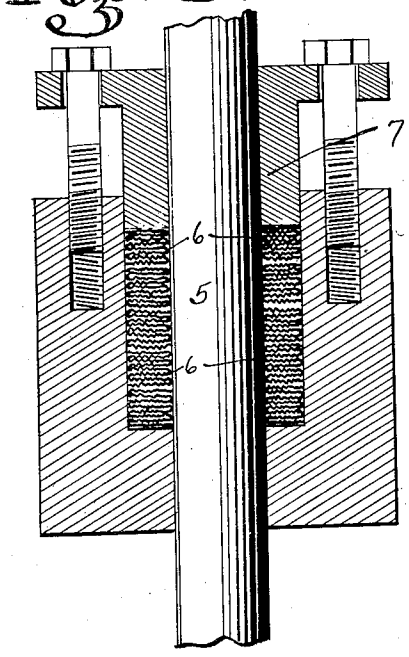
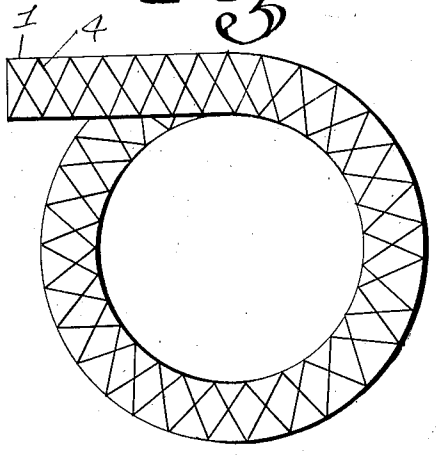


Fig. 2.



INVENTOR.

E. M. THOMPSON

BY Lucien A. Johnson

ATTORNEY

Patented Sept. 28, 1926. 1,601,381

UNITED STATES PATENT OFFICE.

EUGENE M. THOMPSON, OF SAN FRANCISCO, CALIFORNIA.

METALLIC PACKING.

Application filed August 28, 1924. Serial No. 734,665.

This invention relates particularly to a metallic packing adapted to be mounted around the working parts of pumps, engines and other machines for the purpose of preventing fluid, gaseous, lubrication and other losses.

An object of the invention is to provide a metallic packing formed of plural layers of crinkled metal foil, so arranged that the side edges of the foil layers will lie in contactual relationship with the element desired to be packed.

A further object of the invention is to provide a metallic packing, formed of plural layers of metal material, and having the surface of the element to be packed, engaged by packing which will not flake or disintegrate under constant usage.

Other objects of the invention are to provide a packing that will be superior in point of simplicity, inexpensiveness of construction, positiveness of operation, and facility and convenience in use and general efficiency.

In this specification and the annexed drawings, the invention is illustrated in the form considered to be the best, but it is to be understood that the invention is not limited to such form, because it may be embodied in other forms, and it is also to be understood that in and by the claim following the description, it is desired to cover the invention in whatsoever form it may be embodied.

In the accompanying one sheet of drawings.

Fig. 1 represents a side elevation of a length of packing, coiled for shipment, and showing an end thereof spread out.

Fig. 2 is an end elevation of Fig. 1.

Fig. 3 is a section through a packing gland showing my packing in operative position therein.

Many of the standard types of metallic packings, used for packing rods, stems, and the like on engines, pumps and other machinery, are generally formed of thin metal foil, preferably Babbitt metal, lead or tin, crinkled or folded in some desirable manner which generally flakes or disintegrates after constant usage so that the packing loses its effectiveness for packing purposes. The conventional packing material is not so constructed that it can be subjected to compression strains, so that it may be advanced or stretched, to occupy the space occupied by packing material which wears away under usage.

In detail, the construction illustrated in the drawings, comprises, a single sheet of flat metal foil 1 on which I provide a plurality of longitudinal creases 2 at equidistant intervals and on said creases the sheet may be folded, in "fan-fold" relationship, into a stack of superposed layers 3. The metal foil preferably consists of Babbitt, lead or tin, or some other non-abrasive metal, individually or compounded, as practice has proven such material to be the most effective for the purpose desired. If desired the foil material would first be coated or treated with graphite or some other desired lubricant.

In order to hold the stack of foil layers 3 together, I wrap a covering of material 4 therearound which is somewhat stronger than the packing material. Although I have found it to be good practice to wrap the packing with a covering 4, I do not wish to be limited thereto, inasmuch as the said packing can be compressed together, in the process of manufacture, so as not to require any extraneous holding means. Furthermore, although I have shown the packing material as being formed from a single sheet of metal foil 1, creased and folded to the desired form, it is to be understood that it would be clearly within the purview of the invention to stack individual sheets of metal foil together so that there would be no integral connection between adjacent sheets.

Each layer of metal foil is thoroughly crinkled or corrugated so that the actual width of a layer of the foil is substantially one-half of its flattened or normal expanded width. My object in crinkling the layers 3 is for the purpose of providing a packing which may be expanded or compressed when in a working condition so as to take up for any slack or wearing away that occurs on the packing coming in contact with a moving element 5. In my packing the rubbing or friction of the moving element 5 occurs on the edge 6 of the packing, and thus as the packing wears away, pressure may be exerted on the packing gland 7 to compress the corrugated layers of packing, and to flatten it out and thus keep the edges 6 of the packing material in constant contact with the moving element desired to be packed. I have found that the wear which occurs on the edges 6 of my packing is conducive to

longer life of the packing than where a wider face of packing would be placed in contact with the moving part 5 and furthermore, flaking and other disintegration of the packing is minimized, and the effectiveness and efficiency of the packing greatly increased.

Having thus described this invention, what I claim and desire to secure by Letters Patent is:—

A coil of metallic packing comprised of plural layers of crinkled metal foil arranged in fan-fold relation, said layers of foil lying at right angles to the axis of the coil of packing; and a retaining means to hold the foil layers together.

In testimony whereof, I have hereunto set my hand at San Francisco, California, this 2nd day of August 1924.

EUGENE M. THOMPSON.