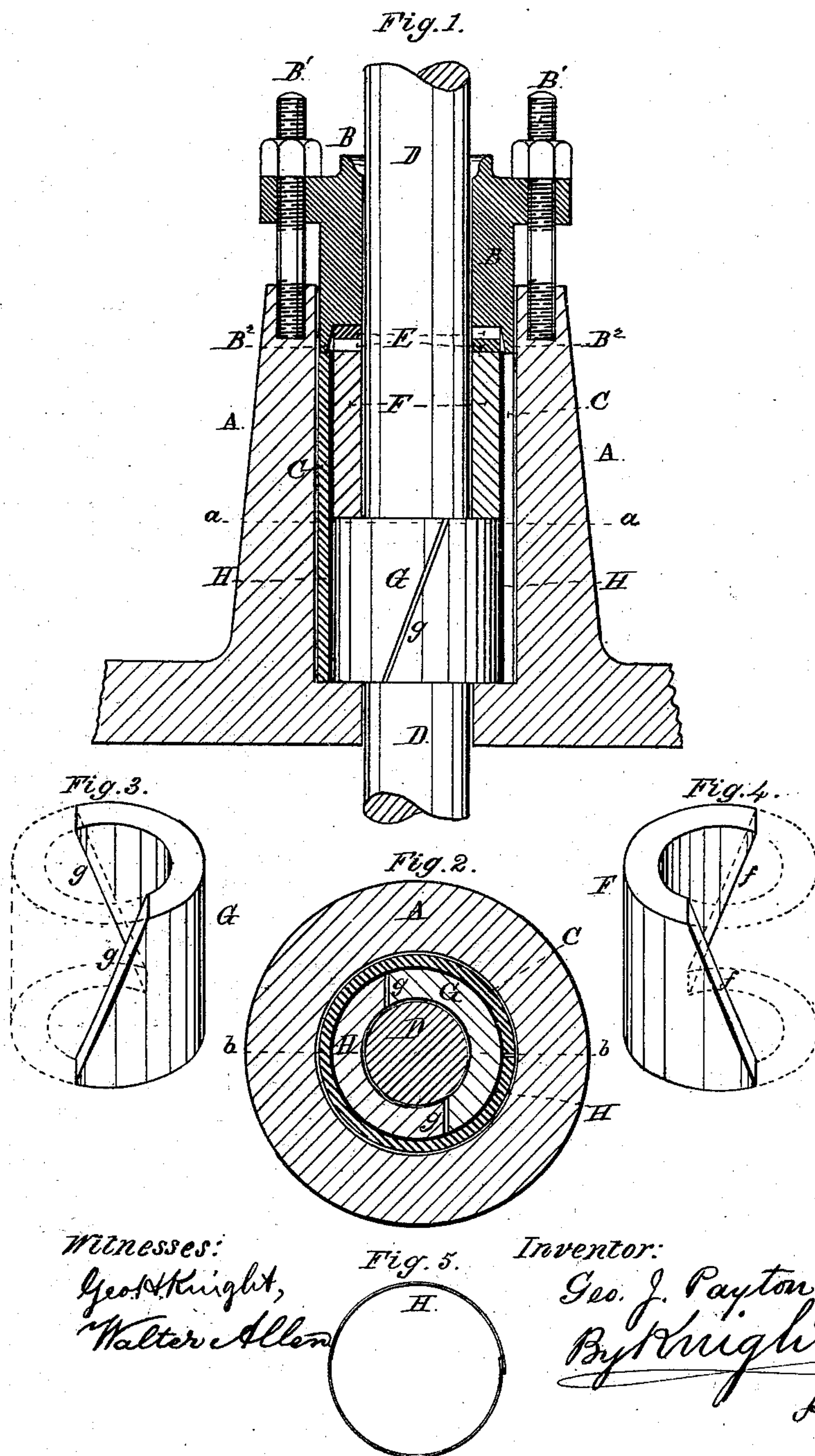


(No Model.)

G. J. PAYTON.
Stuffing Box Packing.

No. 232,542.

Patented Sept. 21, 1880.



UNITED STATES PATENT OFFICE.

GEORGE J. PAYTON, OF EAST ST. LOUIS, ILLINOIS.

STUFFING-BOX PACKING.

SPECIFICATION forming part of Letters Patent No. 232,542, dated September 21, 1880.

Application filed July 21, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. PAYTON, of East St. Louis, in the county of St. Clair and State of Illinois, have invented a certain new and useful Improvement on Stuffing-Box Packing, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

This packing belongs to that class in which the rod is surrounded by packing, which is forced against the rod by steam entering the stuffing-box.

My invention consists in the combination of parts described and claimed hereinafter.

In the drawings, Figure 1 is an axial perspective at line *b b*, Fig. 2. Fig. 2 is a transverse section at line *a a*, Fig. 1. Figs. 3 and 4 are perspective views of the segments forming the metal packing-rings. Fig. 5 is an end view of the thin open cylinder or ring interposed between the metal packing-rings and the inclosing rubber ring.

A is the stuffing-box of a steam-chest or cylinder. No novelty is claimed in the stuffing-box. In fact my improvement is applicable to common stuffing-boxes without alteration.

B is the follower or gland, held in by bolts *B'*, as usual. This has the usual form, except that it is centrally recessed, leaving an annular flange, *B²*, at its inner end. The flange *B²* bears upon the outer end of a cylindrical rubber packing, C, and serves to expand its upper end laterally to form a steam-tight joint with the stuffing-box.

The cylindrical packing-ring C may be made of a sheet of steam-rubber of proper size, bent into the form of a cylinder, to fit the inside of the stuffing-box.

In the central annular recess between the flange *B²* and rod D are flat rings E, of rubber. The inner one of these rings rests against the outer side of the outer metal ring, F, which in turn rests against the outer side of the inner ring, G, fitting in the bottom of the stuffing-box. The rings F and G are each made of two segments, as shown in Figs. 3 and 4. The segments are formed by cutting the ring obliquely, as indicated, one segment being shown in full and the other in dotted lines.

It will be seen the faces *g* of the segments

in ring G (see Fig. 3) slope in an opposite direction to those *f* of the segments of ring F, (see Fig. 4,) so that the segments of one ring cannot slide past those of the other ring, even if quite loose in the box. The construction of the segments is such that each segment holds the other one of the same ring in place, for which reason the ring must be put in and removed bodily, as no derangement of the segments can take place while the rings and other parts are in the stuffing-box.

Between the rubber ring C and the segmental metal rings F and G is a thin sheet of copper or other metal, H, bent into a cylindrical form. (See Fig. 5 and heavy lines in Figs. 1 and 2.) This thin cylinder prevents the substance of the rubber ring C entering the joints of the metal rings at *f g*. This plate H being thin, and one side being left open, it readily springs inward and outward as the steam-pressure is present or absent in the stuffing-box.

Having fully described my invention, I will say that the steam is prevented from escaping from the stuffing-box by the rubber rings E and C, and by forcing in the segmental rings prevents the escape of steam along the rod. When there is no pressure of steam in the stuffing-box the rod runs easy in the packing.

I claim as my invention—

1. The combination, with the stuffing-box and gland, of metal rings F G, composed of segments jointed together, as described, surrounding rubber rings C, and cap ring or rings E, substantially as set forth.

2. In combination with stuffing-box A and rings C, E, F, and G, the gland B, with flange *B²*, constructed and arranged as shown, and for the purpose set forth.

3. The combination of stuffing-box A, gland B, rubber ring C, flexible metal ring H, and segmental metal rings F G, all arranged substantially as set forth.

In testimony of which invention I have hereunto set my hand this 13th day of July, 1880.

GEORGE J. PAYTON.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.