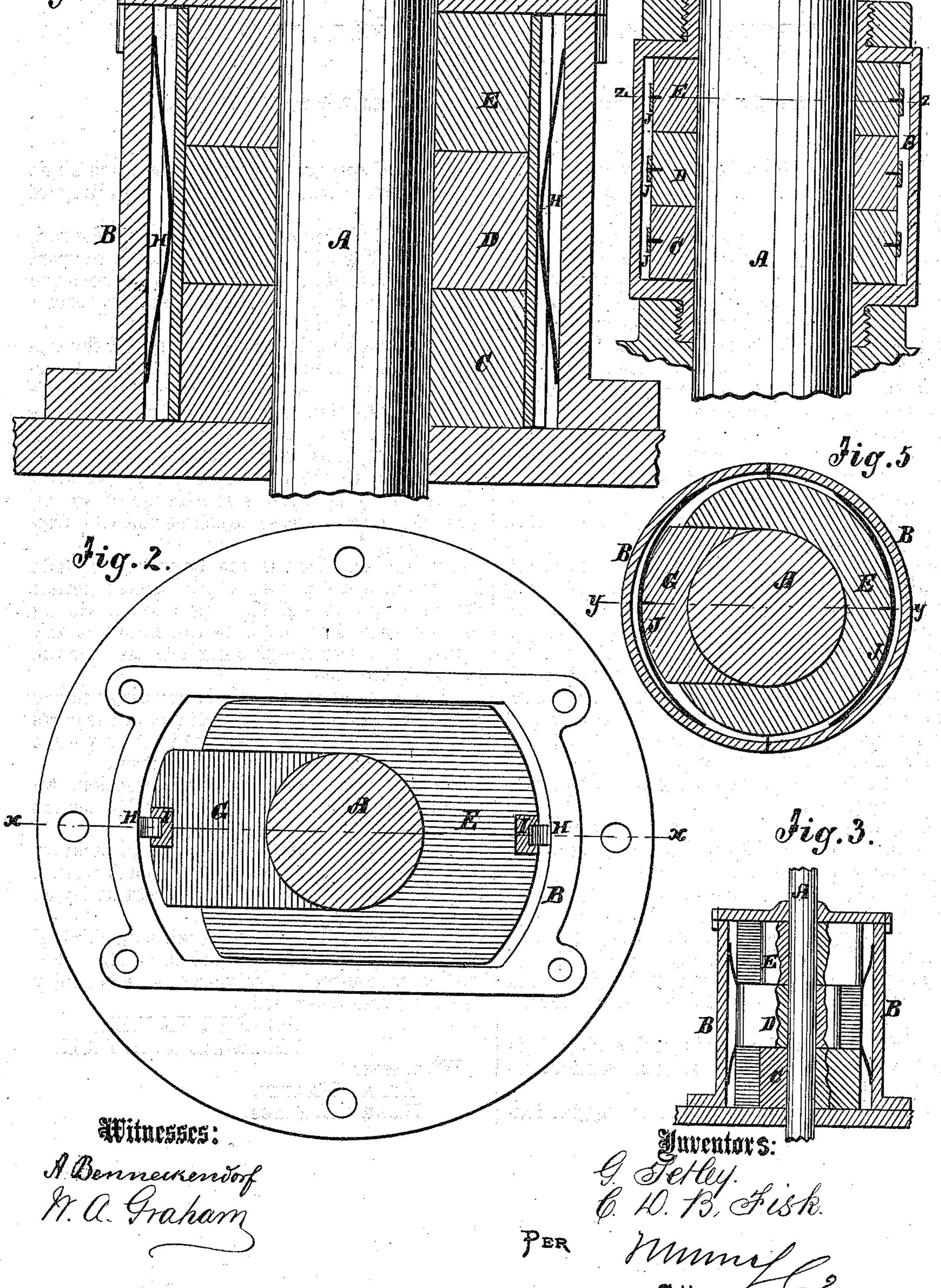
G. TETLEY & C. D. B. FISK.

Improvement in Piston and Valve-Rod Packing.

No. 126,997.

Patented May 21, 1872.



## UNITED STATES PATENT OFFICE.

GEORGE TETLEY AND CHARLES D. B. FISK, OF PROVIDENCE, RHODE ISLAND.

## IMPROVEMENT IN PISTON AND VALVE ROD PACKINGS.

Specification forming part of Letters Patent No. 126,997, dated May 21, 1872.

Specification describing a new and useful Improvement in Metallic Packing, invented by George Tetley and Charles D. B. Fisk, of Providence, in the county of Providence and State of Rhode Island.

This invention relates to a new and useful improvement in metallic packing for piston and valve rods, and for all similar purposes; and consists in the construction and arrangement of parts hereinafter described.

In the drawing two styles or modes of using the same device are shown, one round or in the ordinary form and one rectangular; but we do not confine ourselves to any particular form or manner as far as the shell or box is concerned.

In the accompanying drawing, Figure 1 is a vertical section of Fig. 2 taken on the line xx. Fig. 2 is a top view of Fig. 1, with the cap off. Fig. 3 is a vertical section of Fig. 2, showing the packing in a different position. These three figures show the elongated shell or casing and vertical springs for setting up the packing. Figs. 4 and 5 show the round or circular shell or casing with horizontal springs, the former being a vertical section of Fig. 5 on the line yy, and the latter a horizontal section of Fig. 4 on the line zz.

Similar letters of reference indicate corresponding parts.

A represents the piston-rod or valve-rod. B is the box or shell within which the packing is placed. This packing is applied in sections, three, more or less, marked C, D, and E. Each section is made in two parts, F and G, each being pressed up to the rod by springs.

In Figs. 1, 2, and 3 the vertical spring H is employed, confined in the grooved slides I, and bearing against the shell, as seen in Figs. 1 and 3.

In Figs. 4 and 5 a horizontal spring, J, is employed for each part of each section, arranged as seen in Fig. 5.

We do not confine ourselves to any particu-

lar kind of spring, as springs of various kinds may be employed arranged in a variety of ways.

The parts F G are turned out to fit the rod, as seen in Figs. 2 and 5. The sides of the part F, being extended in a straight line from the center of the rod a sufficient distance, form a guide for the part G.

As the packing is applied to the rod the sections are reversed, so that in the second section the part G will be in contact with the part F. The next or outer section is in a reverse position with the middle one. When the packing is arranged in this manner and pressed up to the rods by springs, as shown in the drawing, there is no leakage of steam, and the springs are so adjusted that the friction is slight.

Fig. 2 is a top view of Fig. 1, with the cap off. Fig. 3 is a vertical section of Fig. 2, showing the packing in a different position. These three figures show the elongated shell or casing and vertical springs for setting up the packing. Figs. 4 and 5 show the round or cirpurpose intended.

In Figs. 4 and 5 the casing or box is made in two parts, the parts being secured together by the screw-nuts K K. The shell or casing in each case is attached to the gland in any manner to make the packing effective for the purpose intended.

We do not confine or limit ourselves to the precise form or arrangement of any of the parts described, as they may be varied in many ways without departing from our invention.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. Valve-rod or piston-rod metallic packing, composed of one or more sections, each section composed of the parts F G, substantially as shown and described.

2. The shell or box B, metallic packing F G, and springs H J, arranged in combination with a piston-rod or valve-rod, substantially as shown and described.

GEORGE TETLEY. CHARLES D. B. FISK.

Witnesses:

HENRY MARTIN, HENRY K. AMES.