

G. W. HARRISON.  
Elastic Pitman Connection.

No. 160,426.

Patented March 2, 1875.

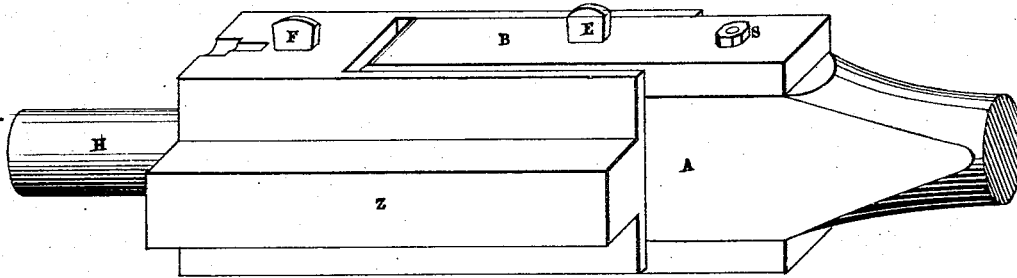


Fig 1

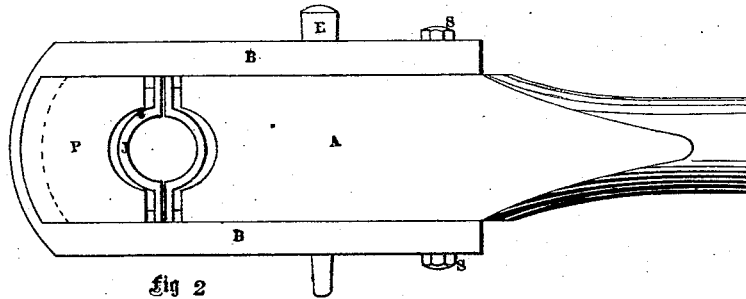


Fig 2

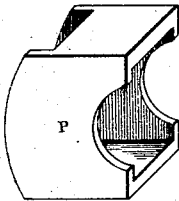


Fig. 3.

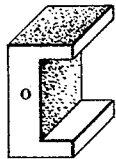


Fig 4

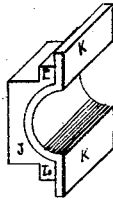


Fig 5

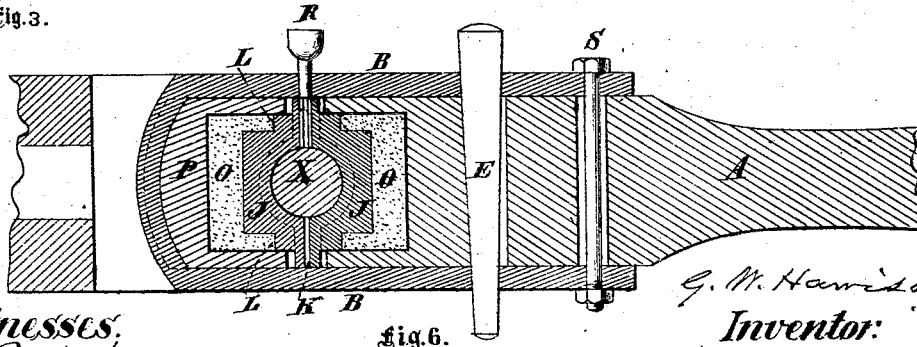


Fig. 6.

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# UNITED STATES PATENT OFFICE.

GEORGE W. HARRISON, OF LANSING, MICHIGAN.

## IMPROVEMENT IN ELASTIC PITMEN-CONNECTIONS.

Specification forming part of Letters Patent No. **160,426**, dated March 2, 1875; application filed July 7, 1874.

*To all whom it may concern:*

Be it known that I, GEORGE W. HARRISON, of Lansing, in the county of Ingham and State of Michigan, have invented a new and useful Improvement in Elastic Pitmen-Connections; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings making part of this specification, in which—

Figure 1 is a perspective view of the pitman-connection and cross-head. Fig. 2 is a sectional elevation of the same. Fig. 3 is a perspective view of the recessed chamber, which receives one of the elastic blocks. Fig. 4 is a perspective view of one of the elastic blocks. Fig. 5 is a perspective view of one of the metallic boxes; and Fig. 6 is a vertical longitudinal section of the pitman-connection, showing all the parts.

The same letters are employed in all the figures in the indication of identical parts.

This invention relates to improvements made in the rubber-faced boxes for pitmen-connections patented by me September 26, A. D. 1871, as set forth in Letters Patent of the United States numbered 119,356.

The following description and claims will indicate the particular point of improvement.

In the annexed drawings, A is the end of the pitman, which, in the case illustrated, represents the pitman of a steam-engine. It is constructed with a recessed chamber in the end to receive the india-rubber block O and the metallic box J, including the shoulder L. The form of the elastic block is clearly shown in Fig. 4, and in section in Fig. 6. The metallic box is shaped as shown in Fig. 5. The flanges K extend entirely across, but not in contact with, the end of the pitman to the strap B. The shoulders L L extend to the sides of the recess in the end of the pitman, and sustain the projecting ends of the elastic blocks O, which are thus entirely inclosed in the chamber formed in the end of the pitman by the metallic boxes. A recessed cap, P, shown in Fig. 3, and in section in Fig. 6, has a cham-

ber formed to receive the elastic block and metallic box, in all respects like that described for the end of the pitman. It has flanges on the outer end on each side to receive the strap B, which is constructed in the usual manner, and fastened by the key E and bolt S.

The boxes inclose the pin X in the cross-head, which is attached to the end of the piston; the wings Z being engaged in the guides. An oil-cup, R, is provided for the proper lubrication of the boxes. The pitman may be similarly constructed at the other end to receive the crank-pin. The elasticity of the blocks of india-rubber or other equivalent elastic material will save the pitman from strain and sudden shocks.

In my said former Letters Patent I have covered the general principle of the improvement, and in this application I seek only to cover the special construction shown, which is distinguished from my said former Letters Patent in the use, in combination with the recessed end of the pitman, of shouldered boxes, which, when united, form the chamber which incloses the elastic block; and also in combining with the parts last mentioned recessed caps and straps, which constitute a better pitman-connection than the one formerly patented by me.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the recessed end of the pitman, the shouldered metallic boxes J, which together form an inclosed chamber to receive the elastic blocks O, substantially as set forth.

2. In combination with the pitman having a recessed end, the recessed cap P, elastic blocks O, metallic boxes J, and strap B, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE WYMAN HARRISON.

Witnesses:

B. F. SIMONS,  
G. H. COLE.