

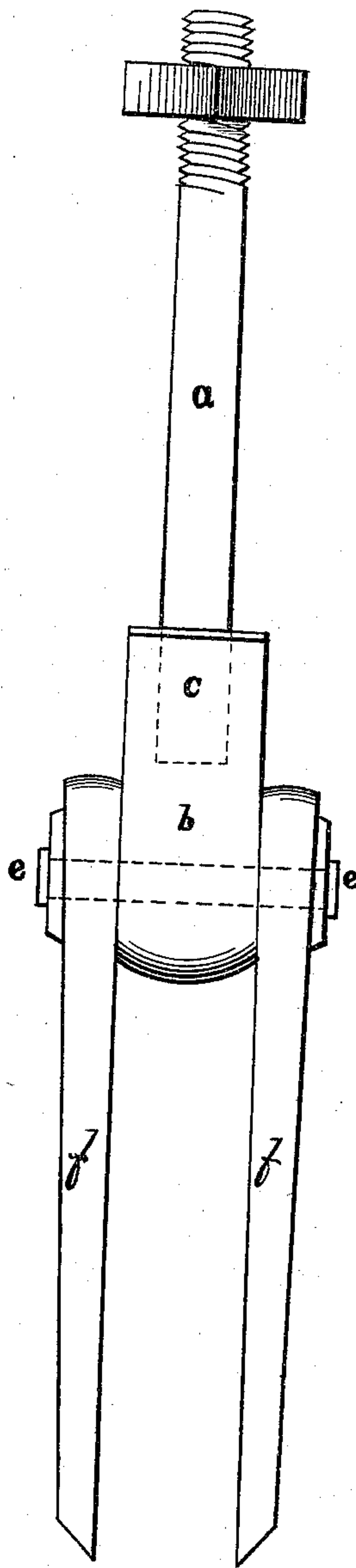
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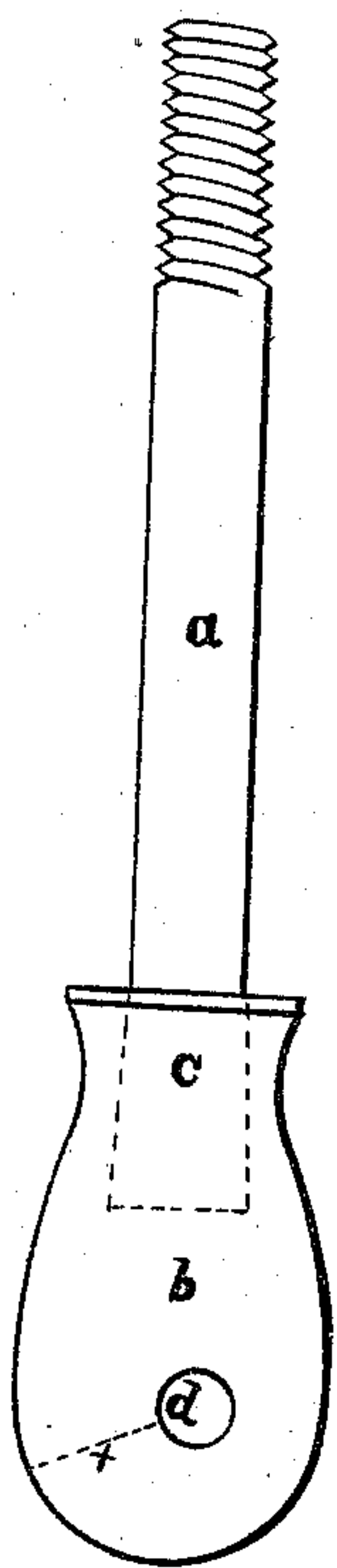
No. 130,527.

Patented Aug. 13, 1872.

*Fig. 2.*



*Fig. 1.*



*Witnesses.*

*Geo. K. Hullock*  
*John Millican*

*Inventors.*

*L. W. Olds*  
*Charles Olds*

# UNITED STATES PATENT OFFICE.

LEWIS W. OLDS AND CLARK OLDS, OF ERIE, PENNSYLVANIA.

IMPROVEMENT IN LINKS FOR CONNECTING THE HANDLES AND PITMEN OF PUMPS.

Specification forming part of Letters Patent No. 130,527, dated August 13, 1872.

*To all whom it may concern:*

Be it known that we, LEWIS W. OLDS and CLARK OLDS, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in the Links Connecting the Handles and Pitmen of Pumps; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and the letters of reference marked thereon, the same forming a part of this specification, in which—

Figure 1 is a view of the link; and Fig. 2 is a view of the link, together with the side straps, which are connected with the piston of the pump, and also the attaching-rivet.

The nature of our invention consists in providing a connecting-link for pumps, which shall be so constructed that it will embody strength, durability, and cheapness of construction.

The link proper, as shown in the accompanying drawing, is composed of two parts, *a* and *b*, of which *b* is the head and *a* the bolt. *a* is of steel and *b* of cast iron, and the two are formed together into one solid whole.

The construction of our link is as follows: The bolt *a*, after being slightly flattened at the head *c*, is laid in the mold, and the part *b* is cast about it. In the head *b* is left an eye, *d*. This eye is placed eccentrically—that is, it is so placed that a greater heft of metal is left on one side of it than on the other. In Fig. 2, *ff* are the iron straps attached to the pitman-rod, and to these, and thus to the pitman-rod, is attached the link by the rivet *e*. The link is then attached to the handle of the pump by the part *a* passing through it, and being secured by the nut shown.

The objects of these several forms of construction are as follows: It will be seen that in the operations of the pump great strain is brought against the part *a* of the link; hence we have found, by experience, that to insure the proper amount of strength that it is necessary to use steel in place of any other metal. It will be seen that by attaching the link to the straps *ff* by a rivet, as is done by us, that the friction is distributed over the whole length

of the rivet *e*, as it is not of sufficient size to fit tight in any of the parts.

We are aware that links having the form and appearance of ours have been constructed heretofore; but, in place of the eye *d* in the head *b*, a bolt is used which is cast solid with the head, as is the part *a*. By that form of construction the friction all comes on the ends of the bolt, which causes it to very soon wear away.

As before stated, our device distributes the friction, and hence does away with the objection just named. The eye *d* is placed eccentrically, for the purpose of giving a greater body of metal in the head *b*, in the direction in which the eye *d* will become worn by use. (See dotted line *x*, Fig. 1.)

We do not claim the casting of one metal within or upon another; nor do we claim the use of any particular metal for any given purpose.

Our invention relates to the precise article of manufacture we produce, the peculiarities of which are, as particularly shown and described, to be the adaptation and arrangement of the different parts thereof with reference to the wear or strain upon them, the assignment of the appropriate metals to the special uses and requirements of the parts, and the connection of these parts together to form the whole, which we have minutely described; therefore,

What we claim as our invention, and desire to secure by Letters Patent of the United States, is—

1. The link connecting the handles and pitmen-rods of pumps, when formed of the parts *a b*, of which *a* is of steel and *b* of cast metal, and arranged together in the manner and for the purposes set forth.

2. The parts *a b*, with the eye *d* placed therein, in the manner and for the purposes shown.

L. W. OLDS.  
CLARK OLDS.

Witnesses:

JNO. K. HALLOCK,  
GEO. W. VAN TASSEL.