

A. B. DOWELL.

Improvement in Trace-Fasteners.

No. 114,654.

Patented May 9, 1871.

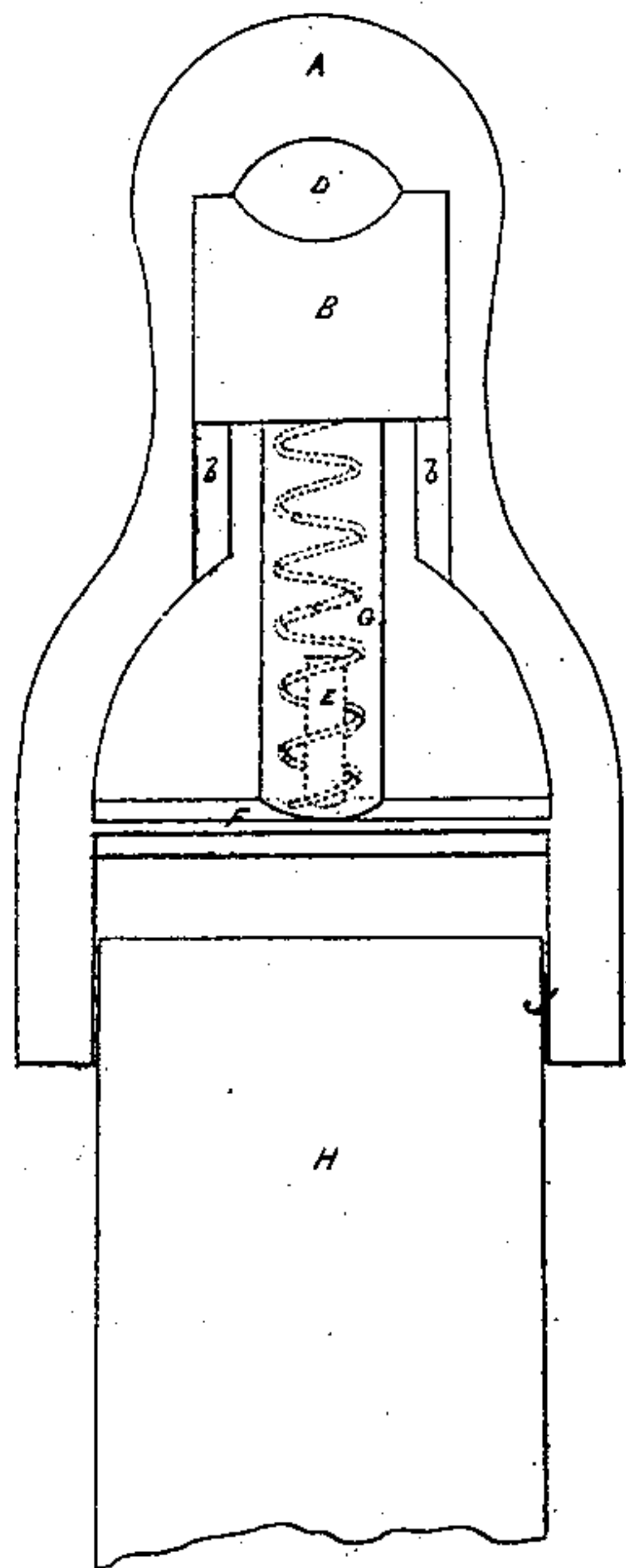


Fig 1

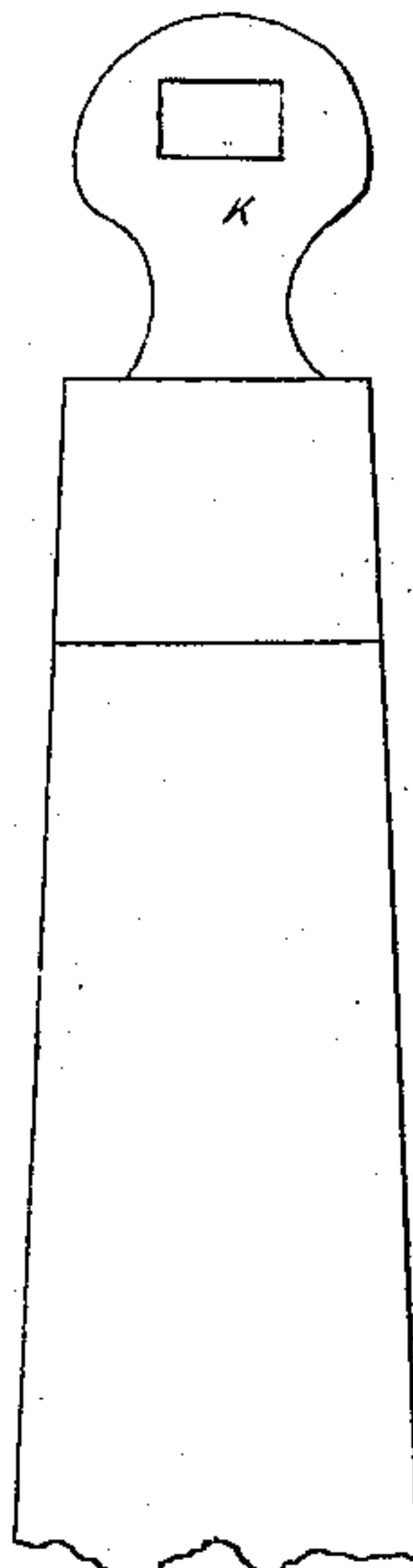


Fig 2

Witnesses.

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ASA B. DOWELL, OF VINTON, IOWA.

Letters Patent No. 114,654, dated May 9, 1871.

IMPROVEMENT IN TRACE-FASTENERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ASA B. DOWELL, of Vinton, in the county of Benton and State of Iowa, have invented a new and useful Improvement in Trace-Fastenings; and I do hereby declare the following to be a full and correct description of the same, sufficient to enable others skilled in the class to which my invention appertains to fully understand the same, reference being had to the accompanying drawing which makes part of this specification, and in which—

Figure 1 is a view of the trace-hook and a section of the trace.

Figure 2 is a view of an ordinary whiffletree.

My invention consists in making the protecting-tube surrounding the spring which operates the sliding bar of elastic material, so that when the spring is contracted the tube is contracted also, thereby enabling me to make all the parts smaller, more compact, and at the same time of great strength.

A is the trace-hook, constructed of iron or other suitable metal, and in the usual shape, with the slide or tongue *b b* raised on each of the inner sides, as shown in fig. 1.

B is a small bar of metal, with a groove on each side made to fit exactly and move on the slides *b b*; and by means of the spiral spring *c c* is held back, leaving a small aperture, D, and when hooked presses firmly against the neck of the whiffletree.

E is a metal post raised on the brace F, and serves to keep the spring *c c* in its position, together with an aperture in the end of the bar B made to receive the end of the spring.

G is a section of rubber tube, of ordinary quality, drawn over the spring to protect and keep it clean.

H is a section of trace, fastened to the hook by the eye *j* in the usual manner.

In fig. 2—

K is the neck or end of an ordinary whiffletree, and the hook is fastened to the same by pressing the bar B up against the spring until the opening D will receive the end of the whiffletree, which will then, by the action of the spring, be firmly held by the trace-hook, and can only be unfastened by grasping the trace and whiffletree and pressing the latter against the spring until the opening will allow it to unfasten.

It will be readily understood that, when the bar B is drawn back and the spring *c* contracted, the protecting-tube G contracts also, still covering the entire spring.

In trace-fastenings where a metal protecting-tube is used the latter has to be of sufficient dimensions to allow the free play of the spring; but by my improvement the tube need be only of the length of the spring, and its size does not interfere with the free operation of the same. It is much cheaper than the metal tube, and by using it the parts can all be constructed more compact and small, thus reducing their weight while not diminishing their strength.

I do not claim, broadly, protecting a spring by a covering-tube, as I am well aware that this is old; and I am also aware that metal or rigid tubes have been used for this purpose in trace-fastenings; nor do I claim this; but

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

In a trace-hook fastening, the combination of the sliding locking-block B, the fixed cross-bar F, and the coil spring *c*, with the inclosing covering flexible tube G, as and for the purpose described.

A. B. DOWELL.

Witnesses:

J. C. FAIR,

J. W. HANNA.