S. P. Sleppy,

Artificial Leg.

No. 54,970. Patented May 22, 1866.

Fig 2

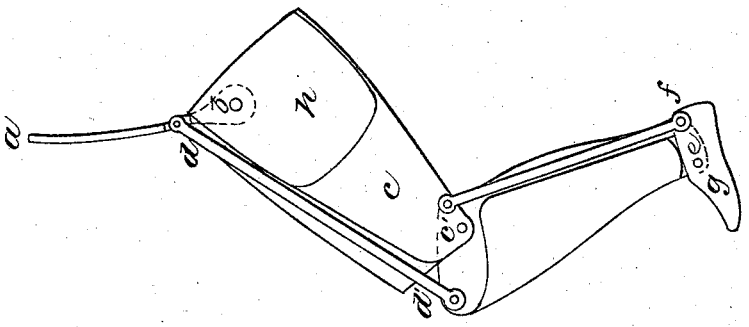
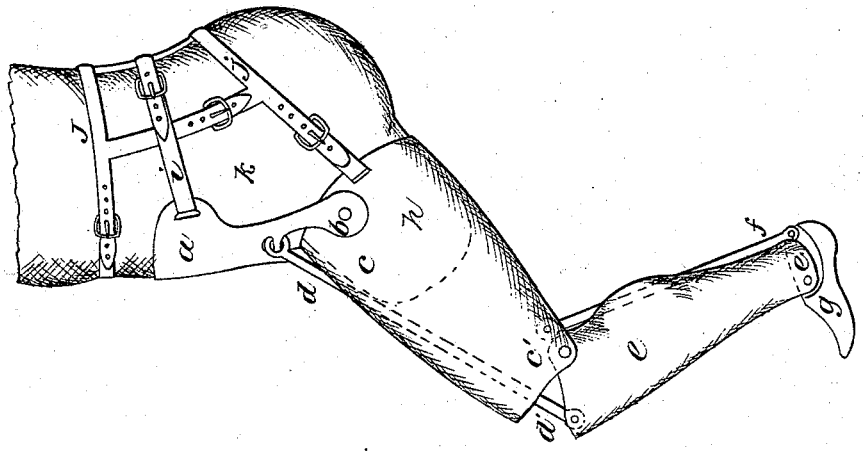


Fig 1



Witnesses:
D. L. Maxwell
D. C. Cooley

Inventor:
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UNITED STATES PATENT OFFICE.

S. P. SLEPPY, OF WILKESBARRE, PENNSYLVANIA.

IMPROVEMENT IN ARTIFICIAL LEGS.

Specification forming part of Letters Patent No. **54,970**, dated May 22, 1866.

To all whom it may concern:

Be it known that I, S. P. SLEPPY, of Wilkesbarre, county of Luzerne, and State of Pennsylvania, have invented a new and useful Improvement on an Artificial Thigh, Leg, and Foot; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a longitudinal section.

It is a well-known fact that artificial legs have been made to swing to their required position by forcing forward the stump of the thigh on which the artificial leg is secured. This mode of artificial legs requires great caution to those walking on them to know if they have been swung forward enough to be safe for the body to rest its weight on; and another objection to that mode of constructing them is that the persons having them on cannot raise themselves up or lower themselves down on these artificial legs by the motion of the stump of the thighs and the mechanism of the artificial legs alone, thus making it necessary to be assisted by persons, or canes, or otherwise, or making it necessary always to advance the real leg while walking up a hill or stairs.

My mode of constructing an artificial thigh, leg, and foot is to enable persons having them on to lower and raise themselves by the motion of the stumps of the thighs and the mechanism of the artificial limbs alone. Thus K is the body, and *h* (represented in dotted lines) is the stump of the thigh. *c* is the artificial thigh, *e* the artificial leg, and *g* the artificial foot. (See Fig. 1, a perspective view, and Fig. 2, a sectional view.)

The artificial thigh *c* has a cavity, *h*, in it for the stump of the thigh to fit in, and on which it is secured by straps *j j j*, or similarly attached to the body.

a is a lever secured to the artificial thigh *c* at or near a point marked *b*, and is fastened to or against the body *k* by straps *i* or in a similar manner.

The rod marked *d* is secured to the lever *a* at or near a point marked *d*, and fastened at its other end to leg *e* at or near a point marked *d'*, and the leg *e* is fastened to the artificial thigh *c* at or near a point marked *c'*, and the leg *e* is fastened to the foot *g* at or near a point marked *e'*.

The rod *f* is fastened to the artificial thigh *c'* at or near a point marked *f*, and fastened at its other end to the foot *g* at or near a point marked *f'*. Thus the artificial thigh *c* is raised up by the stump of the thigh in it being raised up, and as lever *a* rests against the abdomen the rod *d*, being connected to it, is forced forward, and being also connected to leg *e*, the leg *e* is forced back, and as rod *f* is fastened to the thigh *c* and the heel of the foot, the heel is forced down, which raises the toe or front of the foot up; but when the weight of the body is lowered on the limb, or in the act of the body being raised up on it the action is reversed, rods *d* and *f* are drawn on, and a portion of the weight comes against the back by lever *a* drawing on straps *i*.

The pivots are represented at or near letters *b*, *c'*, *d*, *d'*, *e'*, *f*, and *f'*.

What I claim as my improvement is—

1. The combination of the lever *a*, connecting-rods *d* and *f*, thigh *c*, leg *e*, and foot *g*, in this manner and for the purpose described.

2. The combination of the straps *j j j* and *i* with the lever *a*, thigh *c*, leg *e*, foot *g*, connecting-rods *d* and *f*, all arranged and operating substantially as described.

3. The combination of lever *a*, straps *i*, and connecting-rod *d*, substantially as described.

S. P. SLEPPY.

Witnesses:

V. L. MAXWELL,

D. C. COOLEY.