A. THIELE.

WORKING CLAW FOR HAND OR ARM AMPUTATED PERSONS.

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1,421,322. **Patented June 27, 1922.**

Fig. 1.

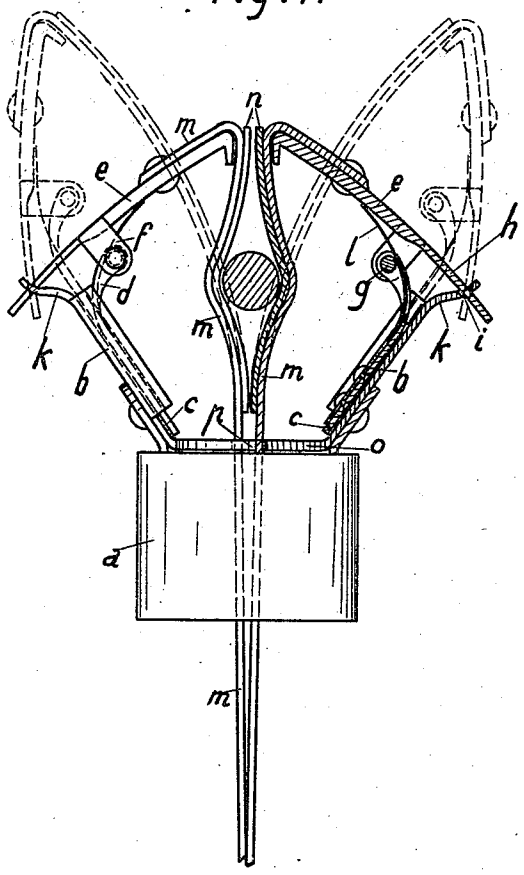
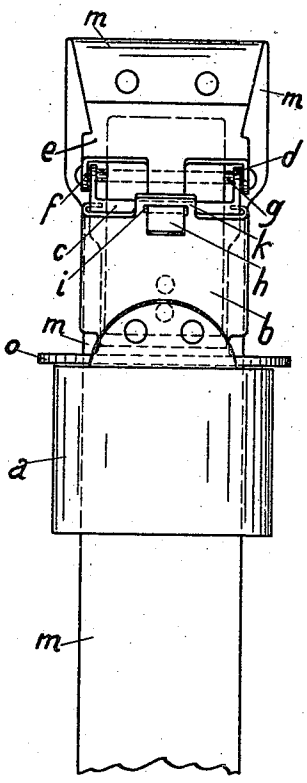


Fig. 2.



Witnesses:
Ed. Thomas Harry
Otto Kälmel

Inventor
August Thiele

UNITED STATES PATENT OFFICE.

ALFRED THIELE, OF DRESDEN, GERMANY.

WORKING CLAW FOR HAND OR ARM AMPUTATED PERSONS.

1,421,322. Specification of Letters Patent. Patented June 27, 1922.

Application filed August 9, 1920. Serial No. 402,477.

To all whom it may concern:

Be it known that I, ALFRED THIELE, a citizen of the German Republic, residing at Dresden, Germany, have invented certain new and useful Improvements in Working Claws for Hand or Arm Amputated Persons, of which the following is a specification.

The working claws of known construction for hand- or arm-amputated persons are claws in the proper sense of the word, because they consist of tong-shaped metal bodies which can produce only a rigid contact, although the said bodies may be padded. The tools suffer from this rigid contact so much that for example agricultural implements which have been used by an amputated labourer can later on not be used by a labourer having two hands. The reason herefor is that the wooden handle has been roughened through having been gripped by the claw. The improved working claw according to this invention is constructed so that this inconvenience is avoided. It offers further the advantage that it can be used equally well for handling a thick object or a thin one, e. g., the handle of a sickle or a string for binding sheaves. The construction of the claw is improved so that the handle gripped by the same can be turned and moved in lateral direction although it is securely held by the claw. The handle can never be damaged as it is not held rigidly but elastically.

In the accompanying drawing the improved working claw is shown in—

Fig. 1 in front elevation, one half in section and in

Fig. 2 in side elevation.

In a sleeve-shaped holder *a* designed to be inserted in a cylindrical support attached to the arm hollow guides *b* are fixed in inclined position, one pointing to the left the other to the right. In each hollow guide *b* a slide *e* is mounted which terminates in a hinge plate *d*. A plate *e* with hinge plate *f* is pivotally mounted at the outer end of each slide *c* through a pivot bolt *g*, said plate being guided with its tail piece *h* in a slot *i* of an extension of the tubular guide *b*. A blade spring *l* fixed to the slide *c* bears with its free end below the pivot bolt *g* against the inner surface of the corresponding plate *e* which is thus continually pressed outward. If therefore the traction exerted upon said plates *e* ceases, said plates *e* are pressed outward through the action of the spring *l* and they are at the same time pushed forward as their tails *h* are held in the slot *i* of the extensions of the hollow guides *b*. This forward movement of the plates *e* is possible because the hinge of the plate *e* is carried by the slide *c*, adapted to move in the hollow guide *b*. To the front end and under surface of each plate *e* a gripping strap *m* is attached which is passed through a transverse slot *p* of the disc *o* which serves as cover for the sleeve *a*. The gripping straps *m*, after having been passed through the sleeve *a* are connected with the traction organ designed to operate the claw. If a pull is exerted upon the straps *m*, which are preferably connected the one with the other behind the sleeve *a*, the claw is closed as shown in the drawing so that it can grip an article, such as the bolt shown in Fig. 1 in cross section, between the gripping straps. Thinner articles are gripped with the outer edges of the plates *e*, that is to say in the middle line of the claw. A lining *n* of suitable material can be fixed upon the surface of the straps *m* in order to make the grip absolutely secure. If the pull upon the straps *m* ceases, the claw is opened automatically through the action of the strong blade-springs as shown in Fig. 1 in dotted lines.

I claim:—

An improved working claw for hand- or arm-amputated persons comprising in combination with a holding sleeve to be placed upon the support fixed to the arm, outwardly inclined hollow guide pieces in said holding sleeve extending to the right and to the left, a lateral extension at the upper end of each hollow guide piece having a guide slot, a slide in each hollow guide, a plate pivotably connected with the outer end of each slide and engaging with its tail piece in the guide slot of the lateral extension of the corresponding hollow guide piece, a blade spring fixed to each slide and bearing against the lower surface of the corresponding hinged plate, a disk upon the upper end of said holding sleeve having two trans-

verse slots, a gripping strap attached with its outer end to the upper surface of the corresponding plate and conducted through the corresponding slot of the said disk to be connected with a traction organ, substantially as described and shown and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED THIELE.

Witnesses:
PAUL THEUERKORN,
OTTO KÄHNEL.