

No. 812,929.

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G. KERNIN.
TONGS.

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Fig. 1.

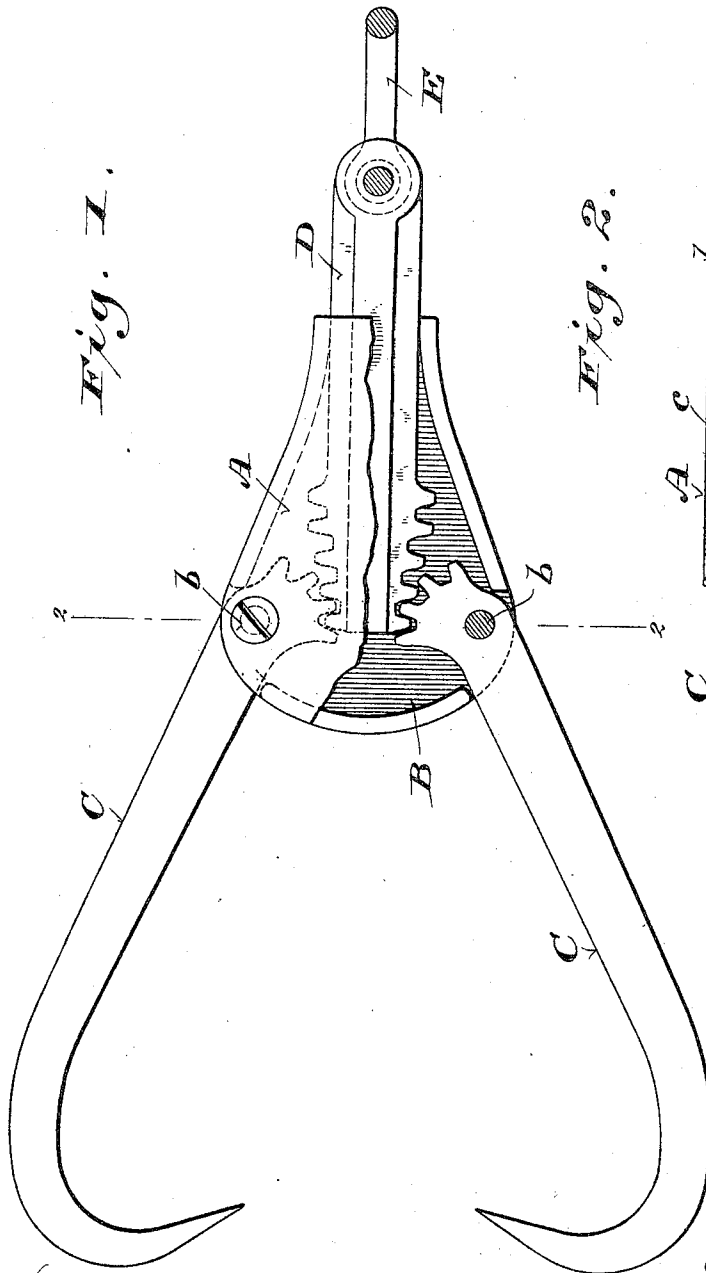
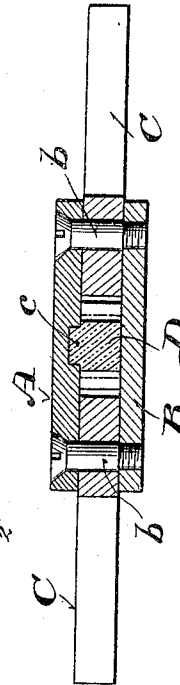


Fig. 2.



Witnesses:
George Felber.
Fred Palm.

Inventor:
Gustav Kernin.
By Oliphant & Young
Attorneys.

UNITED STATES PATENT OFFICE,

GUSTAV KERNIN, OF CRANDON, WISCONSIN.

TONGS.

No. 812,929.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GUSTAV KERNIN, a citizen of the United States, and a resident of Crandon, in the county of Forest and State of Wisconsin, have invented certain new and useful Improvements in Tongs; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in certain peculiarities of construction and combination of parts hereinafter particularly set forth with reference to the accompanying drawings and subsequently claimed, its object being to provide simple, economical, and efficient tongs especially designed for the use of lumbermen in skidding logs, although applicable to a variety of uses.

Figure 1 of the drawings represents a side elevation of my improved tongs, having parts thereof broken away; and Fig. 2, a transverse section view of the same on the plane indicated by line 2 2 in Fig. 1.

Referring by letter to the drawings, A B represent sections of an approximately triangular separable casing having lower side apertures, said sections being held together by bolts *b*, that also serve as pivots for spur-toothed sector ends of a pair of grippers C, that extend through said apertures, said sector ends of the grippers being eccentric on their pivots. The section A of the casing aforesaid has its inner face provided with a central longitudinal groove engaged by a side rib *c* of a sliding draft-bar D, that extends through the open upper end of said casing. The inner end of the draft-bar is tapered and provided with teeth to form racks engaging the sector ends of the grippers aforesaid, and a clevis E is connected to the outer end of said bar in order to facilitate the attachment of the tongs to a draft appliance.

From the foregoing it will be appreciated that outward movement of the draft-bar to cause inward swing of the grippers results in a gradual increase of power upon said grippers, this being an important feature of my improved tongs, particularly when the same are employed in skidding logs, owing to the fact that said tongs will not slip on logs of small diameter, as do the tongs of common knowledge. It is also to be noted that the smaller the diameter of the log the tighter the grip of my improved tongs thereon when the two are engaged.

The tongs being used in connection with logs of large diameter, the leverage on the grippers is less than with tongs of the ordinary construction, and hence the liability of said grippers to bend and break is correspondingly reduced.

The number of teeth of each draft-bar is preferably such that in case of the reduction of the major portion of said teeth by wear said bar may be adjusted one tooth to compensate for said wear and consequent lost motion, the adjustment being effected by taking the tongs apart and reassembling said draft-bar in its engagement with the sector ends of the grippers.

I claim—

1. The combination of a casing provided with side apertures, a pair of grippers that extend through said apertures of the casing and have spur-toothed sector ends eccentric on pivots within the casing, and a sliding draft-bar guided in said casing and having a tapered inner end provided with rack-teeth engaging the teeth of the sector ends of the grippers, the whole constituting tongs.

2. The combination of a separable casing provided with side apertures and having the sections thereof connected by bolts, a pair of grippers that extend through said apertures of the casing and have spur-toothed sector ends eccentric on said bolts, and a sliding draft-bar guided in said casing and having a tapered inner end provided with rack-teeth engaging the teeth of the sector ends of the grippers, the whole constituting tongs.

3. The combination with a casing provided with side apertures and a central inner groove longitudinally thereof, a pair of grippers that extend through said apertures of the casing and have spur-toothed sector ends eccentric on pivots within the casing, a sliding draft-bar having a tapered inner end provided with rack-teeth engaging the teeth of the sector ends of the grippers, and a rib on a side of the bar engaging the groove in the aforesaid casing, the whole constituting tongs.

In testimony that I claim the foregoing I have hereunto set my hand, at Crandon, in the county of Forest and State of Wisconsin, in the presence of two witnesses.

GUSTAV KERNIN.

Witnesses:

H. F. LANDECK,
J. P. LIBBY.