

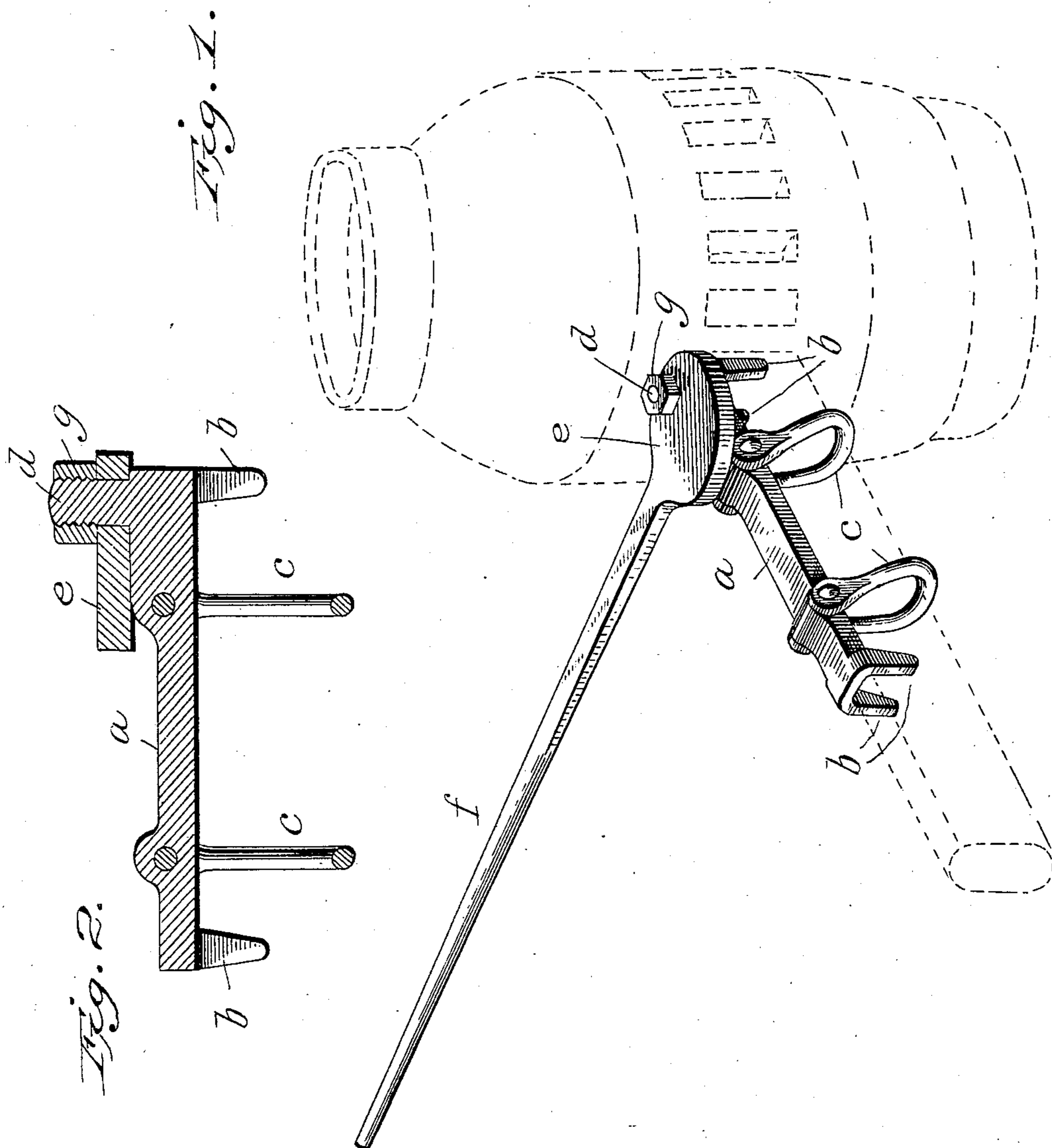
No. 763,423.

PATENTED JUNE 28, 1904.

W. G. PFEIFFER.  
SPOKE EXTRACTOR.

APPLICATION FILED DEC. 10, 1903.

NO MODEL.



WITNESSES

Edwin L. Yewell.  
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# UNITED STATES PATENT OFFICE.

WILLIAM G. PFEIFFER, OF ARLINGTON, NEBRASKA.

## SPOKE-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 763,423, dated June 28, 1904.

Application filed December 10, 1903. Serial No. 184,612. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM G. PFEIFFER, a citizen of the United States of America, and a resident of Arlington, in the county of Washington and State of Nebraska, have invented certain new and useful Improvements in Spoke-Extractors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the device, showing the manner in which it is applied to the spoke; and Fig. 2 is a longitudinal sectional view of the device detached from the spoke.

The object of the invention is to provide a simple, strong, and durable device for extracting worn or broken spokes from hubs; and it consists of certain novel features of construction and combination of parts hereinafter described and claimed.

The device in its preferred form consists of a bar *a*, adapted to lie against the spoke and provided at each end with a fork *b*, adapted to straddle the spoke and keep the bar *a* in alignment therewith. The bar *a* is provided with a pair of swinging links *c*, which are adapted to embrace the spoke and grip it.

Pivoted eccentrically on a pivot-pin *d*, projecting from the upper side of the bar *a* at its inner end, is the cam portion *e* of a cam-lever *f*, said cam portion lying flat upon the upper face of the bar *a* and being held upon the pivot *d* by a nut *g*, screwed on the upper end of said pivot.

The device is applied as shown in Fig. 1—that is, the links are passed over the end of the spoke and the bar *a* is slid inward until its inner end (or the inner edge of the cam portion) strikes against the hub. Then the links are swung inward as far as they will go—that is, until they bite against the edge of the spoke opposite the bar *a*. In this position the lever

will project to the left. Then by swinging the lever *f* around toward the right the eccentric arrangement of the cam portion will cause the edge of the same to be brought against the periphery of the hub and in that manner force outward the bar *a* and carry with it the spoke which is gripped by the links. Should the spoke stick, its removal may be facilitated by tapping it with a hammer near the hub from the bottom. While the spoke is being removed, the wheel will of course be held in any suitable manner on the bench.

This device possesses a number of important advantages. It will be observed that the wheel does not have to be removed from the bench and that the device will grip and remove a very short spoke. It will also be observed that the device is extremely simple, easy to operate, sure and positive in operation, and is very durable, there being no ratchet or other jack devices to get out of order. The device, as will be observed, is also very cheaply and easily manufactured.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a spoke-extractor, the combination of a bar, carrying means for gripping a spoke, and a cam-lever having its cam portion pivoted at the inner end of the bar.

2. In a spoke-extractor, a bar forked at each end and carrying a pair of spoke-gripping links, and a cam-lever having its cam portion journaled at the inner end of the bar, for the purposes set forth.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 7th day of December, 1903.

WILLIAM G. PFEIFFER.

Witnesses:

DANIEL B. PEPPER,  
G. P. PFEIFFER.