(No Model.)

J. A. COREY.

CARRIAGE WRENCH.

No. 481,749. Patented Aug. 30, 1892.

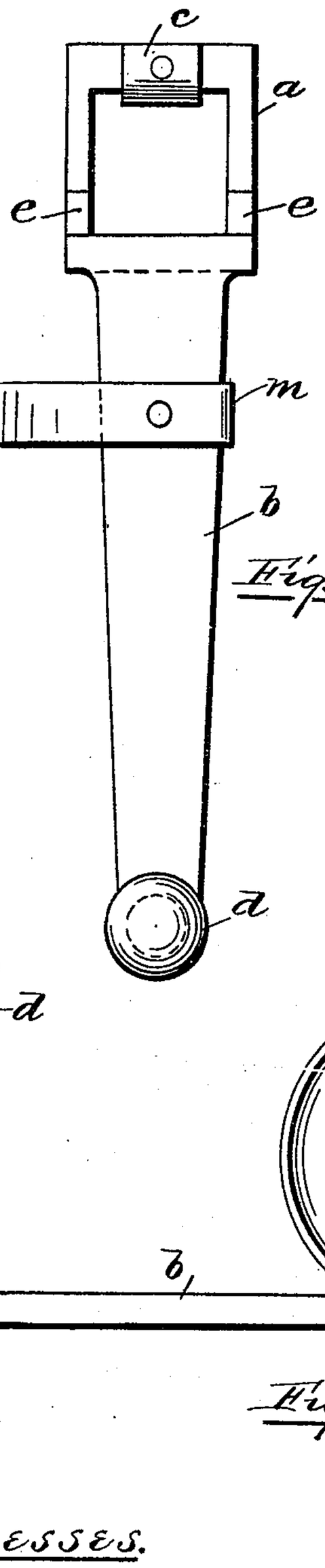

Fig. 1.

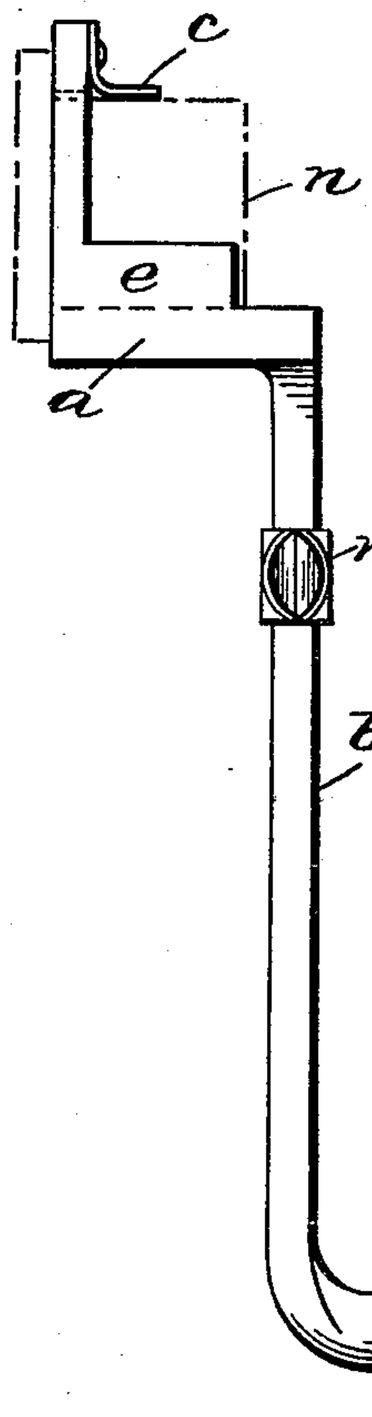

Fig. 2.

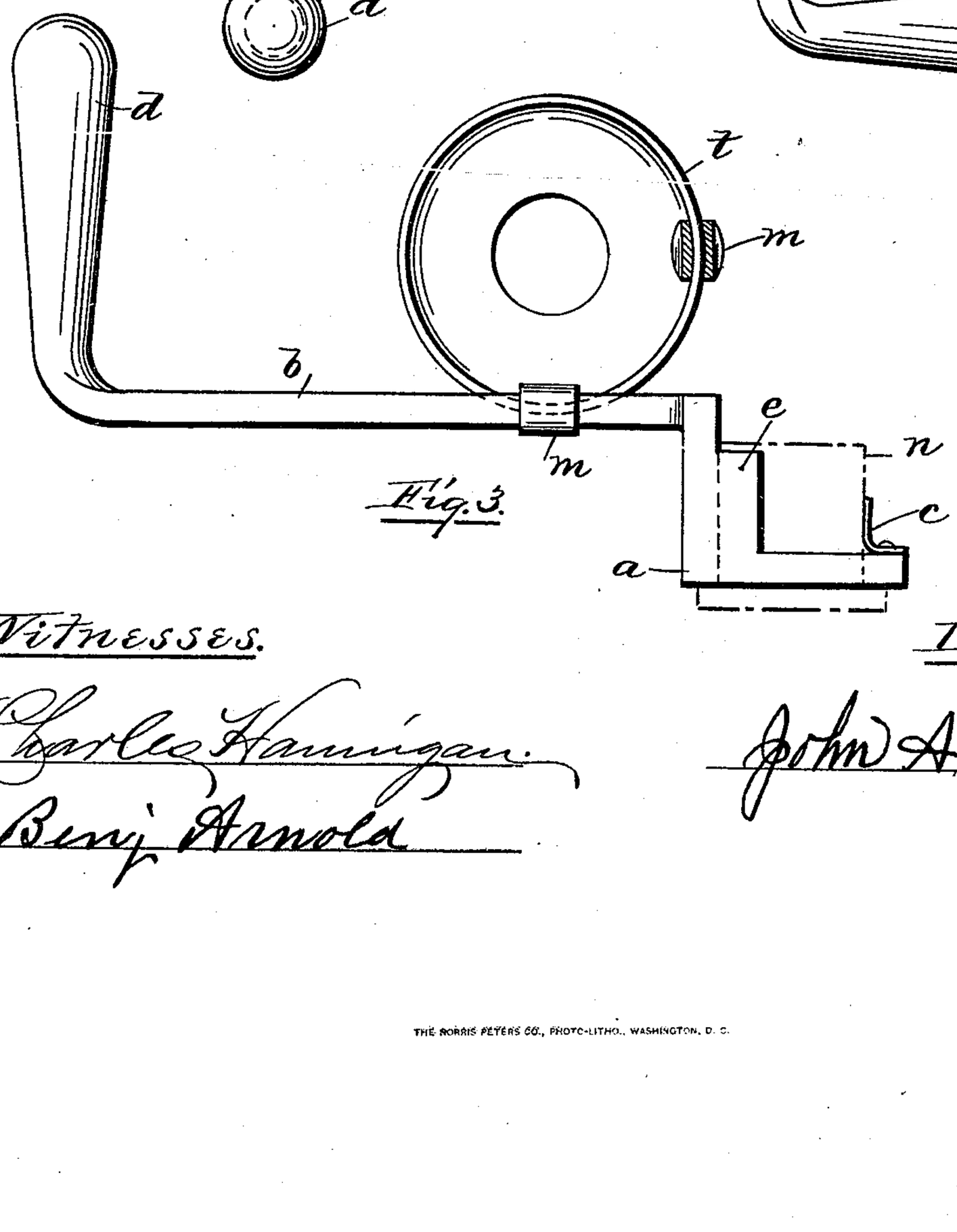

Fig. 3.

Witnesses.

Charles Hannigan.

Benj. Arnold

Inventor.

John A. Corey

UNITED STATES PATENT OFFICE.

JOHN A. COREY, OF HOPE VALLEY, RHODE ISLAND.

CARRIAGE-WRENCH.

SPECIFICATION forming part of Letters Patent No. 481,749, dated August 30, 1892.

Application filed June 15, 1892. Serial No. 436,776. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. COREY, of Hope Valley, in the county of Washington and State of Rhode Island, have invented certain new and useful Improvements in Carriage-Wrenches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of wrenches known as "carriage-wrenches," and is used for turning the screw-nuts on the axles of vehicles. It is fully illustrated in the accompanying drawings.

Figure 1 is a front elevation of the wrench. Fig. 2 shows a side elevation. Fig. 3 represents the way in which the wrench and nut are held on the hub-band of the wheel while the axle is being greased.

This wrench consists of a flat shank *b*, having a square head *a* made on one end with an opening through it of the proper size to go easily over the square portion of the nut *n*. The other end of the shank *b* terminates in a handle *d*. The whole wrench is preferably made in one straight piece of steel by drop-forging and afterward bending the handle *d* up to a right angle to the shank, as shown in the drawings. The head *a* is made as light as is consistent with sufficient strength to turn the nut. Two cheek-flanges *e e* are made—one on each side of the opening in the head—for the purpose of strengthening the head and preventing the wrench from twisting around sidewise when force is applied to the handle *d* to turn a nut off of an axle. A small flat spring *c* is riveted to the outer bar of the head *a* and bent up nearly at a right angle to the bar to which it is fastened, the object of which is to hold the nut from dropping when it comes off of the axle by clasping it between the spring *c* and the broad side of the opening opposite to the spring. A narrow strip of steel is bent around the shank of the wrench and held by a rivet passing through the strip and the shank to form a spring-clasp *m*, the object of which is to afford means for attaching the wrench to the wheel when the latter is taken off of the axle and hold it with the nut *n* while the operator is attending to the axle. Fig. 3 shows how this is done. The two spring ends of the clasp are pushed one on the inside and the other on the outside of the thin edge of the hub-band *t*, which is held between them with sufficient pressure to retain the wrench in position, as shown in Fig. 3, a section of the two parts of the spring-clamp being shown on the right side of the hub with the hub-band between them. By these means the necessity of handling and laying the nut down where it will be liable to have sand or dirt stick to it because of its greasy condition is avoided, also the chance of soiling the fingers in putting it on the axle, for when the wheel is replaced on the axle the wrench and nut will be in the most convenient position for use.

Having thus described my improved wrench, I claim as my invention and desire to secure by Letters Patent—

A carriage-wrench consisting of a shank having a light square open head to receive the nut with cheek-flanges on either side of the opening and a spring attached to its outer bar to hold the nut when off the axle, in combination with a spring-clasp attached to the shank, substantially as described, for the purpose of holding the wrench, as herein set forth.

JOHN A. COREY.

Witnesses:
BENJ. ARNOLD,
JAMES E. ARNOLD.