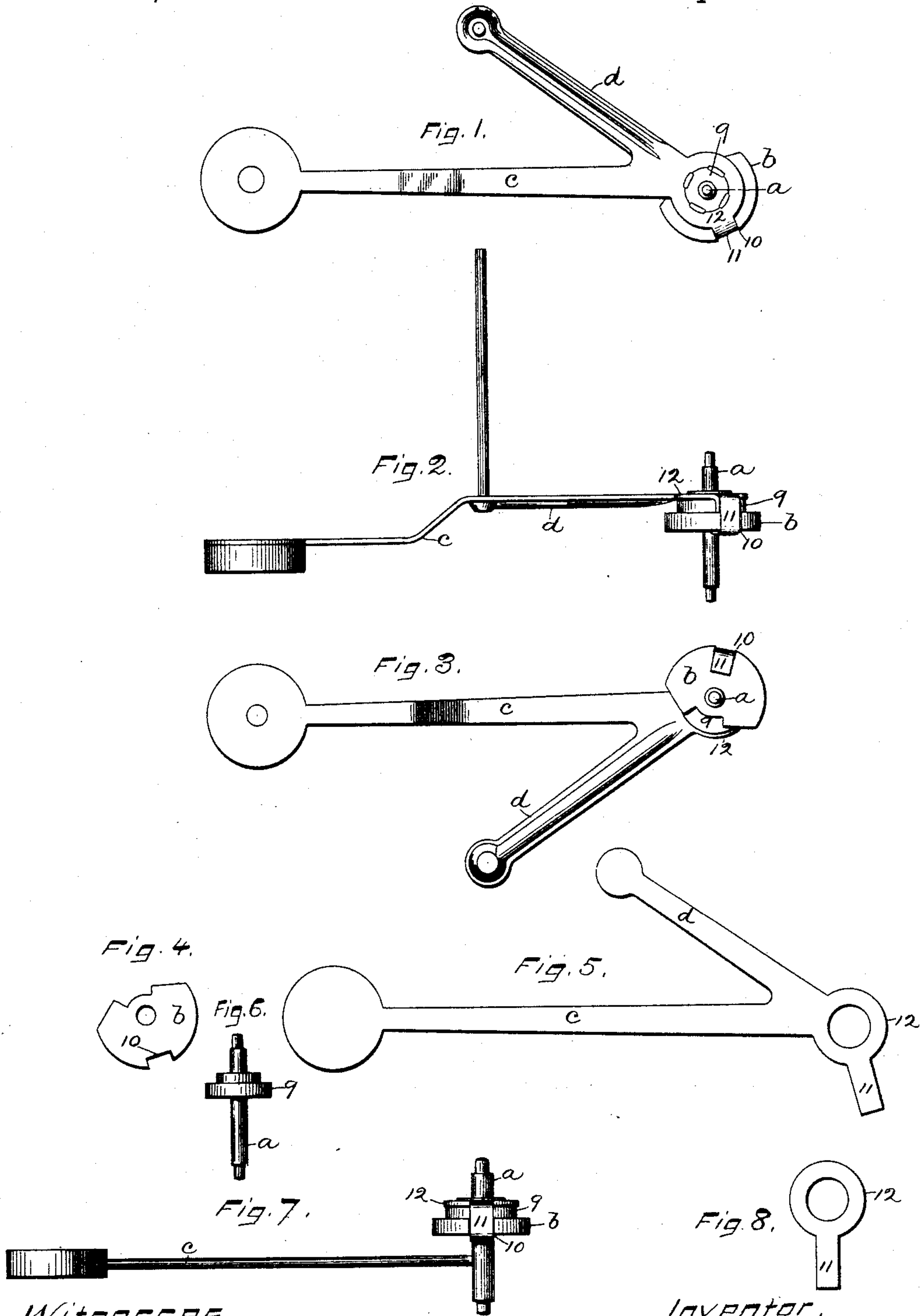


(No Model.)

A. M. LANE.
FASTENING FOR ESCAPEMENT PALLETS.

No. 436,920.

Patented Sept. 23, 1890.



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UNITED STATES PATENT OFFICE.

ALMERON M. LANE, OF MERIDEN, CONNECTICUT.

FASTENING FOR ESCAPEMENT-PALLETS.

SPECIFICATION forming part of Letters Patent No. 436,920, dated September 23, 1890.

Application filed January 17, 1890. Serial No. 337,237. (No model.)

To all whom it may concern:

Be it known that I, ALMERON M. LANE, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Attaching Escapement-Pallets to their Shafts, of which the following is a specification.

My invention relates to improvements in attaching escapement-pallets to their shafts; and the objects of my improvement are simplicity and economy in construction and durability and efficiency in the finished article.

In the accompanying drawings, Figure 1 is a side elevation of a pallet-shaft with hammer and pallet attached in accordance with my invention. Fig. 2 is an edge or plan view of the same. Fig. 3 is a side elevation showing the opposite side from that shown in Fig. 1. Fig. 4 is a side elevation of the pallet alone. Fig. 5 is a side elevation of the blank for the hammer and pallet-holder. Fig. 6 is a detached view of the pallet-shaft and collet. Fig. 7 is a plan or edge view of my attachment, showing the hammer formed separately from the pallet-holder; and Fig. 8 is a side view of the pallet-holder blank.

a designates the pallet-shaft, upon which I secure in the ordinary manner of securing like parts a shouldered collet 9, of brass or other soft metal. The pallet *b*, I cut from a single piece of sheet metal of the proper thickness, perforated to receive the shaft *a*, and notched or recessed on its back edge, as at 10, to receive the fastening-arm 11 of the pallet-holder 12. For convenience of construction in an alarm-escapement, I prefer to form the hammer-shank *c* and its holding-arm *d* in one and the same piece of metal with the pallet-holder 12, as shown in Figs. 1, 2, 3, and 5; but, if desired, the hammer-shank may be formed separately from the pallet-holder 12, as shown in Figs. 7 and 8, without in any way changing the relation of the pallet-holder to the other parts. It is also evident that the relation of the pallet-holder to the other parts would be

the same if employed in escapements for time-pieces instead of alarm movements.

The pallet-holder 12 is cut from sheet metal and provided with a holding-arm 11, as shown. The pallet *b* is hardened when detached from the other parts. The arm 11 of the pallet-holder 12 is preferably bent into a position at right angles to the body of said holder before assembling the parts. The parts being thus constructed, the pallet-holder 12 is placed upon the tenon or shoulder of the collet 9 and rigidly secured thereto by "staking" in the ordinary manner of securing parts to such collets. The pallet *b* is then placed on said shaft on the opposite side of the collet 9 in such a position that the arm 11 is received in the recess 10, and when in place the end of said holding-arm is bent down over the side of the pallet, as shown, thereby firmly and cheaply securing the pallet to the shaft without the use of solder and without danger of cracking or otherwise injuring the pallet, although it may be hardened throughout.

By employing a construction which permits the pallets to be hardened throughout I effect great economy in the hardening process.

I claim as my invention—

1. The herein-described pallet attachment, consisting, essentially, of the shaft and collet, the holder secured upon said collet, and the pallet *b*, secured upon said shaft by said holder, substantially as described, and for the purpose specified.

2. The combination of the shaft, the shouldered collet secured thereon, the pallet-holder 12, secured on the shoulder of said collet and having the holding-arm 11, the pallet *b*, having the recess 10 placed upon the shaft at the other side of said collet with said holding-arm engaging said recess, substantially as described, and for the purpose specified.

ALMERON M. LANE.

Witnesses:

JAMES SHEPARD,
JOHN EDWARDS, Jr.