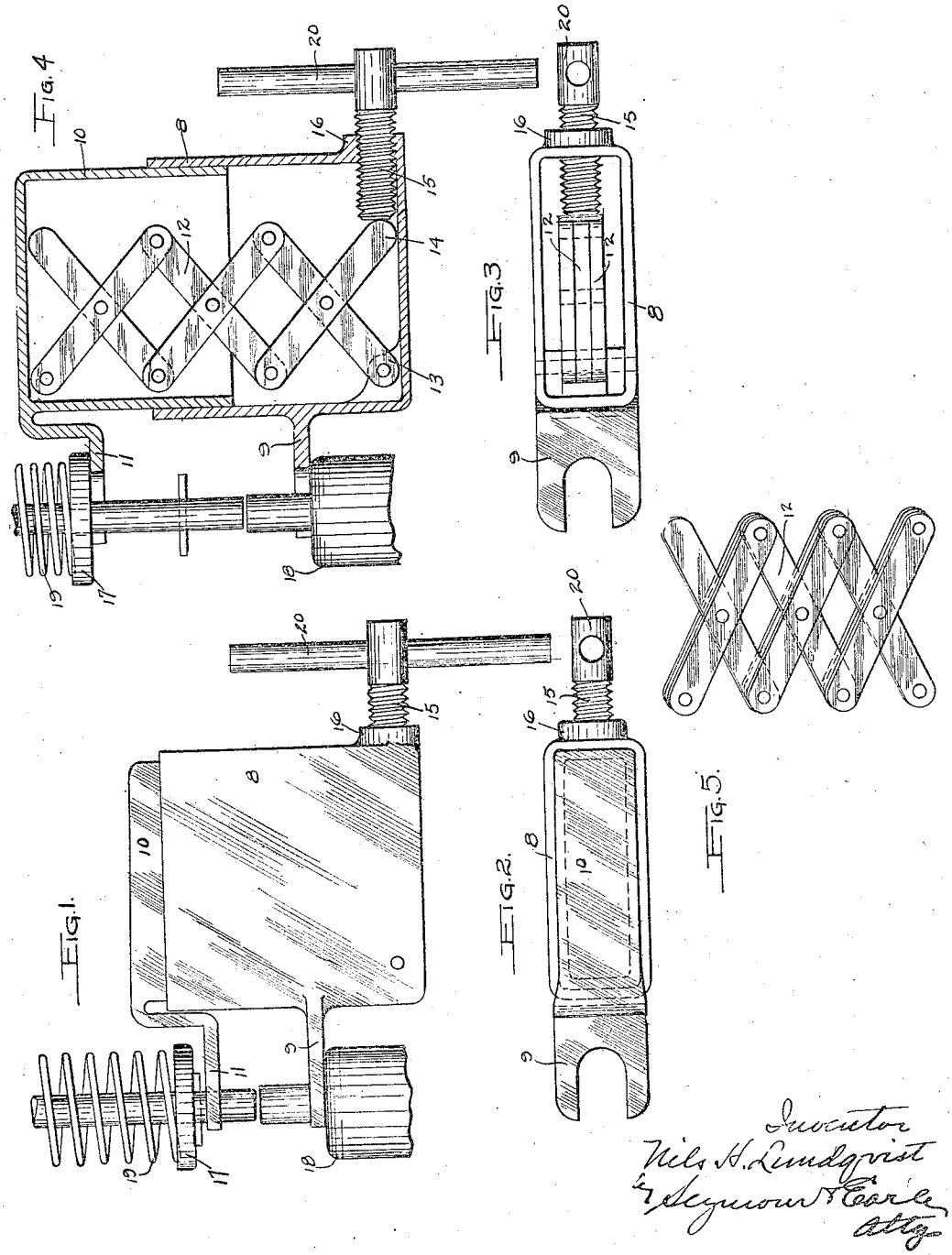
N. H. LUNDQVIST.

VALVE SPRING LIFTER.

APPLICATION FILED APR. 19, 1920.

1,353,255. Patented Sept. 21, 1920.



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UNITED STATES PATENT OFFICE.

NILS H. LUNDQVIST, OF NEW HAVEN, CONNECTICUT, ASSIGNOR OF ONE-HALF TO CARL PARK, OF NEW HAVEN, CONNECTICUT.

VALVE-SPRING LIFTER.

1,353,255. Specification of Letters Patent. Patented Sept. 21, 1920.

Application filed April 19, 1920. Serial No. 374,853.

To all whom it may concern:

Be it known that I, NILS H. LUNDQVIST, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Valve-Spring Lifters; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1, a side view of a valve-spring lifter constructed in accordance with my invention and shown in a contracted position.

Fig. 2, a top or plan view of the same.

Fig. 3, a top or plan view with the cap member removed.

Fig. 4, a vertical sectional view showing the parts in their extended position.

Fig. 5, a perspective view of the tongs detached.

This invention relates to an improvement in valve-spring lifters such as are commonly employed for lifting the valve-spring of explosive engines to remove the valve-pin, the object being a simple arrangement of parts whereby the device will remain in position and through which sufficient force may be easily applied to readily compress the spring for an adjustment of the valve; and the invention consists in the construction as hereinafter described and particularly recited in the claims.

In carrying out my invention, I employ a cup-like member 8 either round or rectangular, formed on one side with an outwardly projecting fork 9. Co-acting with this cup is a cap member 10 corresponding in shape to the cup member so as to telescopically slide therein or thereon. This cap member is also formed with an outwardly projecting fork 11. Within the cup and bearing upon the cap is a series of levers 12 arranged in lazy-tongs fashion, one end 13 being preferably fixed in the cup and the opposite ends bearing upon the outer end of the cap.

In line with the other inner end 14 is a screw 15 entering through one side of the cup, which may be formed with a strengthening boss 16 and so that by turning the screw inward the tongs will be elongated forcing the cap away from the cup and separating the forks 9 and 11, one of which engages the spring-seat collar 17, and the other engaging the guide 18 so as to have a bearing thereon and so that as the forks are separated, the valve-spring 19 will be compressed. The screw 15 may be provided with a pin-handle 20 or a wrench may be applied thereto.

When the screw is turned outward, the parts are moved together so as to bring the forks toward each other. If desired, one of the upper ends of the tongs may be connected with the cap although this is not essential.

I claim:

1. A valve-spring lifter comprising two telescopic members, each formed with a fork, lazy-tongs arranged between the two members, and means for elongating the tongs.

2. A valve-spring lifter comprising a cup member, a telescopic cap member, each formed with an outwardly projecting fork, a lazy-tongs arranged between the two members, and a screw bearing against one end of the tongs and adapted when turned inward to elongate the tongs and separate the members.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

NILS H. LUNDQVIST.

Witnesses:

ROBERT L. BEESLEY,

EMANUEL CAPPIELLO.