No. 801,341. PATENTED OCT. 10, 1905.

C. H. SCHRADER.

CRANK HANDLE.

APPLICATION FILED NOV. 9, 1904.

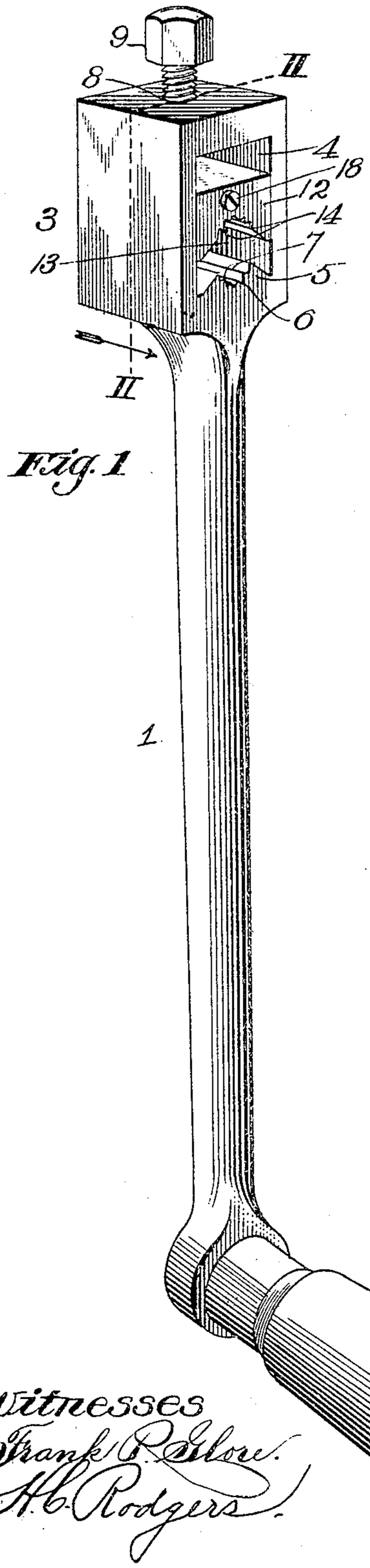

Fig. 1

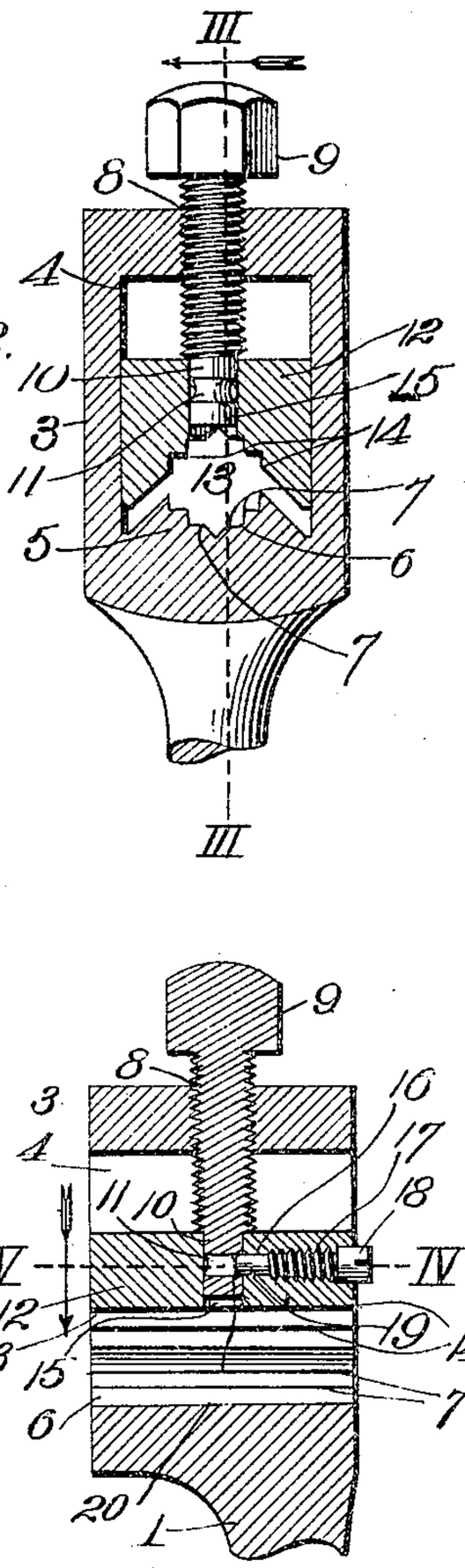

Fig. 2.

Fig. 3.

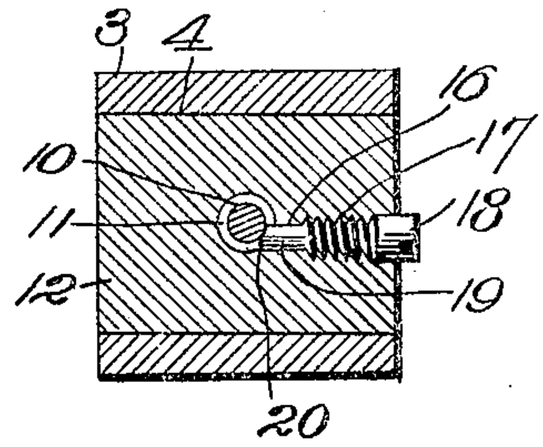

Fig. 4.

Witnesses
Frank P. Glover.
H. C. Rodgers.

Inventor
Chas. H. Schrader
By Geo. H. Thorpe
Attorney

UNITED STATES PATENT OFFICE.

CHARLES H. SCHRADER, OF LINCOLN, NEBRASKA.

CRANK-HANDLE.

No. 801,341. Specification of Letters Patent. Patented Oct. 10, 1905.

Application filed November 9, 1904. Serial No. 232,049.

To all whom it may concern:

Be it known that I, CHARLES H. SCHRADER, a citizen of the United States, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in Crank-Handles, of which the following is a specification.

This invention relates to crank-handles, and is designed particularly as a crank-handle for use on shafts or other parts to be turned irrespective of their form or their size within certain limits.

A further object is to produce a crank-handle of this character which operates efficiently and reliably and is of simple, strong, durable, and cheap construction.

To these ends the invention consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective view of a crank-handle embodying my invention. Fig. 2 is a section taken on line II II of Fig. 1. Fig. 3 is a section on the line III III of Fig. 2. Fig. 4 is a section on the line IV IV of Fig. 3.

In the said drawings, 1 designates the crank, and 2 the handle thereof at one end and 3 an enlargement at the opposite end. Said enlargement is provided with a slot 4, and at the lower end said slot is formed with an upwardly projecting and tapering portion 5, having a central groove 6 paralleling handle 2 and corrugated to produce a series of teeth 7. The enlargement at its upper end is provided centrally with a threaded passage 8, engaged by a bolt 9, having its lower end non-threaded and reduced, as at 10, and provided with an annular groove 11.

A sliding jaw 12 has its lower side formed with a substantially V-shaped groove 13, having its walls tapering upwardly and inwardly and substantially paralleling the upwardly projecting and tapering portion 5, which forms the lower or stationary jaw.

The groove of the sliding jaw, like that of the stationary jaw, is corrugated to produce a series of teeth 14, the two jaws being of such construction that a round, square, or other form of shaft may be reliably gripped and turned by the manipulation of the crank.

The sliding jaw is provided centrally with a vertical cylindrical passage 15, fitting snugly on the non-threaded part of the bolt, so that when the bolt is screwed down it will force the sliding jaw toward the stationary jaw, and in order to effect the withdrawal or rise of the sliding jaw with the unscrewing of the bolt said jaw is provided with a passage registering with the groove 11 of the bolt at its inner end, said passage by preference comprising a non-threaded inner portion 16 and a threaded outer portion 17, a bolt 18 engaging said passage and having a non-threaded extension 19 engaging portion 16 of the passage and the groove 11 of bolt 9, the bolt 18 being set to one side of the center of bolt 9 by preference, so that the inner end of the former may be slightly beveled, as at 20, and thereby give a more extended bearing on the grooved portion of bolt 9, it being understood, of course, that bolt 18 is not screwed home a sufficient distance to bind tightly on bolt 9, as that would prevent the latter from being turned, and consequently movement of the sliding jaw. Bolt 18 is simply for the purpose of establishing a connection between bolt 9 and the sliding jaw which will permit the former to turn freely and at the same time move jaw 12 toward or from the stationary jaw.

In practice the jaws are disposed a sufficient distance apart to permit them to be slipped upon the shaft to be turned. Bolt 9 is then screwed home until the jaws are clamped tightly upon the shaft and a rigid relation between the crank and shaft thus established, the shaft being then turned by grasping handle 2 and manipulating it in the customary manner.

To remove the crank, it is only necessary to unscrew bolt 9 slightly and then slip the crank from the end of the shaft.

From the above description it will be apparent that I have produced a crank-handle possessing the features of advantage enumerated as desirable in the statement of the object of the invention and that changes may be made in minor particulars without departing from its essential spirit and scope or sacrificing any of its advantages.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

A crank-handle having a head at one end which has a longitudinal slot, and is formed at one end of said longitudinal slot with an integral stationary jaw 5 having a corrugated groove 6; in combination with a jaw 12 fitting slidingly in said slot and having a transverse corrugated groove in the face contiguous to the grooved face of the stationary jaw, and

provided with a cylindrical passage 15, extending longitudinally of the slot; a bolt disposed longitudinally and mounted in the end of the enlargement at the opposite side of the slidable jaw from the stationary jaw, and having a non-threaded annularly-grooved portion journaled in said slidable jaw; and a set-screw mounted in the slidable jaw and having its end projecting into the cylindrical passage thereof and into the annular groove of said bolt.

In testimony whereof I affix my signature in the presence of two witnesses.

CHARLES H. SCHRADER.

Witnesses:

F. W. HUDSON,

J. F. SCHRADER.