No. 691,059. Patented Jan. 14, 1902.

P. D. JONES.

PITMAN.

(Application filed Apr. 25, 1901.)

(No Model.)

Fig. 1.

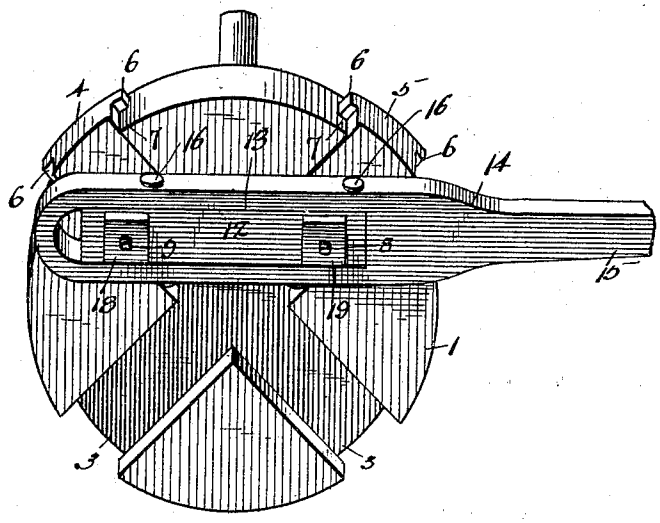


Fig. 2.

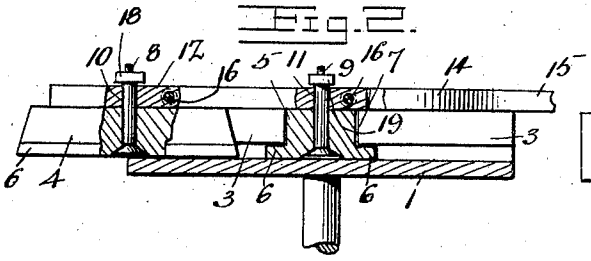


Fig. 3.

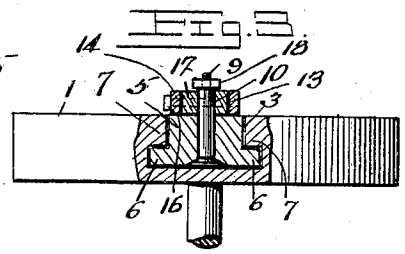


Fig. 4.

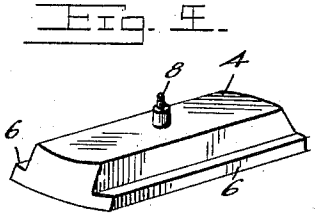
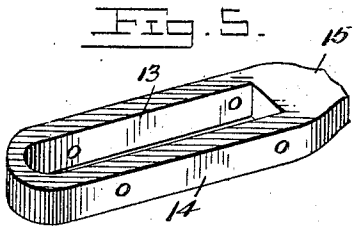


Fig. 5.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

PARKS D. JONES, OF LOVELAND, IOWA.

PITMAN.

SPECIFICATION forming part of Letters Patent No. 691,059, dated January 14, 1902.

Application filed April 25, 1901. Serial No. 57,451. (No model.)

To all whom it may concern:

Be it known that I, PARKS D. JONES, a citizen of the United States, residing at Loveland, in the county of Pottawattamie and State of Iowa, have invented a new and useful Pitman, of which the following is a specification.

The invention relates to a pitman.

The object of the present invention is to improve the construction of pitmen and to provide a simple, inexpensive, and efficient construction for converting rotary motion into reciprocating motion, and vice versa, adapted to produce a rapid reciprocation of the pitman, and capable of affording ready access to the parts for cleaning and for other purposes.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a device constructed in accordance with this invention. Fig. 2 is a sectional view taken longitudinally of the pitman. Fig. 3 is a similar view taken transversely of the pitman. Fig. 4 is a detail view of one of the slides. Fig. 5 is a detail view of the pitman-head.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a disk designed to be mounted on a shaft 2 and provided with diametrical ways 3, crossing each other and consisting of grooves provided with overhanging portions or flanges adapted to engage corresponding flanges of blocks or slides 4 and 5. The slides 4 and 5 are provided at opposite sides with longitudinal flanges 6, which extend under the flanges 7 of the disk, whereby the slides are securely interlocked with the disk. The slides are provided with wrist-pins 8 and 9, arranged in inner and outer bearing-openings 10 and 11 of a connecting head or block 12, which is arranged in a longitudinal opening 13 of a pitman-head 14, whereby the pitman 15 is connected with the slides. The slides reciprocate in the diametrical ways of the disk, and the pitman makes four strokes or reciprocations at each complete revolution of the disk, and a high rate of speed may be thus obtained without the use of intermediate gear-wheels.

The connecting-head 12, which is arranged in the opening of the pitman-head, is secured to the latter by transverse fastening devices 16, and it is retained on threaded portions of the wrist-pins by nuts 18 and 19, which are of a size to pass through the longitudinal opening of the pitman-head, whereby the latter may be readily disconnected from the head 12 without necessitating the removal of the head from the slides. The transverse fastening devices 16, which may consist of pins or keys, pass through registering perforations of the sides of the pitman-head and the connecting-head 12, and they are adapted to be readily removed. After the transverse fastening devices have been taken out the pitman may be readily lifted off the connecting-head 12. By this construction the pitman may be repaired and access may be had to the slides and the ways without disconnecting the head or block 12 from the slides. The pitman may be readily placed on the connecting head or block 12, and it is quickly secured to the same by replacing the transverse fastening devices. The wrist-pins, which may be of any desired construction, preferably consist of bolts having heads countersunk in the inner faces of the slides, as clearly illustrated in Figs. 2 and 3 of the accompanying drawings.

It will be seen that the device is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that it is capable of effecting a rapid reciprocation of the pitman. It will also be apparent that the device may be employed for a variety of purposes and that the pitman may be readily disconnected from the disk without removing the connecting-head from the slides.

What I claim is—

1. A device of the class described comprising a disk having diametrical ways, slides arranged in the ways and provided with wrist-pins, a head receiving the wrist-pins and connecting the slides, and adapted to prevent the latter from leaving the disk, a pitman having an opening receiving the said head, fastening devices arranged on the exterior of the head for securing the same to the wrist-

pins, said fastening devices being of a size to pass through the opening of the pitman, and means for detachably securing the pitman to the head, whereby the pitman may be removed without separating the slides from the disk, substantially as described.

2. A device of the class described comprising a disk having diametrical ways, slides arranged in the ways and provided with wrist-pins having threaded portions, a connecting-head having perforations receiving the wrist-pins, said head being adapted to prevent the slides from leaving the disk, a pitman having an opening receiving the head, nuts arranged on the threaded portions of the wrist-pins and engaging the head and being of a size to pass through the opening of the pitman, and the transverse fastening devices detachably securing the pitman to the head and adapted to permit the pitman to be removed without detaching the slides from the disk, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PARKS D. JONES.

Witnesses:
M. C. BROSIUS,
H. F. FOSS.