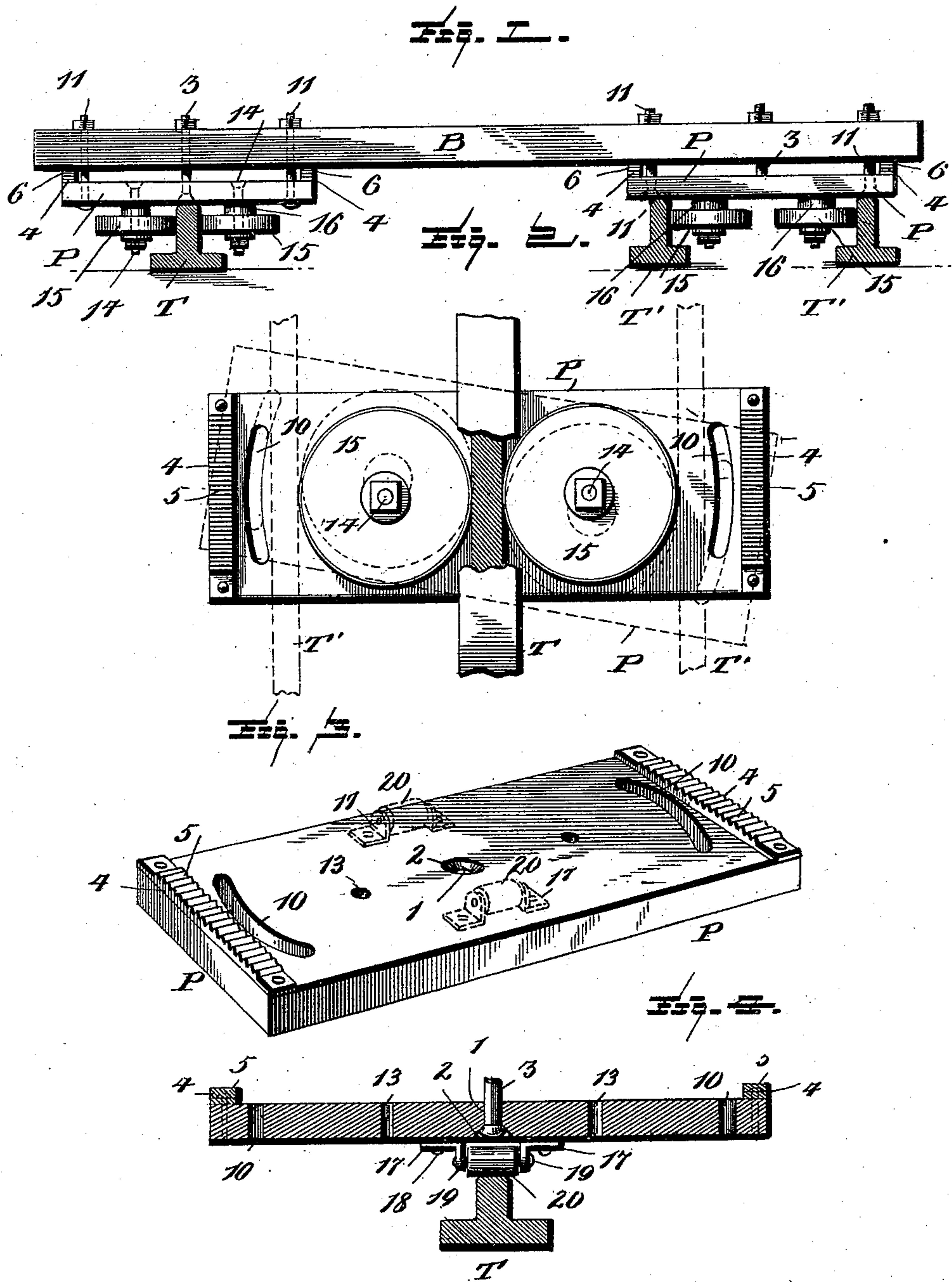


(No Model.)

J. K. ROWAN.
CARRIAGE GUIDE.

No. 486,299.

Patented Nov. 15, 1892.



UNITED STATES PATENT OFFICE.

JOHN K. ROWAN, OF NORTH WASHINGTON, PENNSYLVANIA.

CARRIAGE-GUIDE.

SPECIFICATION forming part of Letters Patent No. 486,299, dated November 15, 1892.

Application filed May 3, 1892. Serial No. 431,706. (No model.)

To all whom it may concern:

Be it known that I, JOHN K. ROWAN, a citizen of the United States, residing at North Washington, in the county of Westmoreland and State of Pennsylvania, have invented certain new and useful Improvements in Carriage-Guides; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to woodworking machines, and more especially to the reciprocating carriages used therein; and the object of the same is to provide a guide for a carriage of this or similar nature which will adapt it for use on an ordinary T-rail and without flanges on the wheels, and which will also permit the adjustment of such guide when the rail or the guide becomes worn.

To this end the invention consists in a plate centrally pivoted beneath the base of the carriage and having wheels which travel against the outer opposite faces of a single rail or the inner faces of two rails, together with the specified means for permitting the adjustment of this plate around its pivot and for clamping it in adjusted position, all as hereinafter more fully set forth, and as illustrated on the drawings, wherein—

Figure 1 is an end elevation showing two forms of my improved guide as applied to a carriage whose base only is illustrated. Fig. 2 is a bottom plan view of one plate and its wheels showing the latter on opposite sides of a single-rail track in full lines and between the rails of a two-rail track in dotted lines. Fig. 3 is a perspective view of the plate inverted, showing at its ends the clamps, which may connect with others attached to the lower side of the base. Fig. 4 is a central longitudinal section of the plate, illustrating a slight modification.

Referring to the said drawings, the letter B designates the base of any reciprocating member, such as the carriage of a wood-sawing machine.

T is a track only composed of a single rail, and T' a track composed of two parallel rails, all of which rails are preferably of T-iron, as best shown in Fig. 1. Heretofore such car-

riages were moved by suitable means upon said tracks, and the carriages had wheels mounted on horizontal axes and traveling on the tracks, one of the latter being plain and the other of inverted-V shape, or both rails and one of the wheels were plain while the other wheel was flanged. In the present instance I avoid the use of a wheel or track having any flange or any construction except with its faces at right angles to each other, and I thereby avoid the objections heretofore urged against devices of this character, that chips or sawdust may derail the carriage or the latter may in time become unsteady and liable to lateral movement by reason of wear of the parts.

Coming now to the present invention, P is a plate having through its center a hole 1, preferably countersunk, as at 2, at its lower end, and 3 is a bolt passing upwardly through this hole and through the base B, whereon the plate is pivotally supported. Beneath the ends of the plate are preferably (although not necessarily) secured clamps 4, having roughened or serrated faces 5, and which engage with the lower faces of the base when the nut of the bolt is tightened or which may engage with similar clamps 6, secured to and carried by the base, as will be clear. These clamps are not at all times necessary, and they may or may not be used in connection with the device to be next described. Near the ends of the plate P slots 10 are cut there-through, being struck on a circle around the pivot-hole 1, and bolts 11 pass upwardly through these slots and through the base B. When these bolts are loosened, it is obvious that the plate may be turned slightly around its pivot-bolt 3, and when the bolts 11 are retightened the plate P will be clamped in adjusted position. The clamps 4 and 6 are not always necessary when these clamping-bolts are used, as will be seen. At equal distances from the pivot-hole 1 are formed holes 13 in the plate through which pass pins or bolts 14, and upon the latter are journaled two wheels 15, washers 16 being preferably interposed between the wheels and the plate. A slight modification which may be employed is illustrated in Fig. 4 and also in dotted lines in Fig. 3, and consists of ears 17, secured by

screws 18 to the plate and connected by pins or bolts 19, on which are journaled small rollers 20, which travel on the face of the track. As such rollers would overcome the friction of the entire weight superimposed on the carriage I prefer to use them. The track consists either of a single rail T of a size and shape to fit between the adjacent edges of the wheels 15 or of two rails T', preferably spaced so as to travel outside said wheels.

With the above construction of parts it will be seen, as in Fig. 1, that when the carriage reciprocates the plate P moves over the track, consisting of a single rail T, while the edges of the wheels 15 travel against the opposite side faces of said rail to prevent any lateral motion of the carriage on the track. When the pins 14 or the holes in the wheels come to be worn or when the track itself becomes worn, the bolts 11 are loosened and the plate slides around its pivot 3. This will result in bringing the wheels closer to the sides of the rail and prevent lateral movement thereof. As seen in dotted lines in Fig. 2 and at the right of Fig. 1, the track may sometimes consist of two parallel rails T', so spaced that the wheels 15 will move between them and bear on their inner side faces. In this case it will be obviously necessary that the plate be cantled or shifted slightly at first and adjusted toward or into a straight transverseline to effect the tightening of parts.

The sizes, shapes, and materials of parts are matters of no moment, and considerable change may be made in the precise details without departing from the spirit of my invention. The uses and advantages of this device are thought to be obvious and will vary according to the nature of the mechanism supported by the base. For instance, in a wood-sawing machine, it is rarely desirable that the carriage have any lateral movement whatever, though when it is it may be permitted by this form of guide.

What is claimed as new is—

1. In a woodworking-machine, the combination, with the track and the carriage base, of a plate centrally pivoted beneath the base and supported by said track, two wheels journaled on pins in the plate and traveling against opposite side faces of the track, and means for permitting the turning of the plate

around its pivot and for fastening it in adjusted position, as and for the purpose set forth.

2. In a woodworking-machine, the combination, with the track and the carriage-base, of a plate centrally pivoted beneath the base and supported by said track, two wheels journaled on pins in the plate and traveling against opposite side faces of the track, the plate having a slot near one end struck on a curve around said pivot, and a bolt through said slot and base, as and for the purpose set forth.

3. The combination, with a track, a base, and a plate mounted on a central pivot-bolt beneath the base and supported by said track, the plate having near its ends slots struck on a circle around said pivot-bolt, of roughened clamps on the upper face of said plate, wheels journaled on pins in the plate and traveling against opposite side faces of the track, and bolts through said slots and the base, as and for the purpose set forth.

4. The combination, with a track, a base, and a plate mounted on a central pivot-bolt beneath the base and having rollers traveling upon said track, the plate having near its ends slots struck on a circle around said pivot-bolts, of roughened clamps on the upper face of said plate, wheels journaled on pins in the plate and traveling against opposite side faces of the track, and bolts through said slots and the base, as and for the purpose set forth.

5. The combination, with a track consisting of a single rail, a base, and a plate mounted on a central pivot-bolt beneath the base and supported by said rail, the plate having near its end slots struck on a circle around said pivot-bolt, of roughened clamps on the upper face of said plate, wheels journaled on pins in the plate and traveling against opposite side faces of the rail, and bolts through said slots and the base, as and for the purpose set forth.

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

JOHN K. ROWAN.

Witnesses:

MARGERY B. MCALISTER,
ALEXR. MCALISTER.