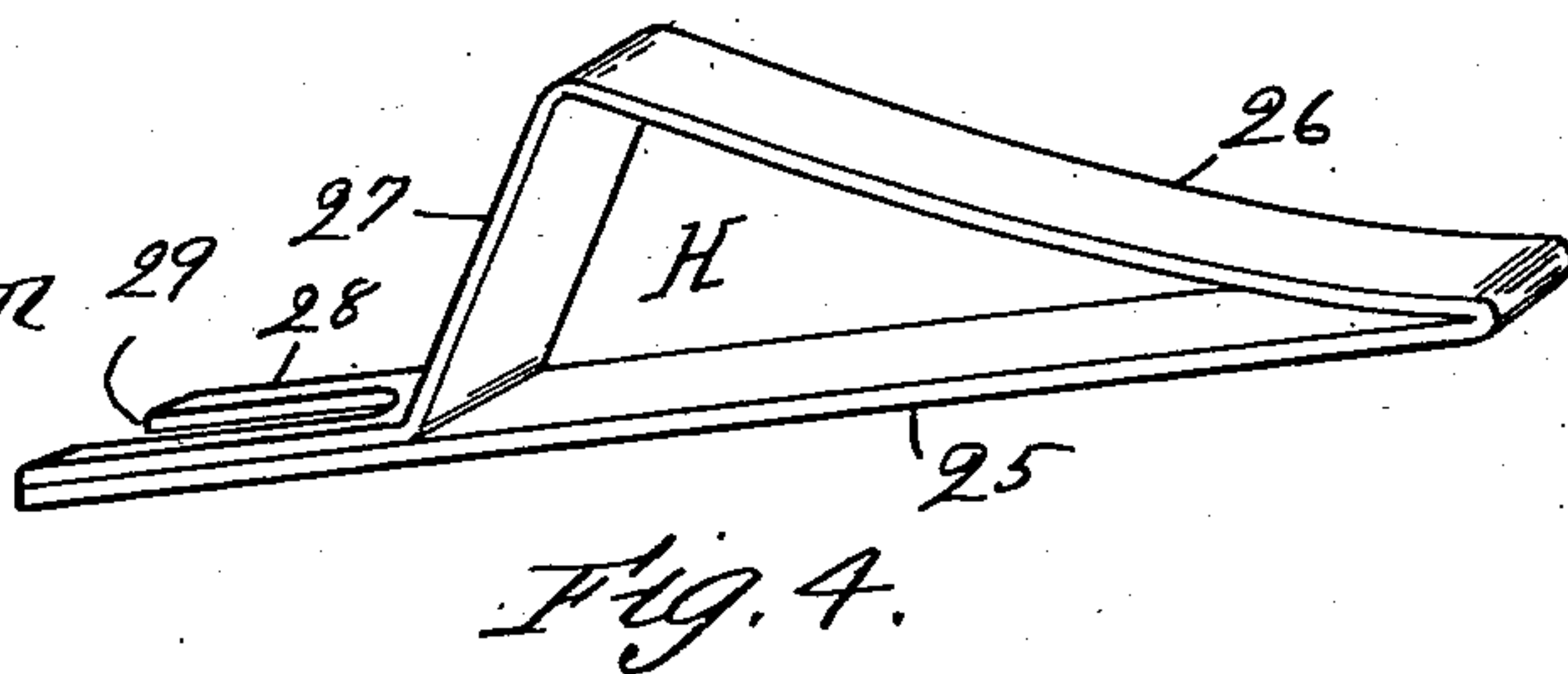
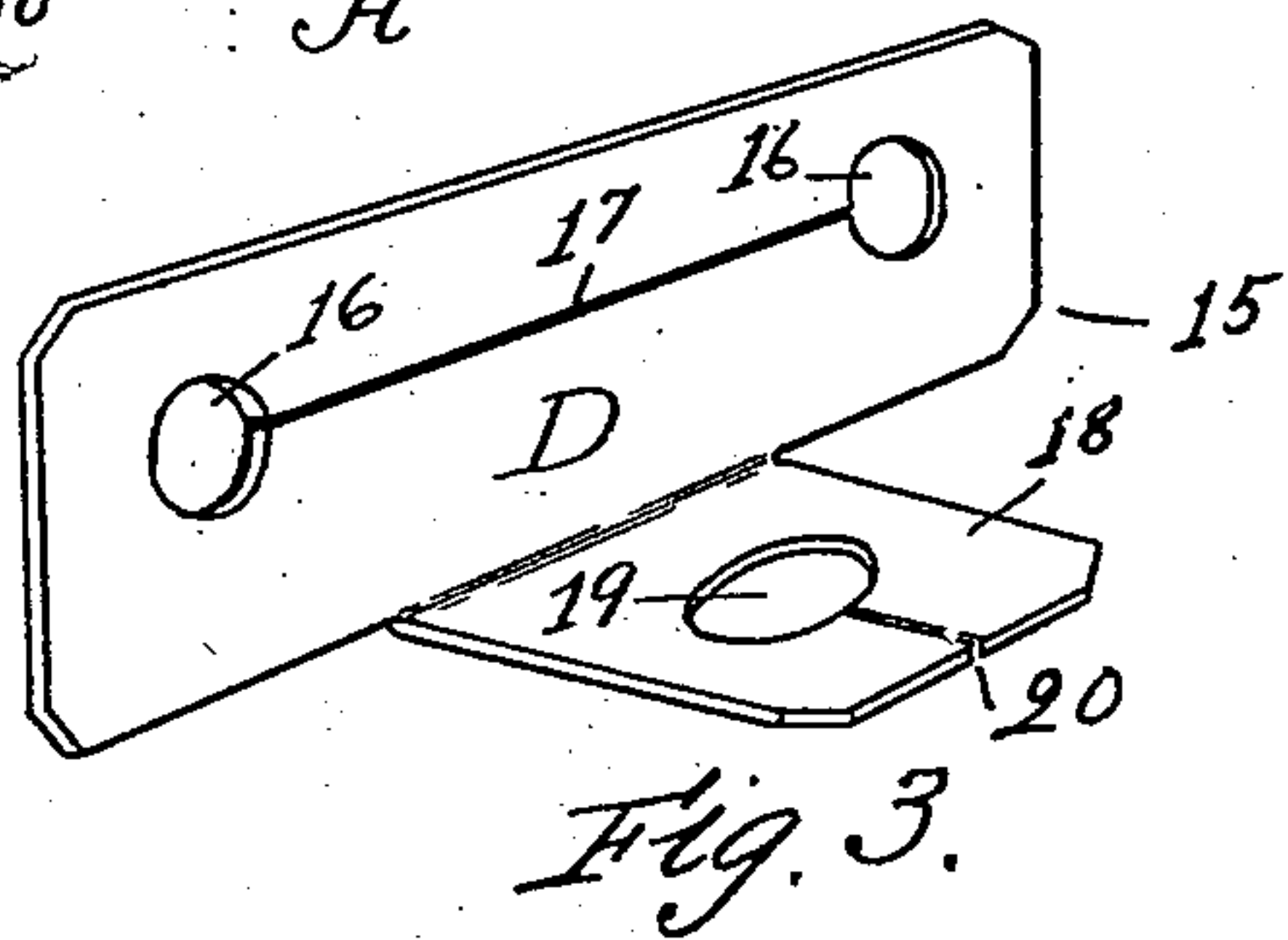
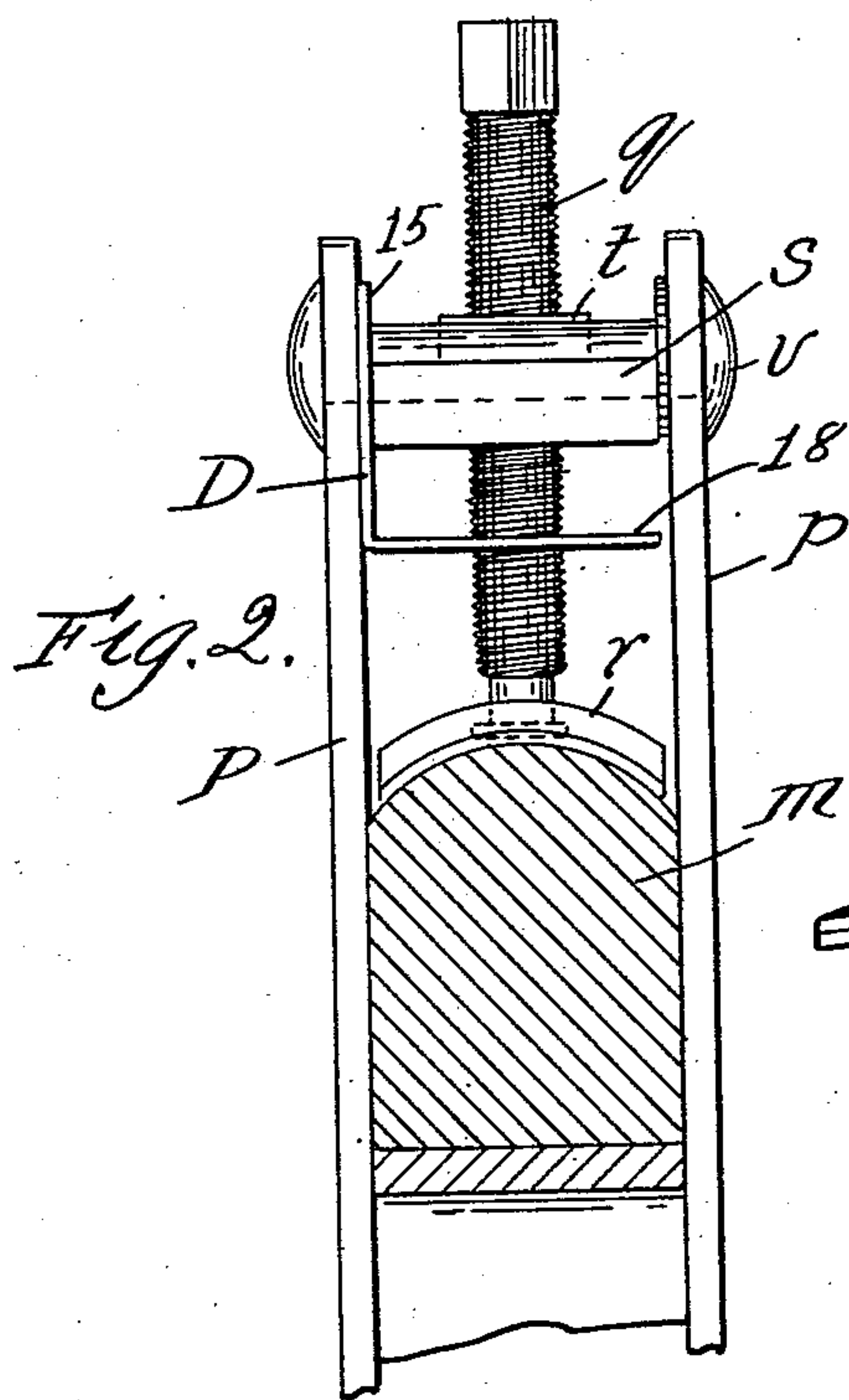
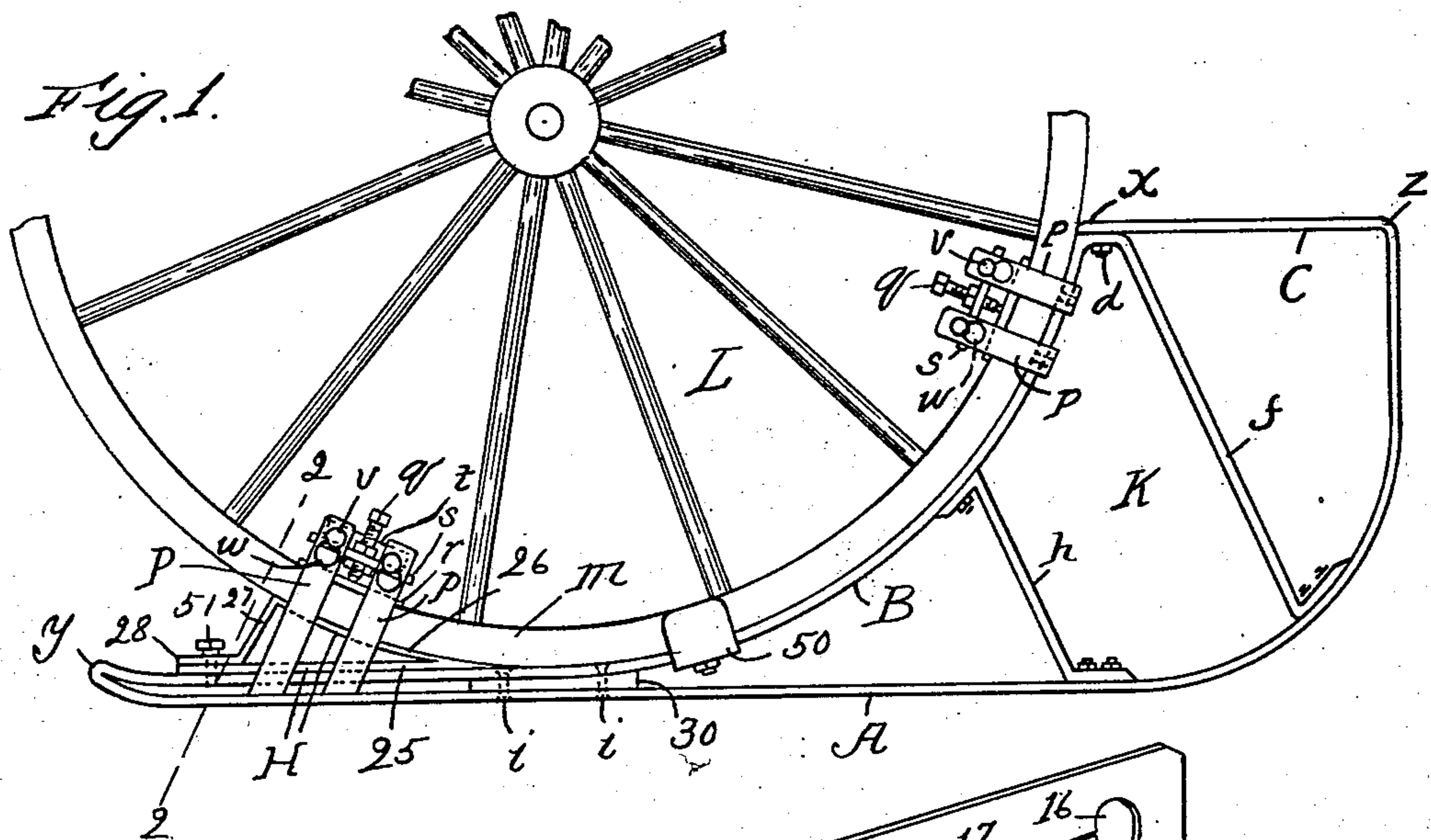


No. 750,957.

PATENTED FEB. 2, 1904.

J. FAUCHER.
 RUNNER FOR VEHICLES.
 APPLICATION FILED AUG. 21, 1903.

NO MODEL.



Witnesses:
 H. B. Davis.
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 atty.

UNITED STATES PATENT OFFICE.

JULES FAUCHER, OF LAWRENCE, MASSACHUSETTS.

RUNNER FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 750,957, dated February 2, 1904.

Application filed August 21, 1903. Serial No. 170,343. (No model.)

To all whom it may concern:

Be it known that I, JULES FAUCHER, of Lawrence, in the county of Essex, State of Massachusetts, have made certain new and useful Improvements in Runners for Vehicles, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of a vehicle-wheel, showing my improved runner attached; Fig. 2, a vertical transverse section on line 2-2 in Fig. 1, showing the clamp; Fig. 3, a perspective view of the nut-lock, and Fig. 4 a perspective view of the trig or wedge.

Like letters and figures of reference indicate corresponding parts in the different figures of the drawings.

My invention relates especially to an improvement in detachable runners and means for mounting them on the wheels of vehicles for use in sledding, it being designed especially as an improvement on the device shown and described in my United States Letters Patent No. 341,467, dated May 11, 1886, the object being particularly to cheapen such device, acquiring equal efficiency with a less number of parts, and while lightening materially the structure of the runner to maintain requisite strength.

The nature and operation of the device will be readily understood by those conversant with such matters from the following explanation.

In the drawings, K represents the runner considered as a whole. This I construct of a single strip or band of metal of suitable breadth and strength. Beginning at *x*, Fig. 1, the band is carried horizontally, forming the head *c*. Then it is bent vertically downward at *z* and curved to form the toe of the runner, thence again horizontally, forming the base A or what is usually known as the "shoe" when a metal-bound wooden runner is used. At the heel *y* it is curved slightly upward, thence carried back horizontally over

the shoe a determined distance, where a wedge or block 30 is inserted between the two arms of the band, which are bolted together and held by bolts *i i*, passing through said block. Thence the band is curved vertically upward, forming a seat B for the felly *m* of the wheel L, said seat terminating at the point *w*, to which it is secured by a bolt *d*. Thence the band is carried diagonally and radially of the toe of the runner to which it is bolted, forming a brace *f*. A complete runner, it will thus be seen, is formed from the single band of metal. A supplemental brace *h* for additional strength is bolted to seat B and shoe A.

Between the two arms forming the heel of the runner U-shaped guards *p p* are held, their arms extending diagonally upward and adapted to admit the felly of the wheel between them. Each of the guard-arms has an enlarged bolt-opening *w* of sufficient size to admit the head of bolt *v*, designed to connect corresponding arms. These bolt-openings terminate in smaller openings fitted to receive the shanks of the bolts and not permit the heads to pass. A similar set of U-guards is disposed near the head of the runner.

A jam-screw *q* carries a nut *s*, elongated to slide vertically between the guard-arms and pass under the shanks of the bolts *v*. On the lower end of the screw rabbeted for the purpose a block *r* is swiveled and shaped to engage the inner face of the wheel-felly. A check-nut *t* is on the screw above the nut *s*. These guards, screws, and nuts form clamps for securing the wheel to the runner-seat and are substantially the same construction shown in the patent referred to above. In this case the runner being so light and rigid two sets only are employed, one at the heel and one at the head, as shown; but as an additional precaution against lateral slip I midway and near the wedge 30 secure an angle-iron guard 50.

The wedge or trig H, which is a salient part of my present invention, also consists of a single band of metal having a horizontal base 25 and then bent back on itself, forming a seat 26 in the same arc as the seat proper, B, of the runner. Thence the band is bent down into a truss 27 and thence horizontally at 28

to rest on its base. The end 28 is slotted at 29 to play on the shank of a bolt 51, which passes through the base of the wedge and the upper arm of the runner-heel.

5 In the use of my improvement, the wedge being displaced, the carriage-wheel L is run onto the seat of the runner between the guards *p*. The nut *s* is then adjusted between the guard-arms over the felly, the block *r* engag-
 10 ing said felly, as shown. The bolts *v* are passed through the enlarged bolt-openings *w* and over ends of nut *s* and when the jam-screw *q* is turned are driven by said nut into the upper ends of said openings, with the re-
 15 sult of driving the block *r* against the wheel-felly and rigidly securing the runner to said wheel in a manner obvious without a more explicit description. The check-nut *t* is turned
 20 into engagement with nut *s* with the usual effect. As an additional precaution I employ a lock-plate D. (Shown in Fig. 3.) This comprises a body 15, having two openings 16,
 25 connected by a slot 17 to allow spring for the heads of bolts *v* to pass into said openings. An arm 18 projects horizontally from the
 30 lower edge of this plate and has its end slit at 20 into a bolt-hole 19, in which the jam-screw *q* is fitted to work. This lock-plate prevents separation of bolts *v* and the parts working
 loose by jar. After the wheel is adjusted on the runner-seat the wedge H is inserted between the rear guards *p* and secured to the runner-heel by bolt 51, forming a trig for the wheel and a part of the seat, relieving also

the strain on the clamps when backing the 35 vehicle.

In my former device it was necessary to lift the vehicle in order to adjust it on the runners. By use of the wedge H the vehicle even when loaded can be run onto or off the 40 runners.

Having thus explained my invention, what I claim is—

1. The detachable runner, K, for wheeled vehicles comprising a single band of flat metal 45 bent to form the shoe, A, the heel, *y*, the upwardly-curved seat, B, head, *x*, and brace, *f*, all these parts being integral and said brace being directed diagonally of and secured to the toe of said runner. 50

2. The runner, K, constructed of a single band of metal bent to form the integral shoe, toe, heel, seat and brace substantially as specified in combination with the wedge, H, constructed of a single band of metal bent to form 55 seat 26 and truss, 27, substantially as shown.

3. In a device of the character described the wedge, H, having the horizontal base, 25, curved seat 26, truss, 27, and slotted horizontal portion, 28, all said parts being arranged 60 substantially as specified.

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

JULES FAUCHER.

Witnesses:

NAPOLÉON DRONIN,
 WM. J. CARROLL.