S. TOWNSEND & J VICKERS.

Gate-Hinges.

No. 198,167. Patented Dec. 11, 1877.

Fig. 1.

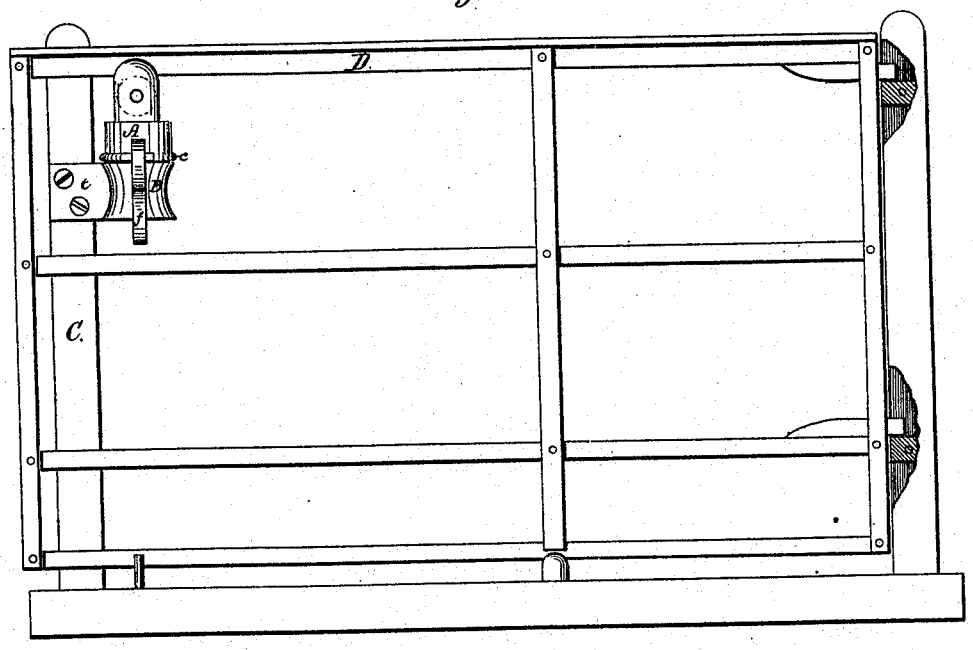


Fig. 2.

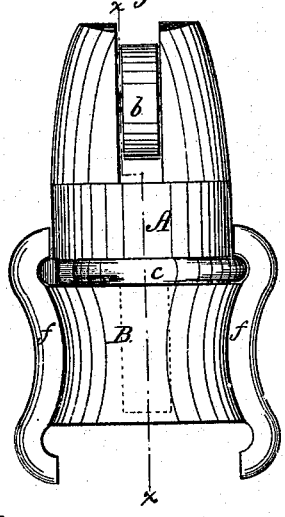
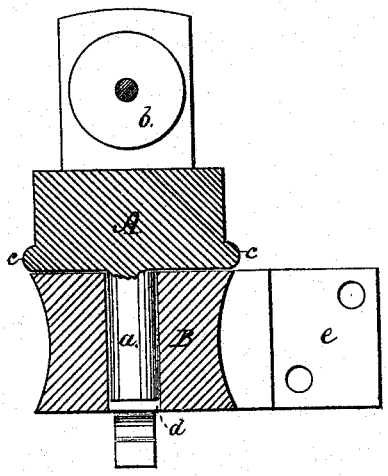


Fig. 3.



WITNESSES:

W. W. Hollingsworth

Amos W. Hart

INVENTOR:

S. Townsend

J. Vickers

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

STEPHEN TOWNSEND AND JOHN VICKERS, OF GUYSVILLE, OHIO.

IMPROVEMENT IN GATE-HINGES.

Specification forming part of Letters Patent No. **198,167**, dated December 11, 1877; application filed August 27, 1877.

To all whom it may concern:

Be it known that we, STEPHEN TOWNSEND and JOHN VICKERS, of Guysville, in the county of Athens and State of Ohio, have invented a new and Improved Gate-Hinge; and we do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates to an improvement in hinges for that class of farm-gates which are adapted to open by first sliding back half their length, and then swinging around into a position parallel with the roadway.

The invention consists in constructing the pivot portion of the hinge with a circumferential base-flange, and the socket or fixed portion of the hinge with claws or arms, which embrace said flange, and thereby hold the pivot portion to its seat, and also relieve the pintle of part of the strain incident to the operation of the gate.

The hinge is shown in accompanying drawing, in which—

Figure 1 is a side elevation of a gate supported upon our improved hinge. Fig. 2 is a side elevation, and Fig. 3 is a vertical section, of the hinge.

The pivot portion A of the hinge consists of a cylindrical or conical block, having a pintle, *a*, and provided with a friction-wheel, *b*, pivoted in a guide-slot formed in its upper side, and with a circumferential rib or flange, *c*, which is interrupted or cut away at two opposite points.

The socket B is a cylindrical block, having a central hole, *d*, to receive the pintle *a*, also an arm, *e*, by which it is attached to the pivot-post C, and two vertical arms or claws, *f*, which engage with the rib *c* of the pivot-block.

To connect the pivot-block A and socket B, the pintle *a* is inserted in hole *d*, and the part A adjusted to bring the side notches or slots in its circumferential rib *c* into coincidence with the claws *f*. The projecting ends of the latter will then pass through said notches, and allow the pivot-block to be seated on the socket, when the two parts A B may be locked together by adjusting them so that the sections of rib *c* pass beneath the claws, thereby bringing the latter out of coincidence with the rib-notches.

It is obvious that to detach the pivot-block this operation is reversed.

The claws and rib-notches are so located relative to the arm *e* of the socket that the pivot-block cannot be turned into such position as will enable it to be detached from the socket so long as the gate is supported on the hinge.

The socket is provided with claws at each end, so that it may be used with either end uppermost.

The claws assist in holding the pivot-block to its seat, and relieve the pintle of part of the strain incident to performance of its function.

This form of hinge is very strong, durable, and efficient; and the pivot-block, pulley, and socket being made of cast-iron, the hinge is also comparatively inexpensive.

The top rail of the gate D rests on the friction-wheel *b*, and to open the same it is slid back half-way, and being then balanced on the pivot A, it may be easily turned or swung thereon to completely open the passage-way.

We do not claim, broadly, a gate or other hinge one part of which has a notched flange, and the other a projection for preventing detachment of the parts, except when placed in a certain position, since we are well aware such hinges have been devised; but they differ materially from ours.

What we claim is—

The socket having the upwardly-projecting claws and central hole for the pintle, the pivot-block, carrying the pulley and having the pintle, and interrupted base rib or flange, combined as shown and described, to form a gate-hinge, adapted to operate as specified.

STEPHEN TOWNSEND.
JOHN VICKERS.

Witnesses:
P. B. WICKHAM,
EDWARD E. STARKEY.