

P. BUTTERFUSS.
Rack for Farm Wagons.

No. 231,003.

Patented Aug. 10, 1880.

Fig. 1

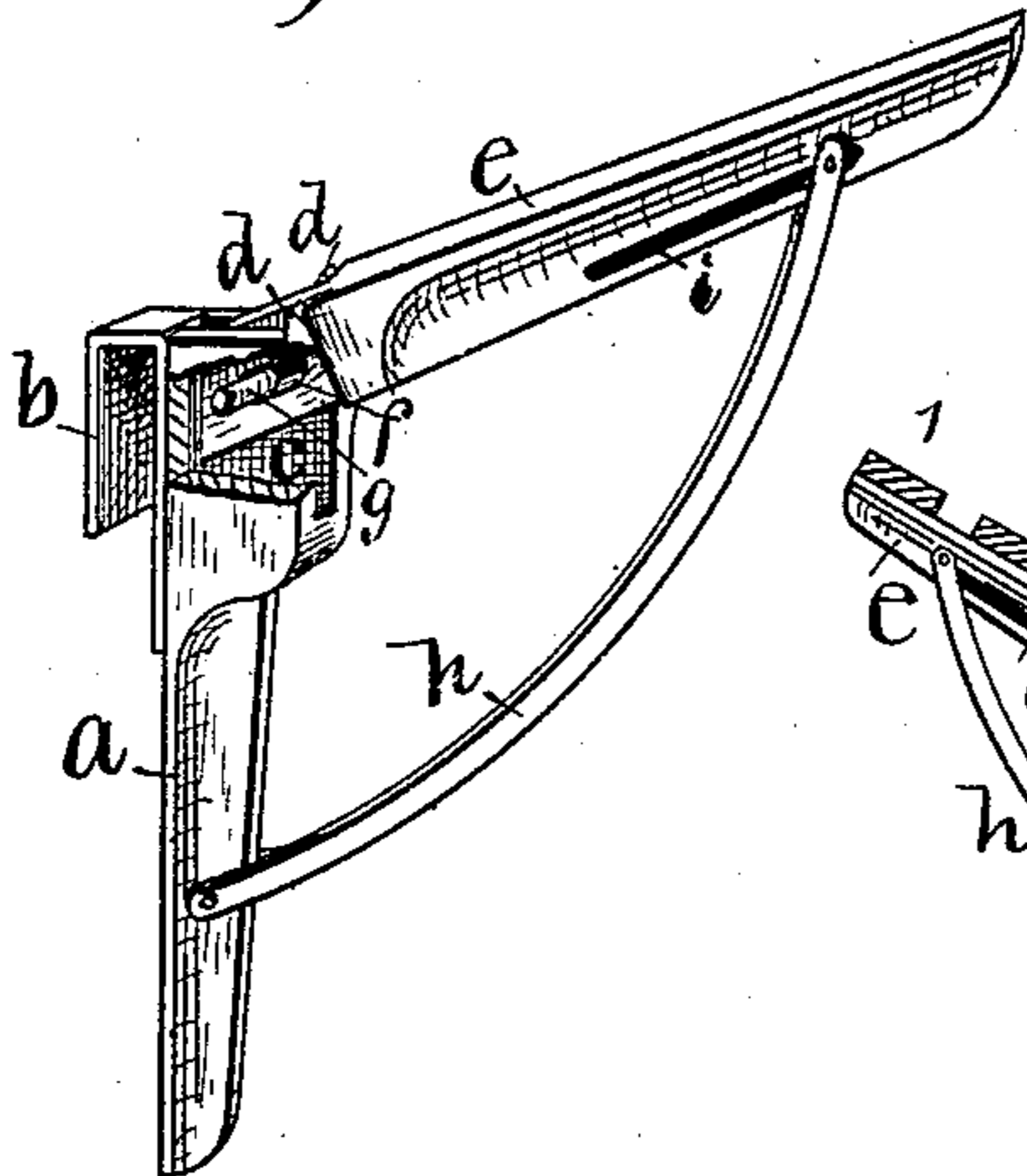


Fig. 2

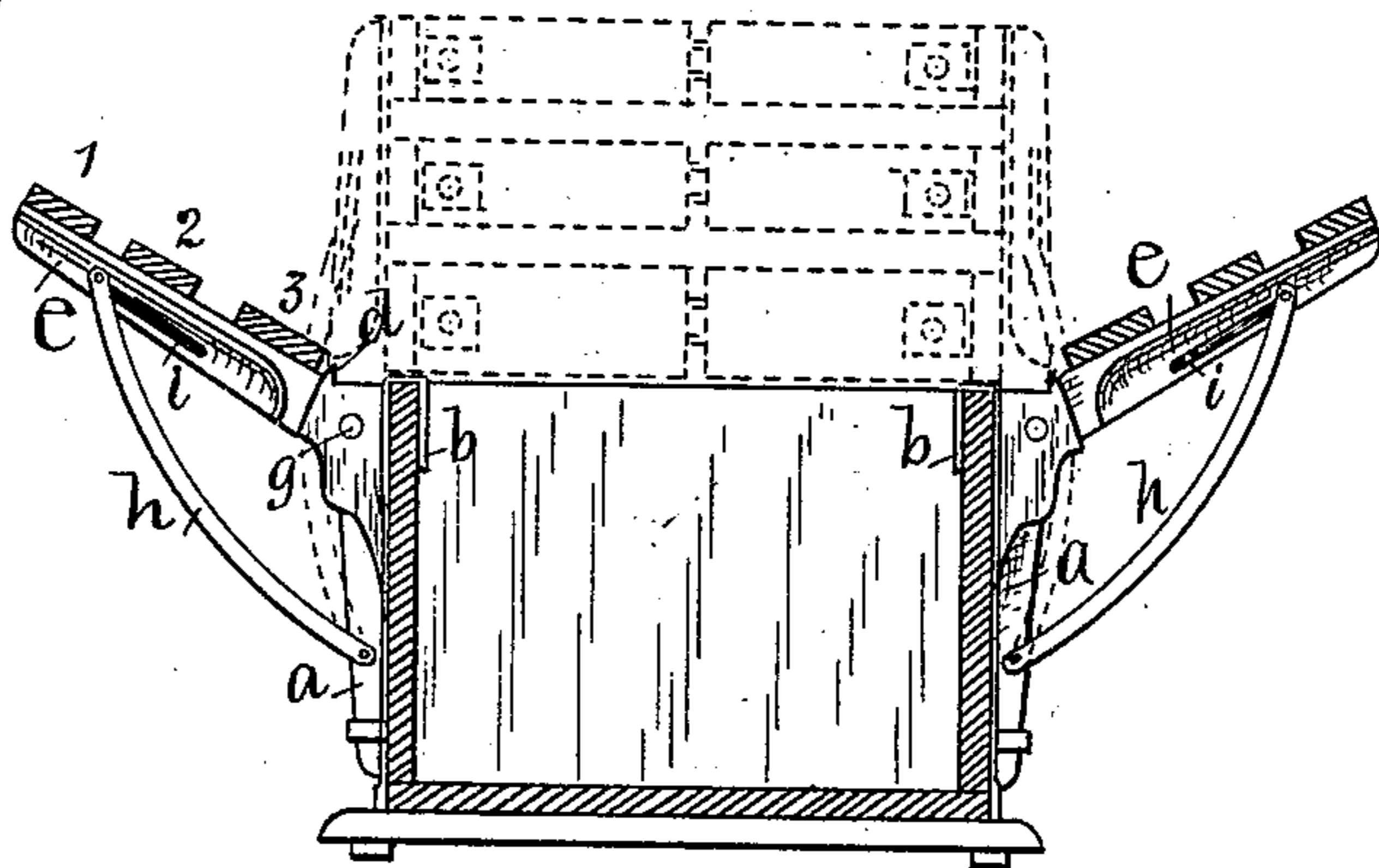
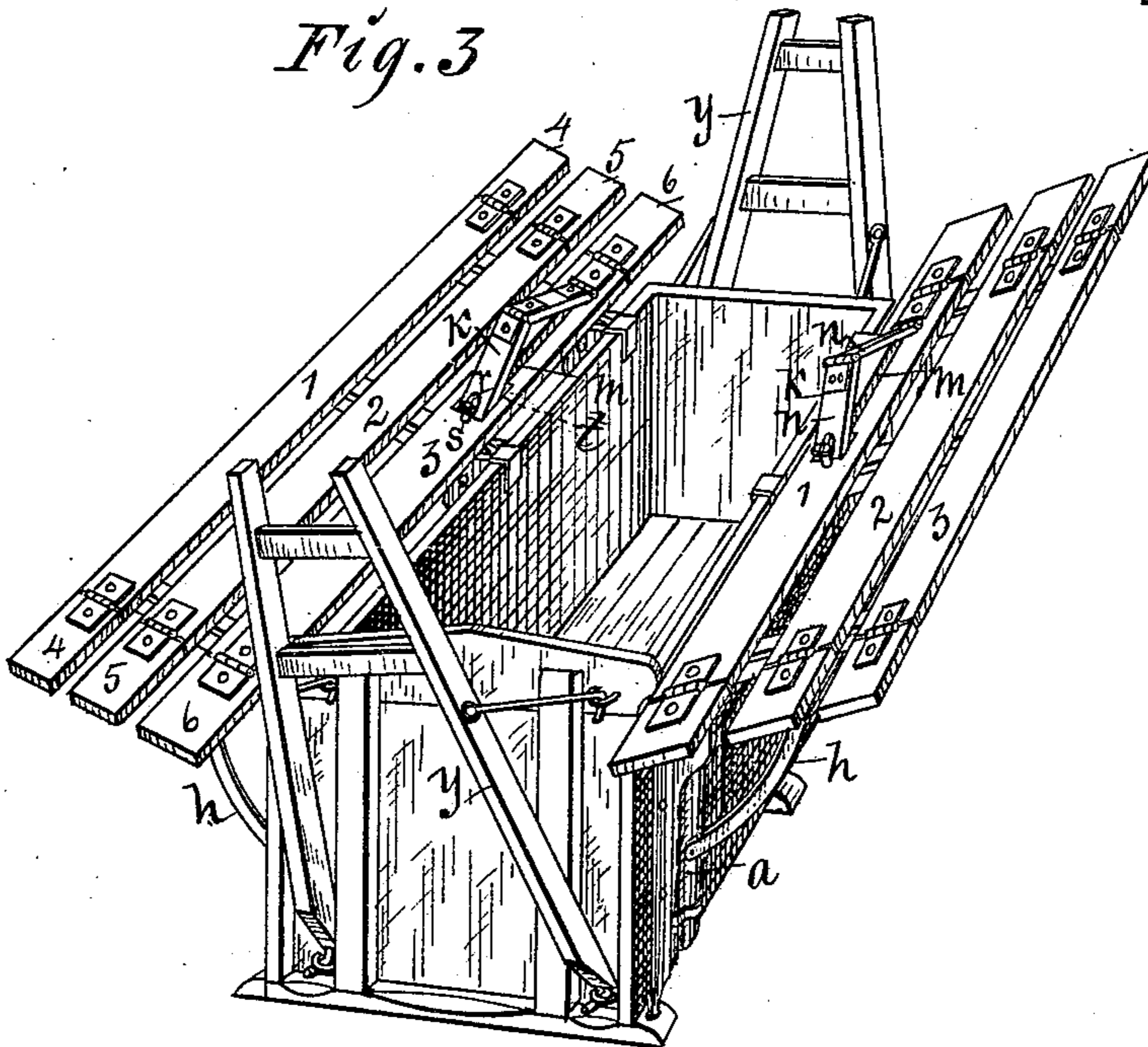


Fig. 3



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UNITED STATES PATENT OFFICE.

PHILIP BUTTERFUSS, OF WINTERSSET, IOWA.

RACK FOR FARM-WAGONS.

SPECIFICATION forming part of Letters Patent No. 231,003, dated August 10, 1880.

Application filed May 29, 1879.

To all whom it may concern:

Be it known that I, PHILIP BUTTERFUSS, of Winterset, in the county of Madison and State of Iowa, have invented a Transformable Hog and Hay Rack for Farm-Wagons, of which the following is a specification.

The object of my invention is to provide an attachment for farm-wagons that can be readily applied to a wagon-box, and easily adjusted and transformed to be used as a hog-rack or as a hay-rack, as occasion may require, and easily detached and stored away when the wagon is to be used for other purposes.

Heretofore complete boxes for wagons have been made transformable, and thereby adapted to be used for carrying hogs or hay. Sockets have also been rigidly fixed to the sides of wagon-boxes to receive and support the ends of brackets that formed the base of detachable hay-racks.

My invention contemplates forming two mating racks in such a manner that they can be connected on top of the wagon-box to form, in combination with the box, a closed hog-rack, and readily opened and spread out laterally to form a hay-rack.

It consists, first, in a bracket having a hook at its top end adapted to hang upon the top edge of the wagon-box, and a hinged arm at the same end adapted to support and carry a skeleton frame or rack; second, in the manner of combining a supporting-brace with the jointed bracket; third, in the manner of forming an adjustable wheel-guard for the hay-rack that can be folded out of the way on the hog-rack; fourth, in combining hinged sections with the ends of the removable racks in such a way as to be adapted to close the ends of the hog-rack and to be extended to lengthen the hay-rack, all as hereinafter fully set forth.

Figure 1 of my drawings is a perspective view of one of my jointed brackets. Fig. 2 is a transverse section of my transformable attachment applied to a wagon-box. Fig. 3 is a perspective view, showing my attachment in position as a hay-rack. Jointly considered, they clearly illustrate the construction, application, and operation of my complete invention.

a represents the body of my jointed bracket. It is preferably formed of cast-iron, and made

malleable. Its lower end is tapering, and adapted in shape to slide into a loop of corresponding size and form, that is fastened on the outside of a wagon-box in the manner that loops are fixed to receive the standards or cleats that are usually attached to the movable side-boards of farm-wagons.

b is a hook extending inward from the upper end or head of the bracket-body *a*. It may be formed integral with the body or fixed thereto in any suitable way in such a manner that it will readily slip over the top edge of a wagon-box to suspend the complete bracket on the outside of and on a level with the top edge of the wagon-box.

c is a mortise or slot in the head of the body *a*, directly opposite the hook *b*.

dd are upward projections, forming shoulders on the top surface of the slotted head of the body *a*. They are designed to brace and support the hinged and adjustable arm that is connected with the body *a* when it is in a vertical position.

e is the adjustable arm. It has a tenon at its lower end that fits and moves in the slot *c* of the body *a*.

f is an elongated pin-hole in that tenon through which a bolt or pin, *g*, is passed to connect the arm with the body of the bracket, and as required to form a hinge-joint.

When the arm *e* is turned outward to assume an inclined position relative to the wagon-box, as required when in use as a hay-rack, the end of its tenon will rest against the vertical and rear wall of the mortise, and the shoulders of the tenon will rest against the inclined corner edges of mortised head of the bracket-body, and a stiff-back joint is thus produced that restricts the outward and downward movement of the adjustable arm.

h is a brace hinged to the lower portion of the bracket-body *a*, to aid in supporting the hay-rack, when required. It is flexibly connected with the movable arm *e* at its top end by means of a bridle, *i*, formed in or attached to that arm, and in such a manner that the brace will fold flat upon the outside of the complete bracket when the hinged arm is in a vertical position, as required for use as a hog-rack.

When the hinged arm is in a vertical posi-

tion the elongated pin-hole *f* in its tenon will allow it to drop sufficiently to allow the shoulders *d d*, at the corners of the mortise, to engage the shoulders of the tenon, and to thereby produce a second stiff-back joint that will retain the arms of the complete rack in a vertical position until it is lifted and the locking-projections *d* disengaged from the shoulders of the tenons.

1 2 3 are boards fixed to the arms *e*, to form movable racks.

k k (shown in Fig. 3) are wheel-guards. They are formed by cutting slots *m* in the rack-boards 1 and 3, and fastening the hinged guard-sections *n n* at one end of the slot in such a manner that the guard will cover the slot when in a flat position, and allow the wagon-wheel to project upward through the slot and rack when it is in position as a hay-rack. The free ends of the guards *k* are bifurcated and beveled, so that they can be readily fastened when flat or bowed.

r is a slot in the guard, that engages a stud, *s*, that is fixed in the rack at the end of the slot *m*.

t is a notch or catch formed in or attached to the rack at the end of the slot *m*, to receive and hold the beveled end of the guard when it is bowed upward in the hay-rack.

4 5 6 are hinged sections at the ends of the racks, that connect with each other when the racks are in a vertical position, to form closed ends for the hog-rack, and that will extend horizontally to lengthen the hay-rack when the hinged racks are inclined outward, as shown in Fig. 3. These sections 4 5 6 are connected with the racks by means of stiff-back hinges, and their free ends are made to overlap, or provided with lapping hasps, so that they can be readily fastened together, as required, to close the ends of the hog-rack.

yy are detachable ladders that can be readily fastened to the ends of the wagon-box by means of hooks and staples, to aid in supporting and binding a load of hay upon the hay-rack.

In the practical operation of my invention I contemplate furnishing my adjustable brackets to farmers ready to be connected by means of boards to produce a transformable hog and hay rack. No skilled labor will be required to construct and operate my complete invention when the hinged brackets are furnished, and much labor and expense may be saved to the farmers by thus providing the base-pieces of complete removable and adjustable brackets, with which may readily be constructed a strong, durable, and efficient wagon attach-

ment adapted to be used for hauling corn, hogs, or hay, as occasion may require.

I am aware that two wooden arms have been hinged together by means of a common metal hinge in such a manner that shoulders formed on the connected ends of the arms would engage each other when the upper arm was in a horizontal position and the lower one fixed in a vertical position against the side of a wagon-box to accomplish the results contemplated by my removable and adjustable bracket; but my manner of forming a hinged and sliding connection that will allow the upper part to drop into the lower when in a vertical position, so that it must be raised before it can be turned outward, is novel and greatly advantageous.

I claim—

1. The combination of a bracket-body having a hook and projections, and an arm having shoulders to engage the projections to hold the arm in either a vertical or inclined position, the body and arm being united by a hinged and sliding connection, whereby the arm may be shifted to its different positions, substantially as described, for the purposes specified.

2. The bracket-body *a*, having a hook, *b*, a mortise, *c*, and projections *d d*, the arm *e*, having a tenon with shoulders, and a slot, *f*, in that tenon, and the connecting-pin *g*, formed, arranged, and combined, substantially as shown and described, to operate in the manner set forth, for the purposes specified.

3. The hinged and sliding brace *h*, in combination with the bracket *a* and its hinged and sliding arm *e*, substantially as and for the purposes shown and described.

4. In a hay-rack, the wheel-guard *k m n r s t*, constructed and operated substantially as shown and described, for the purposes specified.

5. The hinged sections 4 5 6, in combination with the movable and transformable racks composed of jointed brackets and boards 1 2 3, substantially as shown and described, for the purposes specified.

6. The jointed brackets *a b d e*, carrying the boards 1 2 3, hinged sections 4 5 6, and wheel-guards *k n*, in combination with a wagon-box, substantially as shown and described, to be operated in the manner and for the purposes set forth.

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