S. Blackrell,

Harness,

No. 14,438, Patented Mar. 18, 1856

Fig. 1.

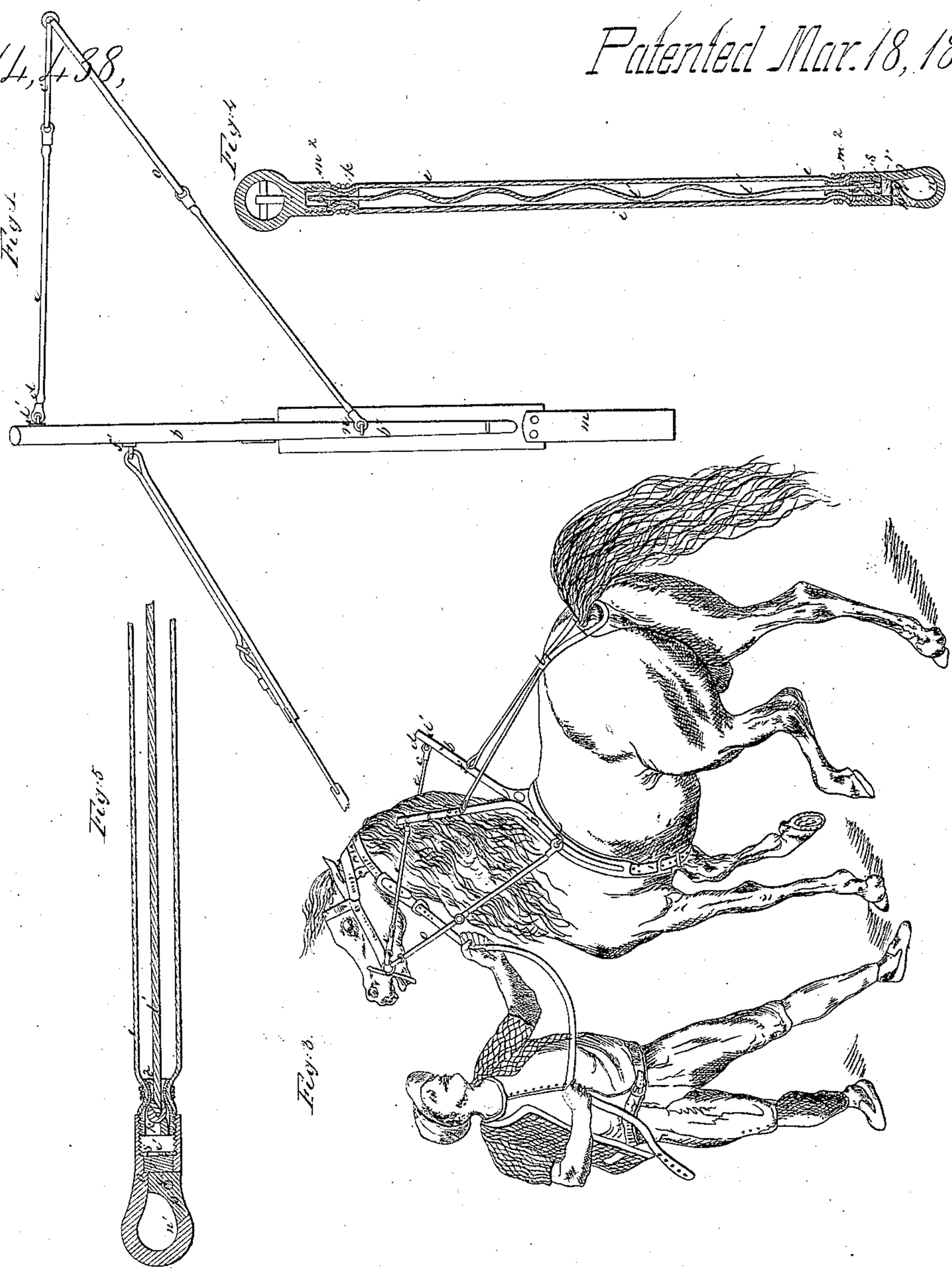
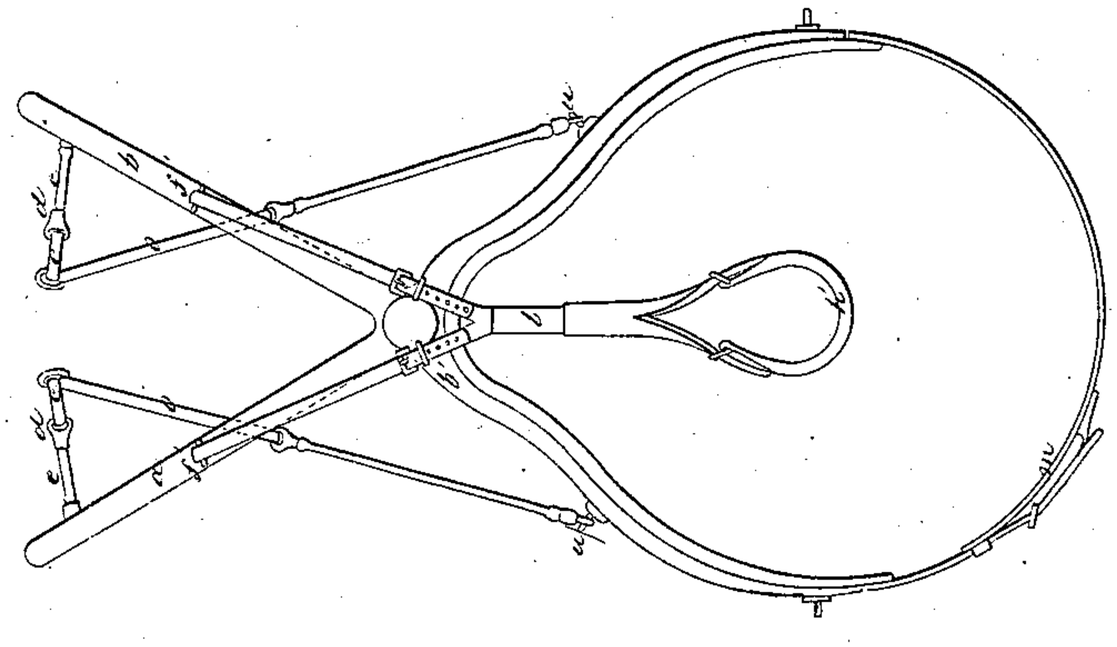


Fig. 3.

Fig. 4.

Fig. 5.

Fig. 2.



UNITED STATES PATENT OFFICE.

SAML. BLACKWELL, OF MIDDLESEX COUNTY, ENGLAND.

DUMB JOCKEY, THE CROSS OR HORN AND SADDLETREE BEING MADE OF GUTTA-PERCHA.

Specification of Letters Patent No. 14,438, dated March 18, 1856.

To all whom it may concern:

Be it known that I, SAMUEL BLACKWELL, of Oxford Street, in the county of Middlesex, England, saddler and harness manufacturer, a subject of the Queen of Great Britain, have invented an Improved Dumb Jockey or Apparatus to be Used in Breaking or Bitting Horses, and do hereby declare that the same is fully described and represented as follows.

Hitherto this article has been made of wood and consequently has been attended with the objection of not adapting itself to the shoulders of horses of different sizes and further in the event of a horse rearing or becoming unmanageable and rolling or falling on his back during the operation of bitting or breaking in many instances, the wood of which the dumb jockey has been made has been known to splinter and injure the animal.

Now the object and intention of this invention is to obviate these objections by constructing the horns or other parts of the dumb jockey flexible so that they will readily spring or bend on force being applied to them; and for this purpose I form such of gutta percha and I also make of the same material those parts of the article which are required to be in contact with the shoulders and sides of a horse, whereby a dumb jockey thus constructed will adapt itself closely, either to a thick or thin shouldered horse and will not break or splinter and in the event of a horse rolling or falling on his back.

Figures 1 and 2 exhibit side and end views of a dumb-jockey constructed according to the said invention while Fig. 3 shows the same as it would appear when applied to a horse such also exhibiting the elastic reins or stays before mentioned applied thereto and the crupper for maintaining the dumb-jockey in the required position.

a, *b* are the cross horns of a dumb-jockey they being formed flexible but with a proper degree of stiffness, that is to say, they should be made with such a degree of flexibility and spring as to bend and operate as a spring to break the fall of a horse when he falls backward or on his back, or so as to bend up and not splinter or break when he may fall so as to bring them in contact with the ground or any object. They should also be made with a stiffness sufficient to support them against the ordinary downward strain of the upper bit and tail stays. The saddle part or tree *b'*, is formed of gutta percha.

c, *c*, are the upper bit stays or reins attached to the horns of the dumb jockey by spring hooks *d* which take into rings or staples *d'*, *d'*, fixed in the horns. The reins *c c* are attached to springs *e*, *e*, a longitudinal sectional view of a portion of one of which is given in Fig. 4. In said Fig. 4 *i* is a tube of vulcanized india rubber which is bound tightly around the stems of the metal knobs *k*, *k*.

l' is a string or cord to the length of which the spring is to be allowed to stretch. The string or cord *l'* is threaded through holes in the knob (*k*) and through the small metal washers m^2, and knobs are tied at the ends of the string or cord.

n' is a metal hook which is attached to the tube *o* which carries the piece, lever, or guard *p* which turns on the pin *q* and closes the hook *n'*.

r is a lump of vulcanized india rubber which is dropped into the tube *o* and compressed therein by screwing down the metal ring *s* so that the india rubber presses on the underside of the piece *p*, and keeps its end against the hook *n'*. When the piece *p* is pressed on externally the india rubber is compressed and bulges out through the hole *a'*, in the ring *s* as it has no other space to escape through; when the pressure is removed from the piece *p* the india rubber returns and forces it again out against the hook.

The above mode of arranging the spring of the guard of the hook, viz, with a chamber formed in the shank of the hook and having an expansion hole through its bottom, enables us to employ a piece of india rubber as a spring, and in a position and way, in which it is not likely to get out of order.

k', is an elastic crupper which may be connected to the horns of the cross of the dumb jockey by staples or rings *f'*, *f'*, fixed thereto. I construct the said crupper with a spring *l*, of vulcanized india rubber which is hollow and of similar construction to that of each of the reins or bit stays above mentioned; or instead of placing said spring at the precise part of the crupper as exhibited, it may be placed at any convenient part thereof. *m* is an elastic girth for attaching the dumb-jockey to the body of the horse. *n*, *n* are rings or staples securely fixed to the

lower parts of the cross and for connecting thereto and to the horse's bit other reins *o*, *o* or elastic stays similar in all respects to those marked *c* and hereinbefore described. Now supposing the reins *c* and *o* to be attached to the dumb-jockey and to the horse's bit in the position exhibited by the drawing it will appear manifest that any upward or downward movement of the horse's head will meet with resistance from one or other of the elastic reins *c* and *o* and thus a horse may be broken in and accustomed to carry his head in any desired position according to which of the rings of the dumb-jockey the reins *c* and *o* are attached. Heretofore in the construction of dumb-jockeys it has been customary to affix the reins or bit and tail stays to metallic springs either fastened to the sides of or inserted in the horns of the cross. When such springs are affixed to the outside surfaces of the horns they are dangerous to the horse in case he falls as he is often likely to while under the operation of the instrument. And where they are placed within the horns the latter as a necessary consequence they have to be made very large and clumsy. Besides this, the arrangement of spiral springs in the horns renders them difficult of access in case they ever get out of repair.

By arranging the springs in the stays or reins, I am not only enabled to employ elastic flexible horns but to obtain a greater length of spring than can be used to advantage when the springs are affixed in the horns.

I claim—

Making the cross and the saddle tree, of gutta percha, and thus a new article of manufacture, one possessing advantages, as specified.

SAMUEL BLACKWELL

Witnesses:

GEO. PITT,

JOHN R. PARKER.