(No Model.)

2 Sheets—Sheet 1.

E. G. BUTCHER.

EQUESTRIAN GYMNASIUM.

No. 377,233. Patented Jan. 31, 1888.

Fig. 1.

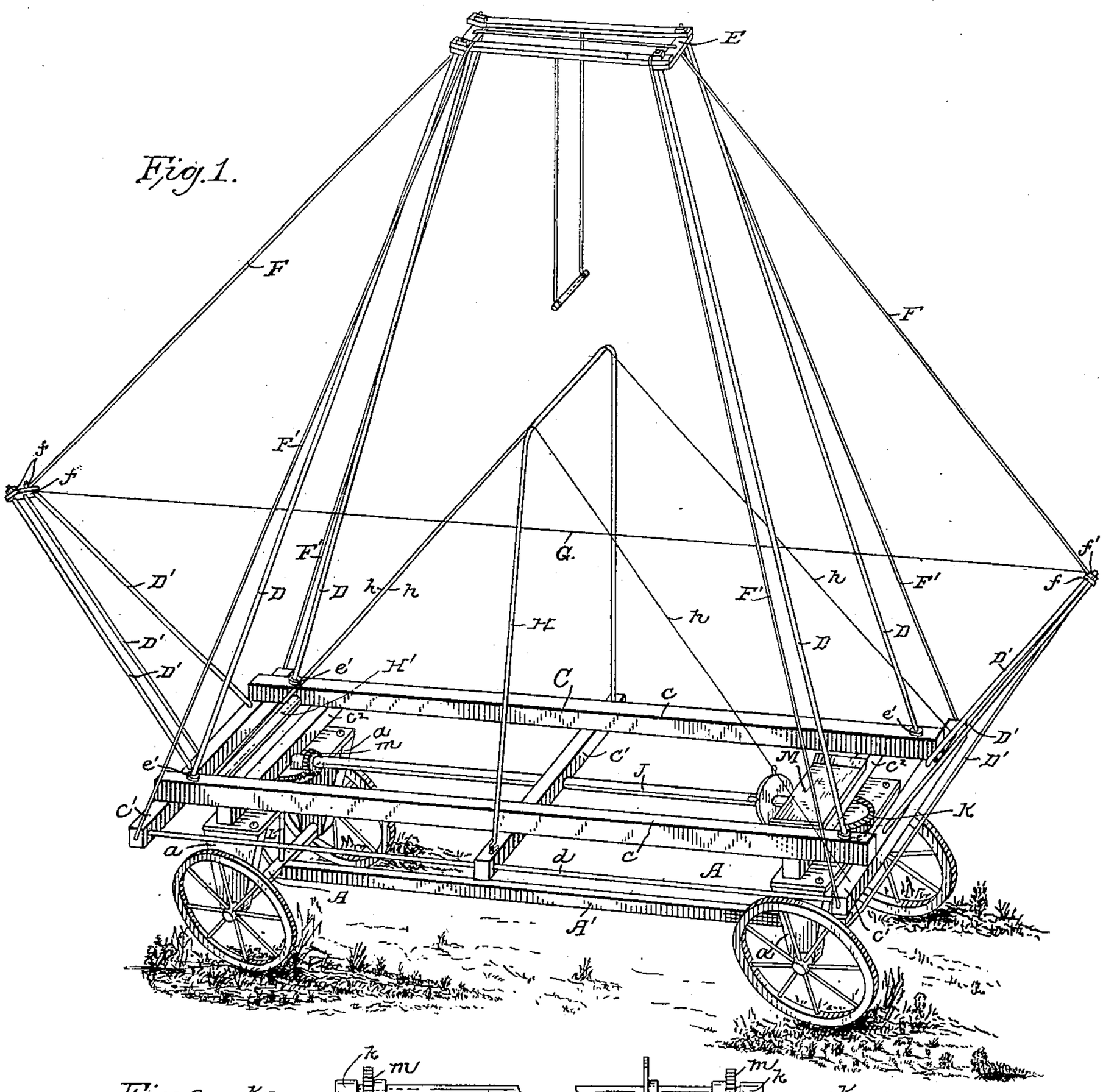


Fig. 2.

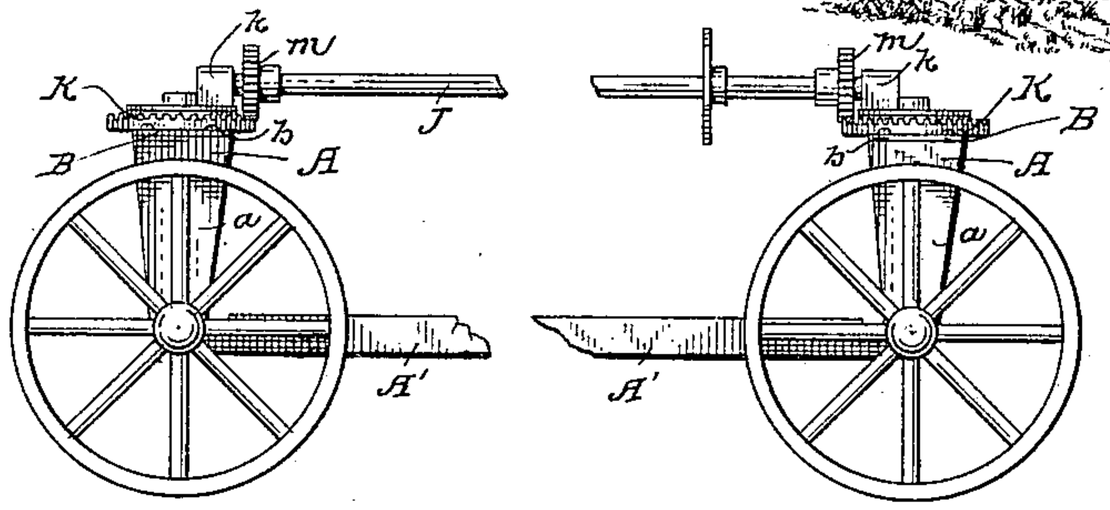
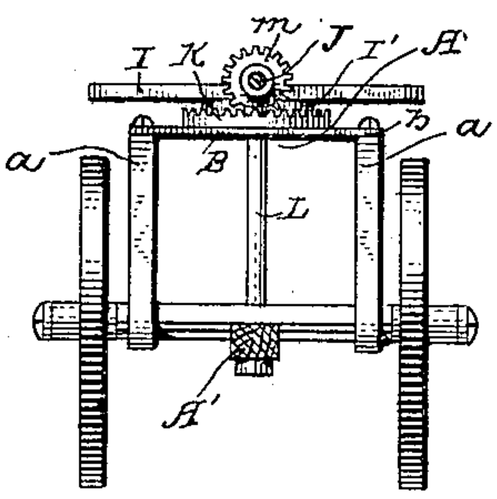


Fig 3.



Witnesses.
Preston Phelps.
Frank L. Dyer

Inventor:
Edward G. Butcher
by Geo. W. Dyer.
Attorney.

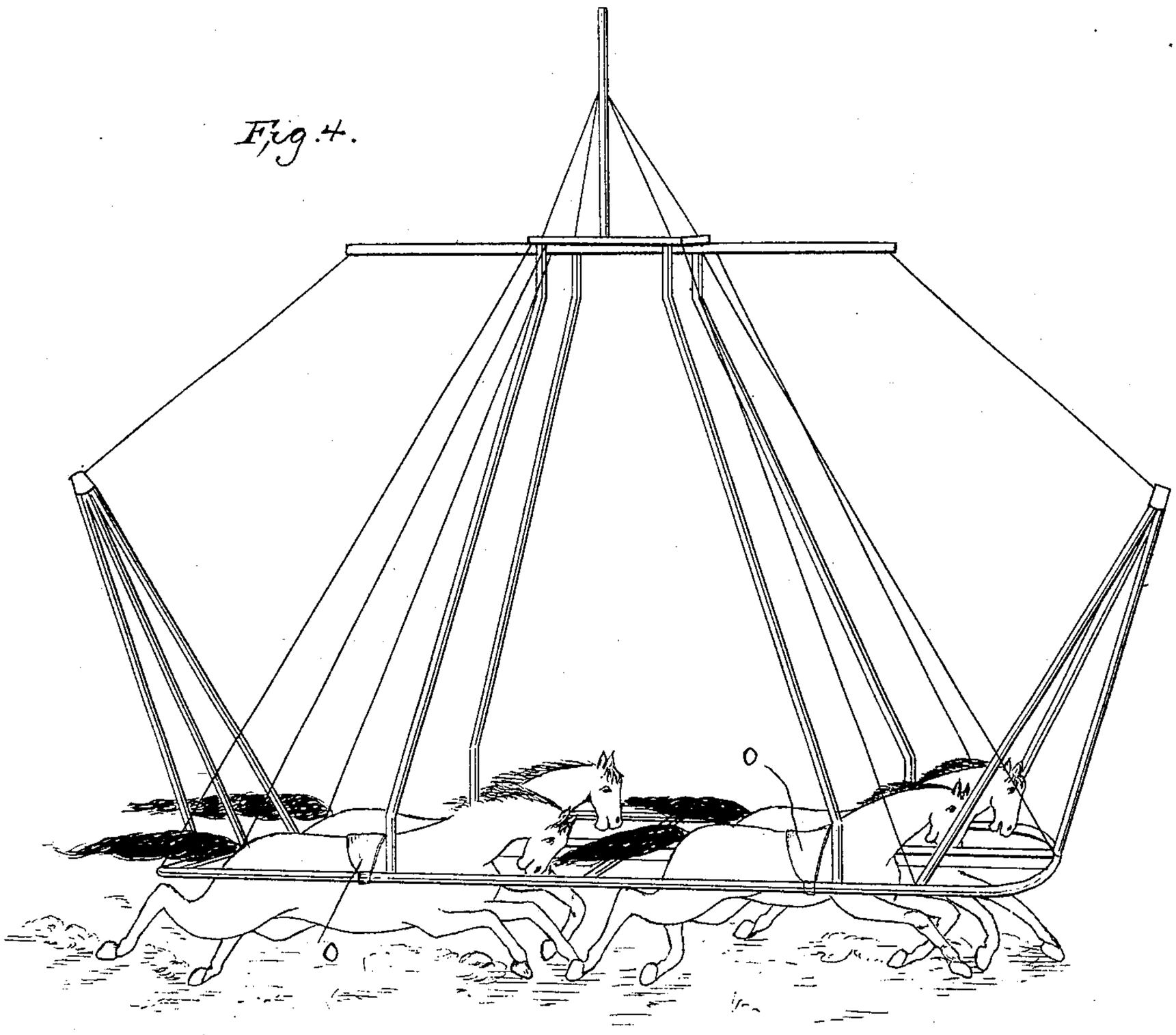
(No Model.) 2 Sheets—Sheet 2.

E. G. BUTCHER.

EQUESTRIAN GYMNASIUM.

No. 377,233. Patented Jan. 31, 1888.

Fig. 4.



Witnesses.
Frank L. Dyer.
C. Preston Phelps.

Inventor.
Edward G. Butcher
By Geo. W. Dyer.
Attorney.

UNITED STATES PATENT OFFICE.

EDWARD G. BUTCHER, OF CAMANCHE, IOWA.

EQUESTRIAN GYMNASIUM.

SPECIFICATION forming part of Letters Patent No. 377,233, dated January 31, 1888.

Application filed May 23, 1887. Serial No. 239,117. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. BUTCHER, a citizen of the United States, residing at Camanche, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Equestrian Gymnasiums; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an equestrian gymnasium—that is, one which is mounted upon the backs of horses, or upon trucks drawn by horses around the track at a circus, hippodrome, or country fair—for the use of one or more acrobats in giving exhibition performances.

The novelty of my invention lies in a gymnasium so mounted, together with the construction and arrangement of its component parts, all as will be more fully hereinafter described and claimed.

For a better understanding of the details of construction and arrangement attention is invited to the accompanying drawings, wherein like letters of reference denote corresponding parts, and in which—

Figure 1 is a perspective view of my gymnasium mounted upon two trucks and adapted to be drawn by four horses; Fig. 2, a detail of the two trucks and the steering mechanism, and Fig. 3 a detail of one of the trucks. Fig. 4 is a perspective view illustrating the device as being carried on the backs of horses.

I would state for information that while this machine can be and has been mounted upon the backs of the horses with very satisfactory results, it is better to mount it upon trucks, as it not only relieves the horses of the weight, but rides more steadily and enables the acrobat to perform with more grace and ease. For these reasons I have selected this form for illustration, and will describe it as adapted for use with four horses, although with but slight changes, more or less may be used according to the size or capacity of the whole.

In the drawings, A A denote a pair of two-wheel trucks which are connected by a reach, A′. The axle of each truck is provided with a platform, B, consisting of two uprights, *a a*, connected at their upper ends by a plate, *b*.

C is the frame, which is mounted upon the platforms of these two trucks and which supports the gymnastic appliances. This frame consists of two parallel side beams, *c c*, connected by three transverse beams, *c′ c′ c′*, one at each end and at the center. These transverse beams, which are of corresponding length, extend out some distance beyond the side beams, *c c*, and are connected at their outer ends by rods *d*, with nuts *d′* on their extremities.

The beams comprising this frame C are all connected by bolts and nuts, so as to be easily taken apart for packing and shipping. The frame thus constructed is bolted to two transverse beams, c^2 c^2, connected with the platforms B of the trucks. This frame C is provided with four uprights or poles, D, the lower ends of which pass through the ends of the side beams, *c c*, and are screw-threaded to receive nuts *e*, which screw up against the bottom of the beams *c*. These uprights or poles D are further provided with collars *e′* just above and next to the upper side of the beams. The upper ends of these uprights or poles are connected to a frame, E, in the same way as they are connected to the frame C, so that these parts can be easily taken apart for convenience in packing and shipping. From this upper frame, E, may be suspended a trapeze or a pair of rings, or both, if convenient. At each end of the frame C is a group of three stay-rods, D′ D′ D′. The center rod of this group is bolted to the reach A′, and the other two rods pass through the end beams *c′* of the frame, and are secured by nuts, as described with relation to the poles or uprights D. The outer ends of these stay-rods come together and are united by a plate, *f*, to which they are secured by a nut, *f′*, on the end of each. A rope or wire cable, F, connected to the outer end of each group of stay-rods and passing through the topmost frame, E, serves to brace these parts, and additional bracing is furnished by four ropes or wire cables, F′, attached to this frame C at the ends of its end beams *c′ c′*. These two groups of stay-rods also furnish the means for attaching a tight rope, G, and the ropes or cables may be gayly decked with flags or bunting to make the machine as attractive as possible in appearance.

To the central transverse beam *c′* of the

frame C is hinged a standard, H, which constitutes a horizontal bar. This standard is braced by two ropes or wire cables, *h h*, which at one end are connected to the rear end of the frame C and at the other end are wound upon a windlass, H′, located at the front end of the frame C. By means of this windlass the standard can be tightly braced when in use, and when not in use it can be lowered, so as to rest upon the frame C.

To the bottom of each of the transverse beams c^2 c^2, to which the frame C is secured, is bolted a plate, I, to which in turn is bolted a flat circular disk, I′, provided on top near its periphery, on the inside of the beam c^2, with a journal-box, *k*. These two journal-boxes *k k* furnish end bearings for a central shaft, J, running parallel with the side beams, *c c*, of the frame C. This shaft is provided with two small pinions, *m m*, one near each of its end bearings, and these pinions mesh with two crown cog-wheels, K, bolted one to each of the platforms B of the trucks A. Each of these trucks turns upon a king-bolt, L, which passes down through it and the end of the reach.

The shaft J is provided with a pilot or steering wheel just in front of the driver's seat M, by which he is enabled to simultaneously turn both the front and rear wheels in the direction he wishes to take.

The horses are hitched in the frame C between its side beams, *c c*, and the rods *d d*, which connect the ends of its transverse beams *c′ c′ c′*. By placing the horses in the frame the draft is lightened and the driver is enabled to control them better than if they were hitched to the front end, and besides these advantages this arrangement prevents the carriage from tilting or swaying in making short turns.

Although it is usually advantageous to mount the apparatus upon trucks, as herein described, still in some instances it may be more economical to carry the apparatus directly on the horses' backs, and for this purpose the saddles O O are employed.

The saddles, which should be padded to insure comfort, are attached to the central bar and the outside bars, respectively, by the ends, as will be seen by an inspection of Fig. 4, and are adapted to fit over the horses' backs, and when all are in proper position the side bars and the central bar should hang in about the same position as when the trucks are used.

A machine of this kind forms quite an attraction in this line of amusements. Besides it does away with the expense and labor of putting up the several gymnastic appliances for a performance.

I do not wish to be confined strictly to the details of construction and arrangement of the parts of this machine as herein shown, as they are capable of many changes without the exercise of invention.

What I claim, and desire to secure by Letters Patent, is—

1. A vehicle carrying a frame-work, side spaces in said frame-work, in each of which one of the draft-horses is harnessed, and a gymnasium mounted upon said frame-work, all combined substantially as and for the purposes set forth.

2. A vehicle carrying a frame-work with side spaces in which to harness the draft-horses, a gymnasium mounted upon said frame-work, and mechanism for steering the vehicle, all combined substantially as and for the purposes set forth.

3. A vehicle carrying an open frame-work of beams detachably connected together, and gymnastic appliances attached to and supported by stay-rods and uprights detachably secured to said frame-work, substantially as and for the purposes set forth.

4. A gymnasium composed of a pair of two-wheel trucks, a frame mounted upon said trucks, a group of stay-rods at each end of said frame, and a tight rope stretched between said groups of stay-rods, substantially as described.

5. A mounted gymnasium composed of a pair of two-wheel trucks, a frame mounted upon said trucks, four uprights secured to said frame and connected by a frame at their upper ends, and a trapeze or the like suspended from said upper frame, substantially as described.

6. A mounted gymnasium composed of a pair of two-wheel trucks, a frame mounted upon said trucks, and a horizontal bar mounted upon standards secured to the center of said frame, substantially as described.

7. A mounted gymnasium composed of a pair of two-wheel trucks, a frame mounted upon said trucks, a horizontal bar mounted upon standards hinged to said frame, stay ropes or cables for the standards, and a windlass for tightening said stay ropes or cables and for raising and lowering the standards with its bar, substantially as described.

8. In a mounted gymnasium, the combination of a pair of two-wheel trucks and a frame mounted upon said trucks and provided with four uprights and two groups of stay-rods connected by stay ropes or cables, substantially as described.

9. In a mounted gymnasium, the combination, with the trucks upon which the same is mounted, of a crown cog-wheel secured on the platform of each truck, and a shaft provided with pinions meshing with said cog-wheels and with means for turning said shaft, substantially as described.

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

EDWARD G. BUTCHER.

Witnesses:
J. E. McPHERSON,
JNO. P. CAMPBELL, Jr.