J. JAMES.

STALL EQUIPMENT.

APPLICATION FILED MAY 6, 1915.

1,253,494. Patented Jan. 15, 1918.

Fig. 1.

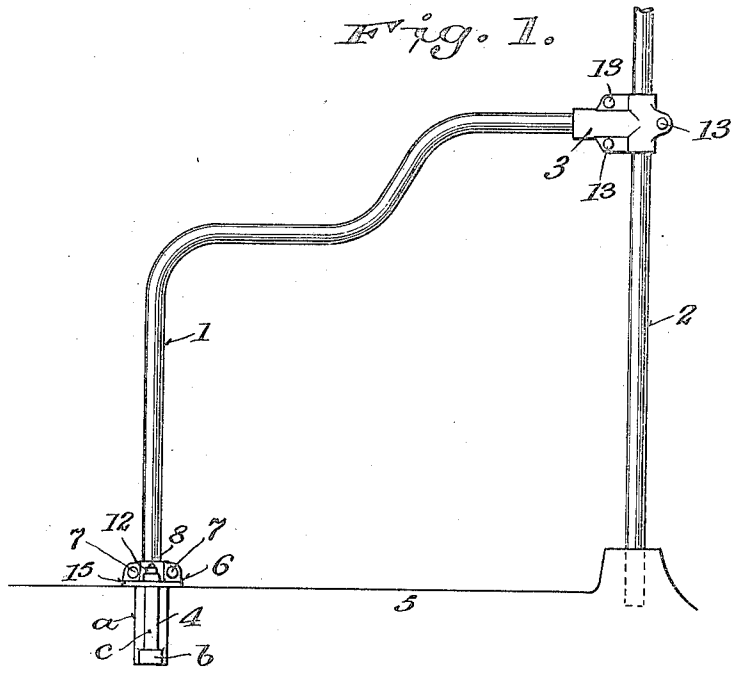


Fig. 2.

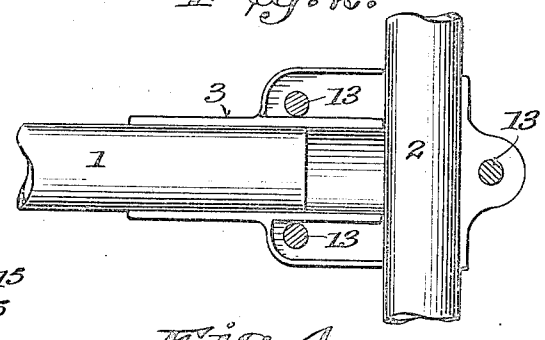


Fig. 3.

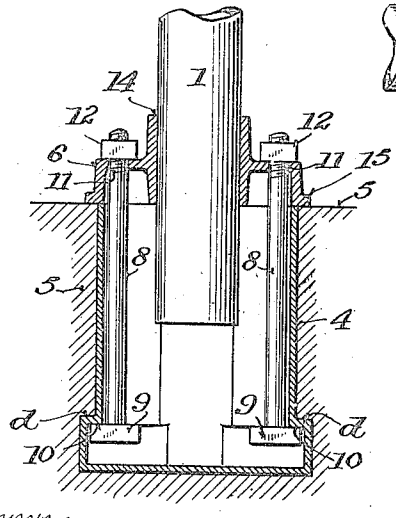
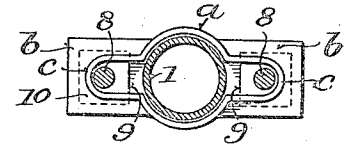


Fig. 4.



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STALL EQUIPMENT.

1,253,494. Specification of Letters Patent. Patented Jan. 15, 1918.

Application filed May 6, 1915. Serial No. 26,255.

To all whom it may concern:

Be it known that I, JOHN JAMES, a citizen of the United States, residing at the city of Fort Atkinson, county of Jefferson, and State of Wisconsin, have invented new and useful Improvements in Stall Equipments, of which the following is a specification.

My invention relates to improvements in stall equipment with especial reference to the means employed for securing division or partition members to the posts and floors of stables.

Heretofore, it has been common to permanently embed or anchor the lower ends of such posts or division members in concrete floors directly and anchors for such purpose have frequently been dispensed with for the reason that unless they are accurately positioned, the partition members will not register, and cannot be properly connected. Experience has, however, demonstrated the fact that such posts or division members when inserted directly into the concrete usually become rusted at or near the upper surface of the floor, whereby they are liable to be broken off at such point.

The object of my present invention is therefore to provide means whereby anchors may be embedded in the concrete of a stable floor before the posts or division members are attached thereto, the construction being such as to readily permit the posts or division members to be raised or lowered to suit the requirements for animals of different sizes, or to bring a rusted or weakened portion of such member within the anchor or expose it for repainting, whereby the liability of such member becoming broken is avoided; also by which such post or division member may be adjusted forwardly or backwardly or toward the right or left as may be required to bring the post or division member into registry with the anchor when setting up or installing the equipment, notwithstanding inaccuracies in the location of anchors which are embedded in concrete and cannot be readjusted; also to provide means, whereby the anchorage of the division members or posts, is not dependent upon the permanence of the metallic members of the anchor.

My invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a side view of a division member anchored to a floor and post in accordance with my invention.

Fig. 2 is a side view, of a portion of the device for connecting the upper end of the division member of a stall with a vertical post.

Fig. 3 is a vertical section of my anchor in connection with the lower end of the division member as the same is used in connection with a concrete floor, and

Fig. 4 is a plan view, part in section, of the anchor and division member shown in Fig. 3.

Like parts are identified by the same reference numerals throughout the several views.

1 represents the division member of an ordinary stall. 2 represents a vertical post with which the upper end of the division member is connected by a pair of clamping members 3, preferably constituting a so-called T clamp. The floor anchor 4 is preferably formed of cast metal which is adapted to be embedded in the concrete 5, as shown in Fig. 3. It is provided with a tubular central portion *a* to receive a post or division rod, and is also provided with an enlarged chambered-base *b* to which the central cavity extends. Ribs *c* on each side, are interiorly channeled along the wall of the central tubular portion to provide for manipulation of anchor bolts into position on opposite sides of the post or division member 1, with the heads of the bolts engaged in the base cavity. These bolts may be inserted through the central tubular member before the division member is inserted, the bolt heads being too large to pass through the channels. The bolt heads may be large enough to engage under the mass of concrete which overhangs the laterally projecting portion of the enlarged base and forms a shoulder *d*. A cap 6 is preferably formed of two separable members, rigidly connected together and clamped to the vertical sides of the member 1 by clamping bolts 7, whereby the member 1 may be supported at any

desired point of vertical adjustment in said anchor. The cap 6 is secured to the upper end of the anchor 4 by vertical anchor bolts 8. The heads 9 of said bolts are adapted to engage beneath the shoulders 10 of said anchor and partially underneath the concrete shoulders *d*.

When assembling my device the anchors 4 are first positioned in a mold and embedded in the concrete 5, as shown in Fig. 3. After the concrete has set, the bolts 8, 8 are inserted through the central tubular portion and manipulated into the channels in such a manner that the heads 9 engage beneath the shoulders 10 on the base portion. When this is done the cap 6 is clamped to the member 1 in the desired position and the lower end of member 1 is then inserted in the tubular portion *a* of the base until the cap rests thereon with the bolts 8 passing through the apertures 11 of said caps. Then the nuts 12 are turned down on said bolts, whereby the cap is rigidly secured to the anchor. It will now be understood that by loosening the bolts 7, shown in Fig. 1, the member 1 may be raised or lowered so as to be adjusted at the proper height and in registry with the clamping members 3, whereupon the upper end of the member 1 is inserted between said clamping members 3, as shown in Fig. 1. When this is done the nuts on the bolts 7 are tightened, whereby the member 1 is retained at the desired point of adjustment. The horizontal arms of the clamping members 3 are of sufficient length to allow member 1 to move inwardly or outwardly toward or from the post 2, thereby making it unnecessary to space the anchor 4 and post 2 with extreme accuracy. When the division member 1 is in position, the clamping bolts 13 may be tightened to firmly secure the member 1 and clamping members 3 to the post 2.

It will be obvious that by loosening the nuts on the bolts 13 the members 3 may be rotatively adjusted on the post 2 and the member 1 may also be adjusted toward the right or left as may be required to conform to the relative position of the post 2 and anchor 4, in case either should be laterally offset from the correct position, and when this is done the nuts on the bolts 13 are tightened, whereby the upper end of the member 1 is securely retained in place. It is well known that metal rods or posts anchored to the floor of a stable corrode rapidly at the floor level or at the point where they enter the anchor or anchor cap. But in my improved structure the member 1 may be raised and painted from time to time, or lowered and clamped in a position to bring a point weakened by corrosion below the upper end of the sleeve 14, whereby the liability of said member 1 becoming broken at such point is avoided.

Assuming that the anchor 4 may in course of time become rusted or disintegrated so that the shoulders 10 would cease to serve as bearings for the heads 9 of the bolts or that the anchor should be entirely destroyed by rust, the bolt heads 9 may then engage directly against the concrete shoulder *d*, whereby the stanchion member 1 may be thus securely retained in place.

It will, of course, be understood that the bolts 8 may be readily replaced with others in case they should become defective.

The cap 6 is provided with a horizontal flange 15 which is adapted to rest on the upper surface of the concrete floor, whereby, in case the entire anchor should become disintegrated, said cap may be firmly clamped and held in place upon the surface of the concrete by the bolts 8.

It will be observed that by providing a floor anchor for the division members of my improved stall equipment, which permit a vertical adjustment, and by providing coöperating means for anchoring the division members to the posts 2, which permit forward and backward vertical and also rotative movements when the clamping bolts are loosened, I secure practically a universal adjustment, for the division member may also be rotated in its socket in the clamping members 3 when such members are loosened. It is therefore even possible to anchor the division member to both the floor and the post in case the builder of the stable should, through carelessness or inexperience, fail to set the anchor 4 exactly in a vertical position in the mold preparatory to laying the concrete floor. The possibility of adjusting the division members to suit all these requirements is a very important feature of my invention and particularly so in view of the fact that the work of laying the floor and setting up equipment in farm stables is usually done by inexperienced persons.

While I have shown and described the member 1 as a division member, it will be observed that the portion of the member which is socketed in the anchor 4 constitutes a post which the horizontally extending portion connects with the post 2 through the clamping members 3. It is not material to the present invention, by what means the support or post 2 is anchored to the floor, as these supports are not subject to exposure to moisture and corroding acids to any great degree. Any form of support 2 which facilitates or permits the described adjustments will be adapted for the purposes stated.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. The combination with a concrete floor, of an anchor embedded therein and com-

prising a vertical shell, provided at its lower end with a laterally extending chamber forming bearing walls for engagement with the heads of bolts, a cap, a plurality of bolts for securing said cap in place above the surface of such concrete floor, each having a head at its lower end projecting into said chamber and means for securing a vertical member at a fixed point in said cap.

2. A device for securing a stall equipment member to a concrete floor, including an anchor comprising a shell provided at its lower end with a laterally extending chamber forming bearing walls for engagement with the heads of bolts, in combination with bolts having heads engaging said bearing walls, a cap formed of separable members adapted to be adjustably clamped to the sides of said equipment member, said bolts securing said cap in place upon said shell and upon the surface of the concrete floor.

3. A device for securing a stall equipment member to a concrete floor, including an anchor consisting in a vertically disposed metallic shell adapted to be embedded in the concrete and provided at its lower end with a laterally extending chamber forming bearing walls for engagement with the heads of bolts, in combination with a cap formed of separable members, a plurality of bolts for clamping the members of said cap to the sides of an equipment member when the latter is socketed in said shell, and a plurality of bolts engaging said bearing walls and securing said cap in place upon the shell.

4. In a device of the described class, the combination of a metallic shell provided at its lower end with a laterally extending base portion the walls of which are adapted to form bearing ledges for engagement with the heads of bolts, a clamping cap for closing the upper ends of said shell and adapted to engage and support a stall division member, and a plurality of bolts located in said shell and adapted to secure said cap to the upper end of said shell in engagement with the bearing ledges.

5. Stable equipment including a floor anchor, adapted to be embedded in a concrete floor and provided with a post receiving cavity, having channeled walls into which connecting members may be manipulated from said cavity, in combination with connecting members adapted to interlock with the anchor in said cavity, and to which superposed equipment may be secured.

6. Stable equipment including a floor anchor, adapted to be embedded in a concrete floor and provided with a post receiving cavity, said anchor having channeled walls into which connecting members may be manipulated from said cavity, the base portion of said anchor being chambered to receive the heads of such connecting members, and a post engaging cap adapted to be secured to the anchor by such connecting members, said anchor being formed to permit the concrete of the floor to extend partially over the base chamber to provide an overhanging ledge beneath which the connecting members may interlock.

7. Stable equipment including a floor anchor, adapted to be embedded in a concrete floor and provided with a post receiving cavity, having channeled walls into which bolts may be manipulated from said cavity, the base portion of said anchor being chambered to receive the heads of such bolts, in combination with bolts in said channels and a post clamping cap engaged by said bolts.

8. Stable equipment, including the combination with a concrete floor, of a support fixed to the floor, an anchor member embedded in the floor at a point distant from the support and provided with a post receiving socket, a partition member having a post vertically adjustable in said socket, means for securing the partition member in various positions of vertical adjustment with its lower end in the socket in substantial correspondence to the requirement for the animal to be confined, and means for adjustably connecting the partition member with the support in its various positions of vertical adjustment.

9. Stall equipment for stables, including the combination with a concrete floor, of a floor anchor permanently embedded in the floor and provided with a post receiving socket, a partition member having a post vertically adjustable in said socket, and a clamping cap for the anchor adapted to support the post in various positions of vertical adjustment in the socket.

10. Stall equipment for stables, including the combination with a concrete floor, of a post engaging member adapted to support the post from the floor and provided with a post engaging sleeve inclosing and closely embracing the surface of the post in moisture excluding relation thereto for a substantial distance above and below the upper surface of the post-engaging member, said member having supporting flanges adapted to rest upon the floor, and means for connecting said member with the floor, said post being vertically adjustable in said member.

11. The combination with a concrete stable floor provided with post receiving sockets having recessed walls and overhanging ledges, of a post adjustably mounted in said socket, post engaging members adapted to rest upon the floor, and connecting members adapted to detachably engage said ledges and said post engaging members to bind the latter and the post in position.

12. Stall equipment for stables, including the combination with a floor, of a post en-

gaging clamping member provided with a split sleeve adapted for binding engagement with the post and extending a substantial distance above and below the upper surface of the clamping member, means for clamping the sleeve upon the post in moisture excluding relation thereto, and means for securing said clamping member to the floor, said floor being provided with a socket adapted to permit a vertical adjustment of the post in said sleeve when the clamping engagement of the latter with the post is relieved.

13. Stall equipment for stables, including a vertically adjustable stall partition composed of a single rod bent into the required shape and provided with a post portion and a horizontally extending portion, in combination with means for clamping said rod to supporting members at its respective ends in various positions of vertical adjustment, the lower end of said post portion being movable through its clamp from the floor level to a substantially lower point.

14. Stall equipment for stables including a post engaging clamping member, adapted to support the post from the floor, said member being formed to inclose and protect the post at and near the floor level, and having supporting flanges adapted to rest upon the floor, said post being vertically adjustable in said clamping member, an anchor member adapted to be embedded in the floor and having a post receiving socket, and connecting members between the clamping member and anchor member interlocked with the latter below the level of the floor.

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

JOHN JAMES.

Witnesses:
H. L. WANDSCHNEIDER,
ROBT. F. PARKS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."