

March 6, 1951

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2,544,341

COLLECTING RECEPTACLE FOR URINE

Filed June 21, 1946

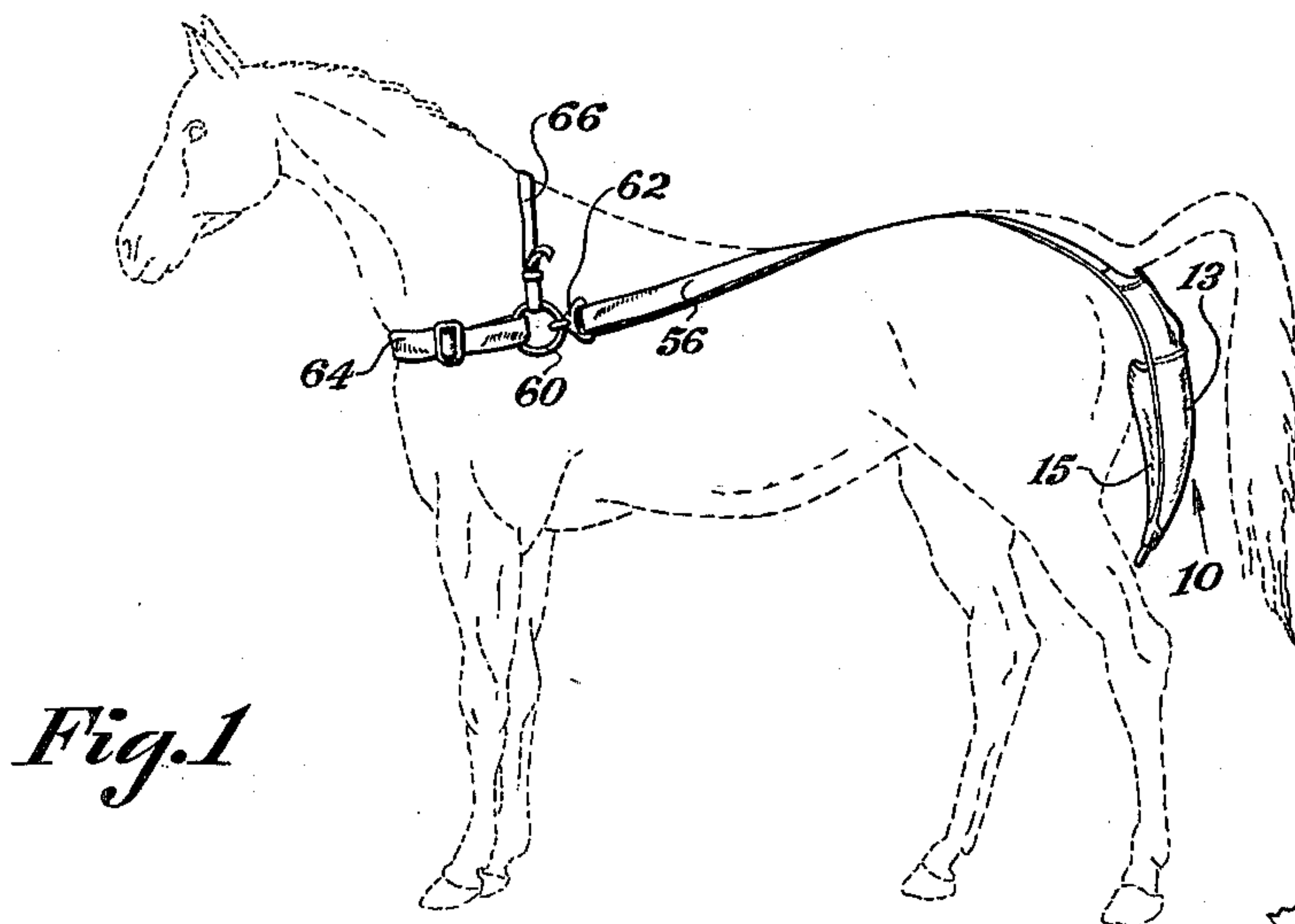


Fig. 1

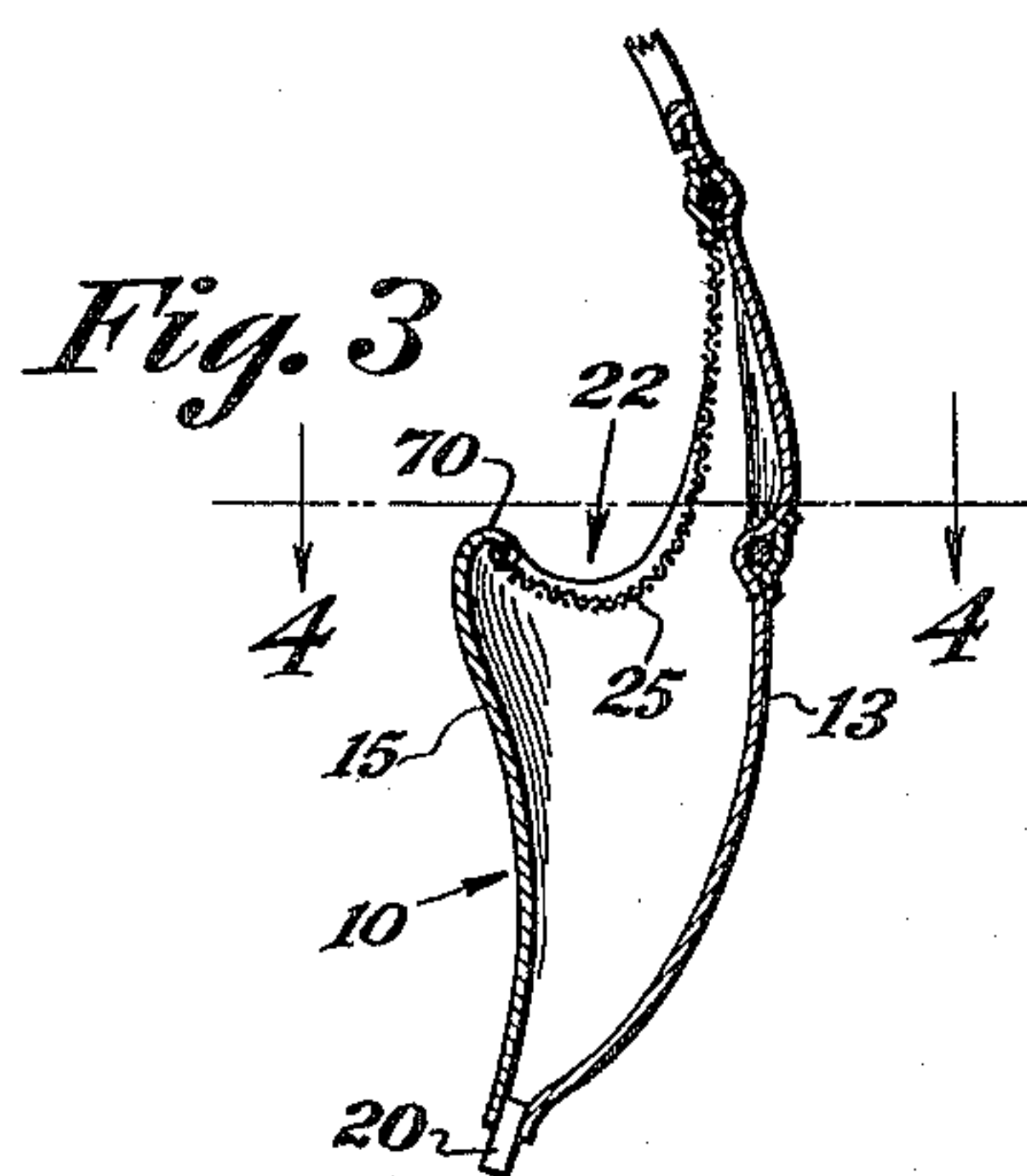


Fig. 3

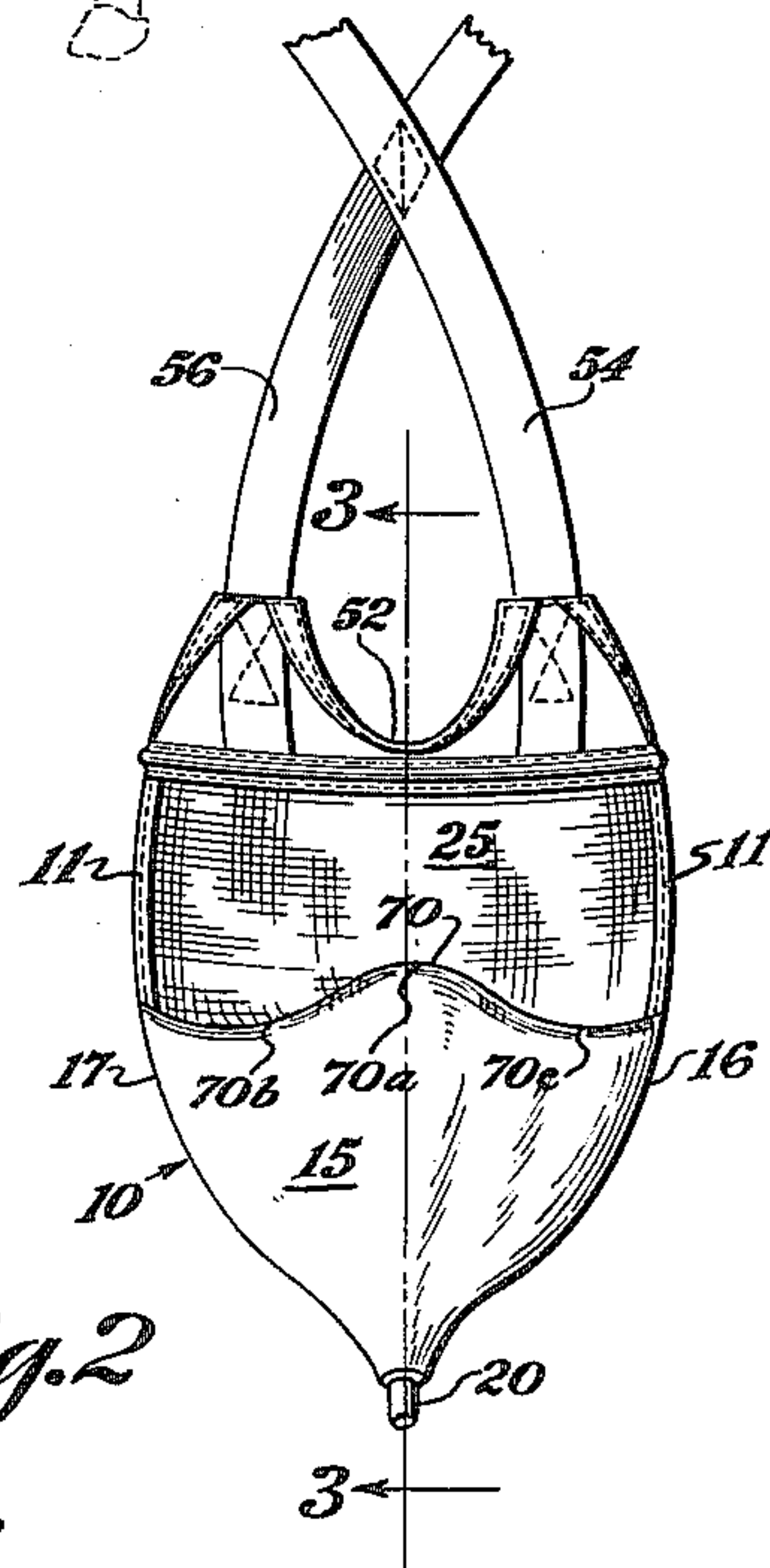


Fig. 2

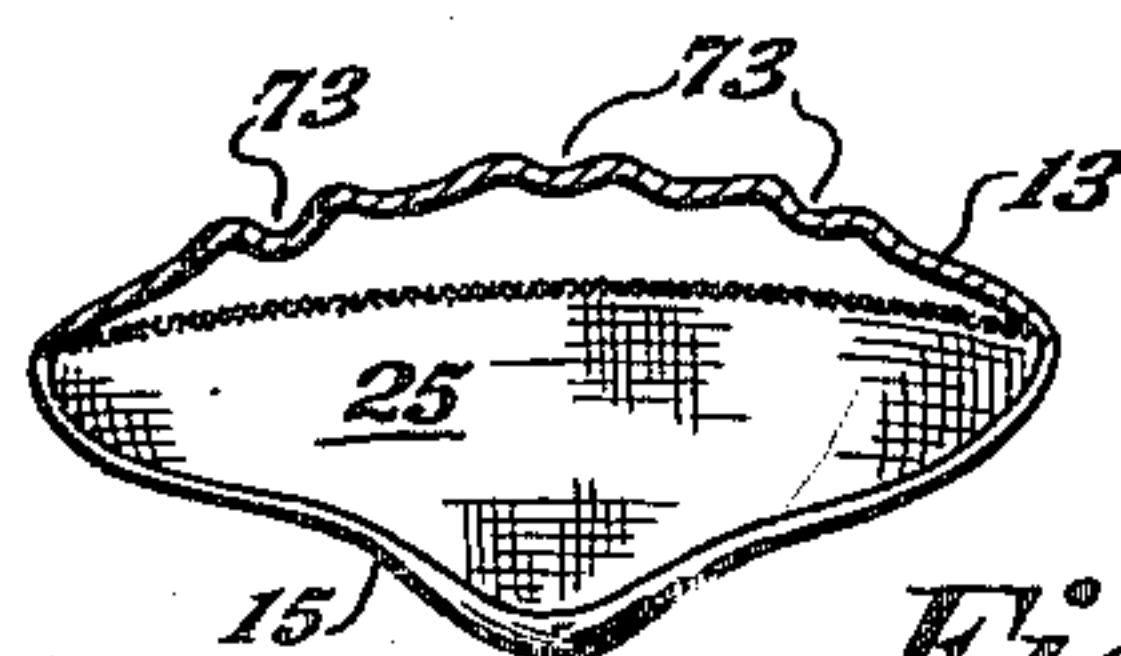


Fig. 4

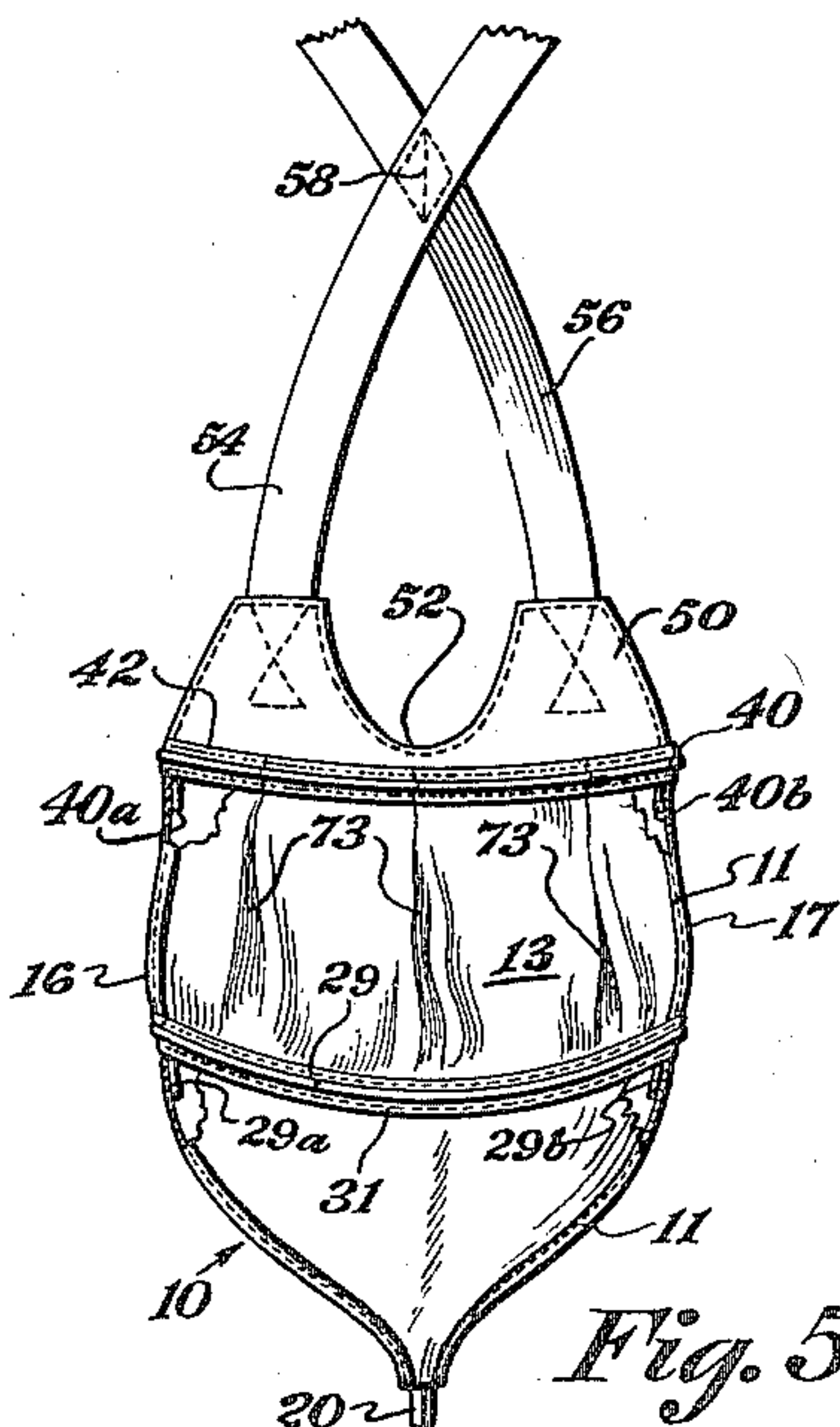


Fig. 5

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UNITED STATES PATENT OFFICE

2,544,341

COLLECTING RECEPTACLE FOR URINE

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Application June 21, 1946, Serial No. 678,422

6 Claims. (Cl. 119—95)

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This invention relates to receptacles for collecting the urine of mares.

In recent years it has been found that estrogenic hormones prepared from the urine of mares in foal are beneficial in the treatment of sterility in women. A number of devices and expedients have heretofore been used for collecting the urine of mares, but to the best of my knowledge such prior devices are subject to the drawbacks that they are wasteful of urine or do not protect the urine from contamination by foreign matter such as manure, etc.

Accordingly, it is an object of my invention to provide a receptacle capable of collecting urine substantially free of contaminatory foreign matter.

It is another object of my invention to provide a device of the class described constructed in a manner suitable to collect substantially all the urine excreted.

It is a further object of my invention to provide a receptacle which may be handled in a convenient manner for adjusting it to a specific mare.

It is a still further object of my invention to provide a receptacle having construction affording sanitary manual handling in emptying the contents thereof.

It is yet another object of my invention to provide a receptacle of durable but simple construction capable of collecting a large quantity of urine but collapsible so as to be stored in a minimum of space when not in use.

In attaining the above objects, I provide a bag of novel shape and structure comprised of some durable sheet material such as Neoprene, or the like, and having an opening at the top substantially covered and maintained open by a corrosion-resistant screen of suitable metallic material. The opening at the top has a lip fashioned so as to conform generally to a mare's hind quarters to fit with snugness between the hind legs and below the vulva. The receptacle is reinforced by suitably shaped wire rods so as to have sufficient rigidity to satisfactorily perform its function and yet be substantially collapsible so as to occupy a minimum of storage space when not in use.

A detailed description of my invention will now be given in conjunction with the appended drawings in which:

Figure 1 shows a receptacle, constructed in accordance with my teaching, applied to a mare illustrated in phantom outline;

Figure 2 shows a forward view of my receptacle;

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Figure 3 shows a section through 3—3 of Figure 2;

Figure 4 shows a section through 4—4 of Figure 3; and

Figure 5 shows a rear view of the receptacle.

With reference to the figures of the drawing, my invention comprises a bag 10 of sheet material such as Neoprene or the like. The bag is formed in several sections joined by suitably sewn and/or adhesively secured seams, preferably covered with piping 11 of the same material as the bag. In the specific example shown in the drawing I employ a rear section 13 and a front section 15, joined at the seams 16 and 17. The shape of the sections is such as to afford a generally triangular configuration leading downwardly to an outlet or spout 20, which spout may be a short length of rubber hose adhesively secured at the juncture of the lowermost extremities of sections 13 and 15. Spout 20 will be understood to be normally closed by a clamp or other suitable device (not shown). An open area 22 at the top of bag 10 is provided (Figure 3), which area is enclosed by a screen 25 of suitable mesh and constructed of stainless steel or the like, the screen being sealingly secured around the perimeter of opening 22. Screen 25 is fashioned with suitable surface curvature so as to conform to the upwardly curving and sloping configuration of the lateral edges of opening 22 and is of sufficient rigidity to insure against non-collapse of that opening. The bag 10 is reinforced by a wire rod 29 concealed within piping 31 secured to section 13 (Figure 5), which rod 29 encompasses the rear of bag 10 and has its ends 29a and 29b bent downwardly so as to extend a short distance into piping 11 at the lower portions thereof. In a similar manner, a wire rod 40 is enclosed within piping 42 near the top of the device and has its ends 40a and 40b bent downwardly to be retained in the upper portions of piping 11. The upper portion 50 of section 13 has a curved cut-out 52 adapted to fit around the tail of a mare and harness straps 54 and 56 are suitably secured by stitching or the like to portion 50. Harness straps 54 and 56 cross each other at 58 and extend to a ring 60 on each side of the mare, being secured thereto by a suitable snap 62, as illustrated in Figure 1. Rings 60 are held in position by adjustable straps 64 and 66 passing substantially horizontally and vertically, respectively, about the neck of the animal. It will be appreciated that bag 10 may be applied to any size animal by adjustment of straps 64 and 66.

A specific feature of my invention is the curva-

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ture of the forward lip 70 of opening 22, the lip being so fashioned as to provide a central rise 70a which slopes downwardly on both sides into the portions 70b and 70c. The curvature is so devised as to permit a substantially snug fit of lip 70 between the hind legs of the animal with the central portion 70a extending upwardly to a point slightly below the vulva and in contiguity with the animal at that point, so as to collect all urine excretion. The portions 70b and 70c are shaped so as to fit partially around and against the hind legs. The screen 25 which serves to prevent foreign matter such as manure, and the like, from entering bag 10 also serves to maintain the formation of lip 70, being suitably shaped and secured to lip 70 for such purposes, and further tends to break up the urine stream to minimize splashing against section 13 and consequent loss.

A further feature of my invention is found in the provision of pleats or gores 73 in section 13 which are adapted to permit expansibility of the bag so as to provide sufficient spaciousness to eliminate forceful impingement of the urine stream against section 13, to reduce splash-back.

From the description given above, it will be appreciated that I have provided a urine collecting receptacle which may be easily applied to the back of a mare and conveniently adjusted into position so as to fit in a manner conforming to the hind leg and vulva structure for the purpose of retrieving substantially all urine excretion in an uncontaminated condition.

I believe that my invention is capable of considerable modification without departing from the spirit thereof, and I do not seek to be bound by the specific embodiment hereinabove illustrated except as set forth in the appended claims.

Having thus described my invention, I claim:

1. In a device for collecting the urine of mares, a receptacle comprising front and rear wall sections of freely collapsible sheet material secured to each other at lateral edges thereof and tapering downwardly to terminate in a spout-like outlet, the upper edge of said front wall section terminating below the top of said rear wall section defining an open inlet therebetween, said edge extending forward in an upward and slanting path so as to substantially encompass the vulva of a mare, and a relatively rigid metallic screen substantially covering said open inlet and secured peripherally to said edge and said rear wall section to support said open inlet against collapse and maintain the vulva-encompassing contours thereof, said screen having a shape and surface curvature corresponding with the contour of said edge.

2. In a device as set forth in claim 1 wherein said rear section is provided with foldable gores lying substantially above the upper edge of said front wall section whereby said receptacle is expanded upon unfolding of said gores to reduce the force of impingement of fluid against said rear section.

3. In a device as set forth in claim 1 including reinforcement means comprising a wire rod secured to said rear section and extending laterally between the edges thereof, the ends of said rod

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at said edges extending angularly partially along respective edges and being secured thereto.

4. In a device as set forth in claim 1 including reinforcement means comprising spaced wire rods secured to said rear section and extending laterally from edge to edge thereof.

5. In a device as set forth in claim 1 including reinforcement means comprising a wire rod secured to said rear section and extending laterally between the edges thereof, the ends of said rod at said edges extending angularly partially along respective edges, said rod being sheathed within flexible piping secured to said section and to the edges thereof.

6. In a device for collecting the urine of mares, a receptacle comprising, front and rear wall sections of freely collapsible rubberized sheet material secured to each other at the lateral edges thereof and tapering downwardly to terminate in a spout-like outlet, said front wall section terminating below the top of said rear wall section to define a substantially forwardly disposed open inlet below the top of said rear wall, said open inlet having a lip extending forward of said rear wall in an upward and slanting path shaped to conform to the contour of a mare just below the vulva and partially around the hind legs thereof to substantially encompass the vulva, a relatively rigid metallic screen substantially covering said open inlet and secured peripherally to said lip to support said open inlet against collapse and maintain the vulva-encompassing contours thereof, said screen having a shape and surface curvature corresponding with the contours of said lip, a pair of wire reenforcing rods secured to said rear wall and extending transversely across said rear wall at the top and in alignment with the forwardly projecting portion of said lip, the ends of said rods having downwardly bent ends secured to the lateral edges of said sections, and foldable gores formed in said rear section between said wire reenforcing rods to expand said receptacle upon unfolding of said gores and reduce the force of impingement of fluid against said rear wall.

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