May 18, 1954 E. C. HAGAR 2,678,631

ANIMAL HOLDING STOCK

Filed July 9, 1951 3 Sheets-Sheet 1

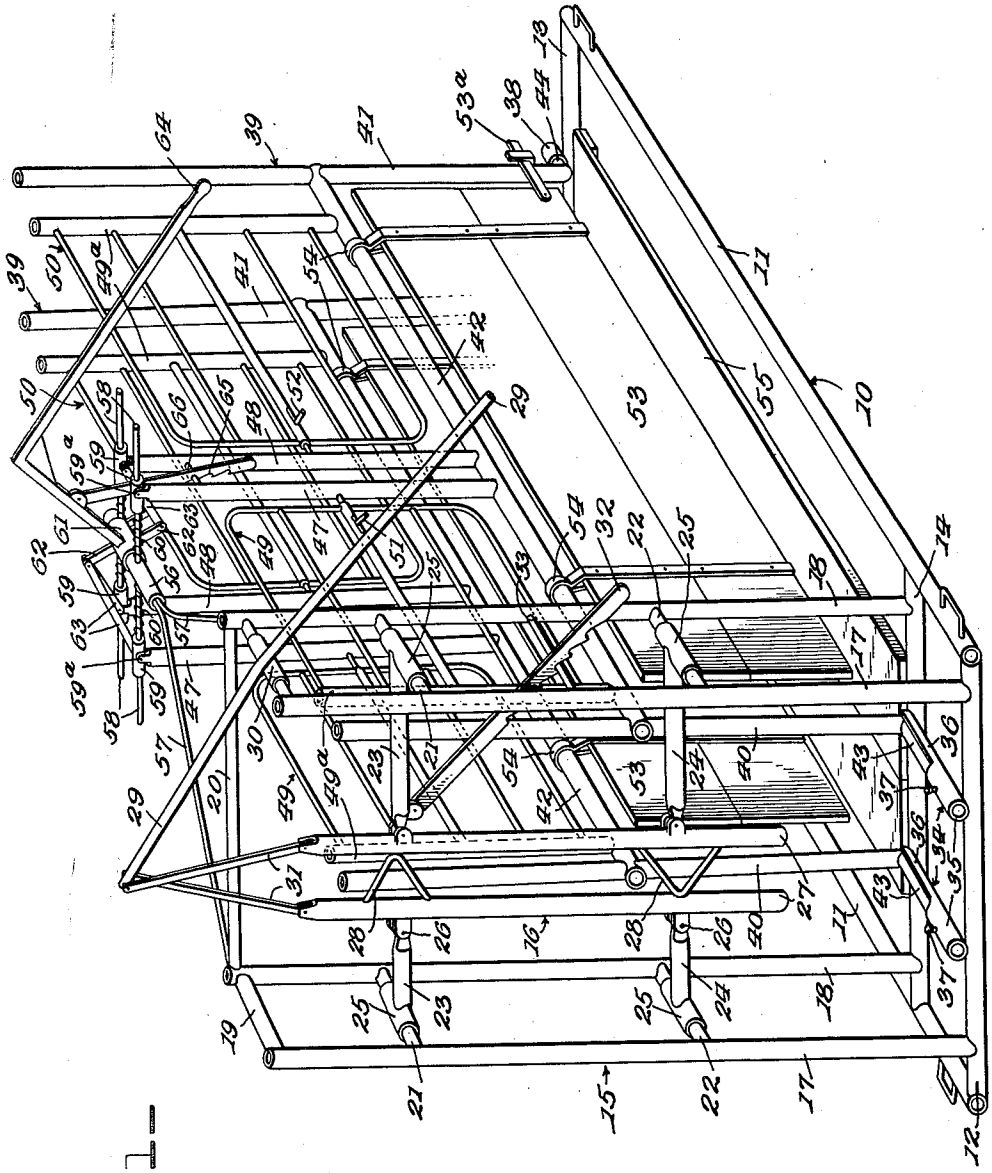


FIG. 1

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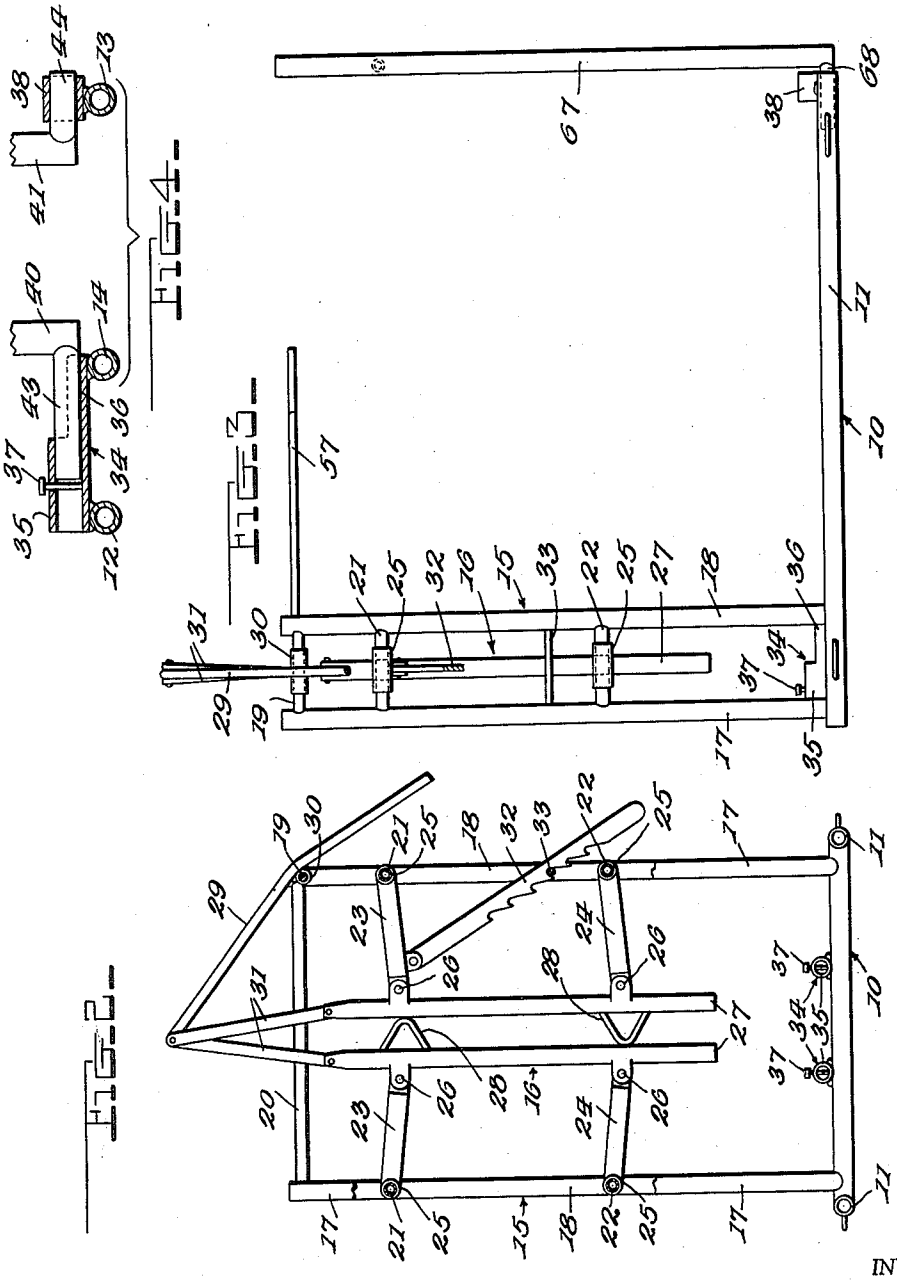
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ATTORNEYS.

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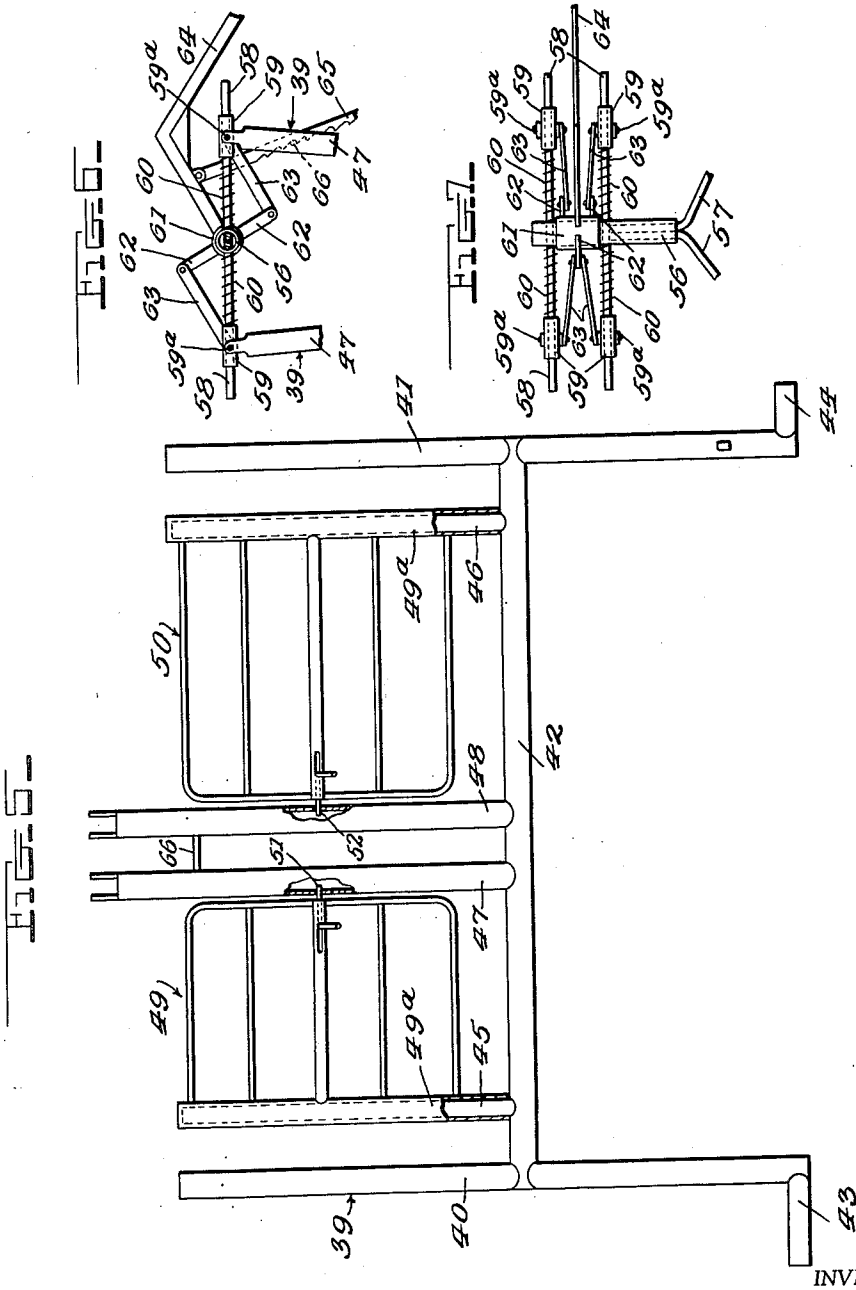


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ANIMAL HOLDING STOCK

Elbert C. Hagar, Rogers County, Okla.

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3 Claims. (Cl. 119—99)

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This invention relates to a novel stock for use at the end of a chute or the outlet of a corral, to successively receive cattle or horses while performing a branding, dehorning, vaccinating, or other operation.

The stock comprises, generally speaking, a base frame, a stanchion frame at one end of said base frame, a neck-holding stanchion mounted on said stanchion frame, two side-squeeze frames mounted on said base frame, and hand-operated means for closing said stanchion and inwardly swinging said side-squeeze frames.

One object of the invention is to provide a simple, inexpensive, and efficient structure which will reduce materially the number of men usually required for immobilizing animals while performing one operation or another upon them.

Another object of the invention is to provide a novel construction which may be manufactured primarily from lengths of pipe and rod welded where necessary.

Yet another object of the invention is to provide novel and advantageous construction for the side-squeeze frame, including convenient gates for giving access to the desired portion or portions of the animals.

A further object is to make novel provision whereby the side-squeeze frames may be readily removed from the base frame when the device is to be trucked from one place to another.

A still further object of the invention is to removably mount the above-mentioned gates in a novel manner, to further facilitate moving of the device from place to place.

Another object is to make novel provision for operating the side-squeeze frames and the stanchion.

Yet another object is to provide a novel self-opening stanchion structure.

With the above and other objects in view that will become apparent as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings, and claimed.

In the drawings:

Figure 1 is a perspective view somewhat distorted for general illustration,

Figure 2 is a front end elevation, partly broken away and in section, showing the stanchion frame, the stanchion and the base frame, the side-squeeze frames being removed,

Figure 3 is a side elevation of the elements shown in Figure 2,

Figure 4 is a detail sectional view, showing the

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means for removably mounting the side-squeeze frames on the base frame,

Figure 5 is a side elevation, partly in section, showing one of the side-squeeze frames, the lower gate being removed,

Figure 6 is a fragmentary front elevation showing the operating means for the side-squeeze frames, and

Figure 7 is a top view of the elements shown in Figure 6.

A preferred construction has been shown and will be rather specifically described, but attention is invited to the possibility of making variations.

A horizontal rectangular base frame 10 is provided, preferably formed from lengths of pipe welded together. This base frame comprises two parallel side bars 11, a front end bar 12, a rear end bar 13, and a transverse bar 14 spaced rearwardly from said front end bar 12. All of the bars 12, 13, and 14 are welded to the side bars 11.

The bars 12 and 14 support a stanchion frame 15 upon which a stanchion 16 is mounted for engagement with an animal's neck. The frame 15 is preferably formed from lengths of pipe welded together, and said frame 15 includes two front standards 17 welded to the end portions of the bar 12, and two rear standards 18 welded to the end portions of the bar 14. The upper ends of the standards 17 are connected with the upper ends of the standards 18 by means of short bars 19 welded thereto, and the upper ends of said standards 18 are connected with each other by a transverse bar 20. Short, upper and lower stanchion mounting bars 21 and 22 extend rearwardly from the standards 17 to the standards 18 and are welded in place. Upper and lower stanchion arms 23 and 24 are pivotally mounted for vertical swinging upon the upper and lower bars 21 and 22, respectively, the pivotal connections between said arms and bars being preferably established by providing the outer ends of said arms with sleeves 25 surrounding said bars. The inner ends of the arms 23 and 24 are pivoted at 26 to a pair of vertical stanchion bars 27 to engage opposite sides of an animal's neck. These stanchion bars 27 have suitable inwardly projecting abutments 28 to extend over and under the animal's neck.

A stanchion opening and closing lever 29 is fulcrumed at 30 on one of the bars 19, the inner end of said lever being connected with the upper ends of the stanchion bars 27 by links 31. When the stanchion bars 27 and arms 23, 24 are allowed to lower by gravity, said stanchion bars 27 oc-

cupy such spaced relation as to allow an animal's head to readily pass between them. However, when the lever 29 is operated to move said elements 27, 23, and 24 upwardly, the stanchion bars 27 engage the animal's neck. For holding the bars 27 raised, a toothed latch bar 32 is pivoted to one of the arms 23 and is engageable with a rod 33 which extends between one of the standards 17 and the associated standard 18. It is of course necessary to release this latch bar 32 to allow the stanchion bars 27 to drop to released position.

Two laterally spaced elongated bearing members 34 extend between the base frame bars 12 and 14 and are welded thereto. Each of these bearing members 34 has a tubular front portion 35 and a channel-shaped rear portion 36. Removable pins 37 extend through openings between the ends of the bearing portions 35. Short bearings 38 are welded to the rear base frame bar 13 in alinement with the bearing members 34. These bearings 34 and 38 are instrumental in detachably mounting two side-squeeze frames 39 upon the base frame 10, to engage opposite sides of an animal whose neck is held by the stanchion 16.

Each side-squeeze frame 39 is formed to a large extent from lengths of pipe and rods welded together where required as illustrated in Figures 1 and 5. Each of these frames includes a front vertical end bar 40, a rear vertical end bar 41, and an elevated longitudinal bar 42 extending between said front and rear end bars and welded thereto. The lower end of each front end bar 40 is provided with a forwardly projecting elongated trunnion 43, and the lower end of each rear end bar 41 is provided with a short rearwardly projecting trunnion 44. The trunnions 44 are received in the rear bearings 38 of the base frame 10. The long trunnions 43 lie in the channels 36 of the front bearing members 34 and extend forwardly into the tubular bearing portions 35 of said members 34, the front ends of said long trunnions being disposed against the pins 37. When these pins are removed, the side-squeeze frames 39 may be forwardly shifted until the rear trunnions 44 are free of the bearings 38. Then said frames may be rearwardly moved to withdraw the front trunnions 43 from the bearing portions 35. Thus, the side-squeeze frames 39 may be easily detached from the base frame 10 to allow easier handling of the structure when it is to be hauled from one place to another. Normally, the bearings and trunnions mount the side-squeeze frames 39 for inward and outward swinging movement, as required.

When an animal is to be driven or led into the stock, the two side-squeeze frames 39 occupy outwardly swung positions, but said frames are swung inwardly to operative positions as soon as the animal's neck is held in the stanchion 16. Novel means is provided for swinging the frames 39 inwardly and outwardly. This means, however, can best be described after giving a more detailed description of said frames 39 and this course will therefore be followed.

Each frame 39 includes a front gate post 45 and a rear gate post 46 (see Figure 5), said gate posts being welded to the longitudinal bar 42 and projecting upwardly therefrom near the end bars 40 and 41, respectively. There are also two other gate posts 47 and 48 welded to and projecting upwardly from the intermediate portion of each bar 42. A front gate 49 is mounted on the post 45, and a rear gate 50 is mounted on the post 46, each gate preferably having a sleeve 49a removably surrounding the respective post. Suitable latches 51 and 52 normally connect the gates 49 and 50 respectively, with the inner posts 47 and 48, and by releasing the latch of either gate the latter may be swung outwardly to give unobstructed access to the desired portion of the animal held within the stock.

A third gate 53 formed principally from wood, is preferably provided under the bar 42 of each frame 39, said gate being hung from said bar as shown at 54 and having a latch 53a (Figure 1). As the frames 39 are swung outwardly to animal-receiving position, the gates 53 guide the ingoing animal and these gates may be swung outwardly to aid in performing certain operations. If desired, a wooden floor 55 may be provided for the animal to stand upon while in the stock. This floor may well be laid upon the ground but it could of course be attached to the base frame 10.

Between the upper ends of the inner gate posts 47, 48 of one of the side-squeeze frames 39 and the upper ends of the corresponding gate posts of the other of said side-squeeze frames, there is a fixed horizontal stub shaft 56 which is preferably a length of pipe welded to two rods 57 which converge rearwardly from the upper ends of the standards 18 of the stanchion frame 15 as illustrated in Figures 1, 6, and 7. The front ends of the rods 57 are welded to the standards 18, and the rear ends of said rods extend into the shaft 56 and are welded thereto, said rods thus fixedly mounting said shaft in a horizontal position in which it extends longitudinally of the stock.

Horizontal rods 58 are welded to the stub shaft 56 and project laterally therefrom over the posts 47 and 48. These posts have sleeves 59 detachably pivoted at 59a to their upper ends, said sleeves slidably surrounding the rods 58. Coiled compression springs 60 surround the rods 58 and exert an outward force on the sleeves 59, thereby tending to swing the side-squeeze frames 39 outwardly to animal-receiving position.

An actuating sleeve 61 rotatably surrounds the stub shaft 56 and has crank arms 62 linked at 63 to the sleeve 59. An operating arm 64 is welded to the sleeve 61 and extends to the same side of the stock as the stanchion-closing lever 29, said arm 64 being operable to swing the side-squeeze frames 39 inwardly to animal-holding position. A suitable toothed latch 65 is pivoted to the operating arm 64 and is engageable with a rod 66 welded to the gate posts 47 and 48 of one of the frames 39, to hold said arm 64 until the animal is to be released from the stock.

If desired, a suitable tail gate 67 may be provided for connection with the base frame 10, as shown in Figure 3, said gate preferably having stubs 68 receivable in the rear ends of the tubular side bars 11.

The invention is used at the end of a stock chute or the exit from a corral. Normally, the side-squeeze frames occupy outwardly swung positions and the stanchion 16 is open. When an animal enters the stock from the rear, as soon as it has progressed sufficiently to permit the stanchion 16 to be engaged with its neck, said stanchion is closed by pulling down on the lever 29. The side-squeeze frames 39 are then swung inwardly by pulling down on the arm 64. The latches 32 and 65 hold the stanchion and side-squeeze frames in animal holding position and thus the man who operated the lever 29 and arm

64 is free to aid in branding, dehorning, or otherwise operating upon the animal. When the operation is completed, release of the latches allows the stanchion 16 to open and allows the springs 60 to again open the side-squeeze frames 39, placing the stock in readiness to receive the next animal. Obviously, any one, or more, of the gates 49, 50, 53 may be opened to give unobstructed access to desired portions of the animal, according to the work to be done.

When the device is to be moved from one place to another, the gates 49 and 50 may be easily lifted from the posts 45 and 46 and the side-squeeze frames 39 may be readily detached. These frames are freed from the base frame 10 in the manner above described, and they are freed from their operating means by disconnecting the upper ends of the posts 47, 48 from the sleeves 59.

From the foregoing, it will be seen that a novel and advantageous construction has been provided for attaining the desired ends, and while preferences have been disclosed, attention is again invited to the possibility of making variations within the scope of the invention as claimed.

What is claimed as new is:

1. In an animal holding stock, a base frame having parallel side bars, a front end bar, and a transverse bar behind said front end bar, said end and transverse bars being secured to said side bars, two front standards rising rigidly from the end portions of said front end bar, two rear standards rising rigidly from the end portions of said transverse bar, short upper and lower bars extending from said front standards to said rear standards, and secured to said front and rear standards, vertically swingable arms mounted on said short upper and lower bars, vertical neck-engaging stanchion bars pivoted to the inner ends of said arms to separate when said arms swing in one direction and vice versa, and operating means whereby said stanchion bars and arms may be swung upwardly and downwardly, said operating means comprising a lever linked at one end to the upper ends of said stanchion bars, one additional short bar upon which said lever is fulcrumed between its ends, a toothed latch bar pivoted to one of said arms adjacent its connection with a stanchion bar, and a second additional short bar cooperable with said latch bar to hold said lever, said additional short bars extending between one of said front standards and one of said rear standards and being secured to both of these standards.

2. In an animal holding stock, a base frame comprising side bars and front and rear end bars, a transverse bar extending between the side bars adjacent and rearwardly of the front bar, a pair of upstanding bars rising from the ends of the front and transverse bars, pairs of upper and lower arms pivotally mounted at their outer ends on bearings between the upstanding bars at opposite sides of the frame, a vertical stanchion bar pivotally connected to the inner adjacent ends of each pair of the pivoted arms, a lever pivoted on a bearing between the upper ends of the upstanding bars at one side of the frame with one end connected to the upper ends of the stanchion bars and latch means for holding the stanchion bars in elevated animal neck gripping position carried by one of the upper pivoted arms and the last named pair of upstanding bars.

3. In an animal holding stock, a base frame comprising side bars and front and rear end bars, a transverse bar extending between the side bars adjacent and rearwardly of the front bar, a pair of upstanding bars rising from the ends of the front and transverse bars, pairs of upper and lower arms pivotally mounted at their outer ends on bearings between the upstanding bars at opposite sides of the frame, a vertical stanchion bar pivotally connected to the inner adjacent ends of each pair of the pivoted arms, a lever pivoted on a bearing between the upper ends of the upstanding bars at one side of the frame with one end connected to the upper ends of the stanchion bars and latch means for holding the stanchion bars in elevated animal neck gripping position carried by one of the upper pivoted arms and the last named pair of upstanding bars, and vertically spaced coacting abutments on the stanchion bars for positioning above and below the neck of an animal when the stanchion bars are in operative position.

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