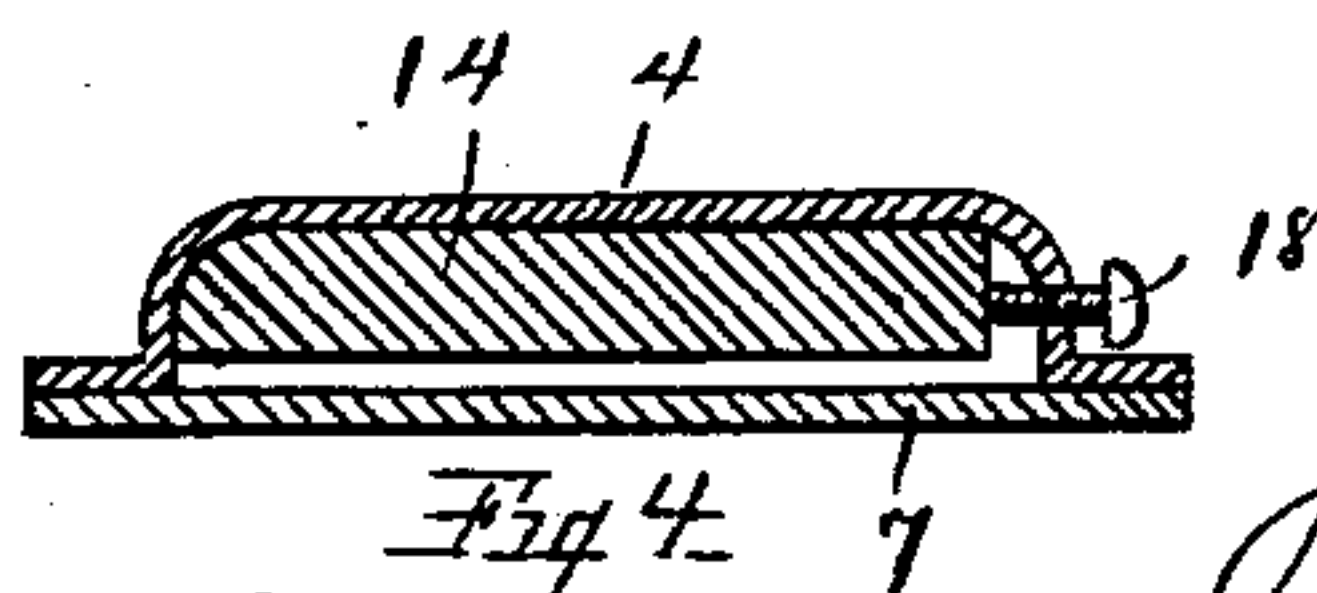
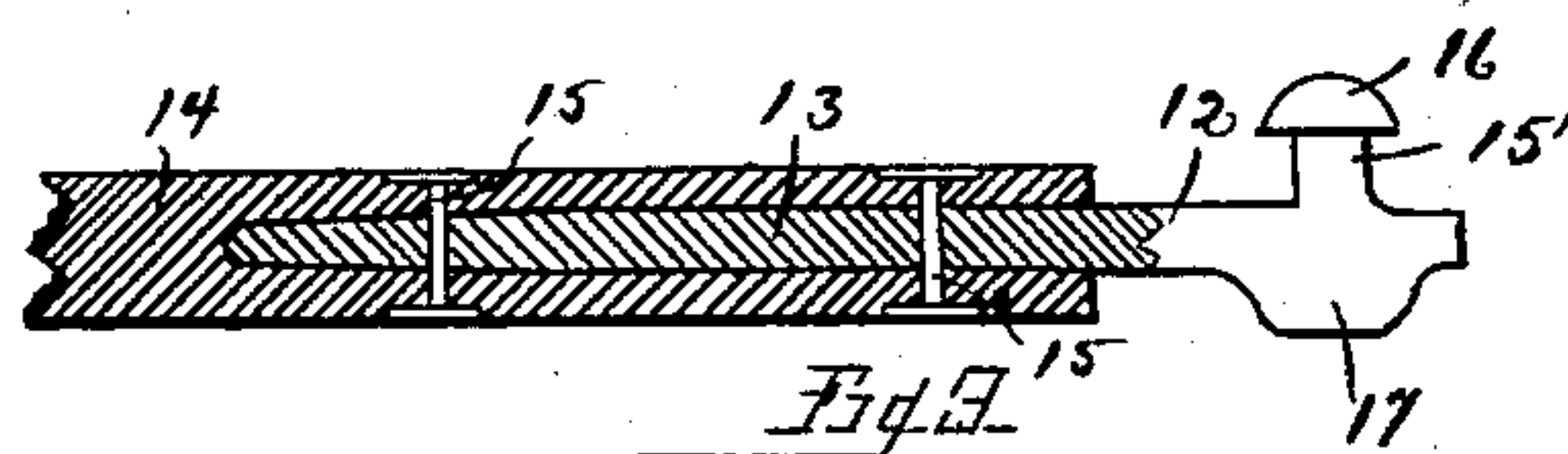
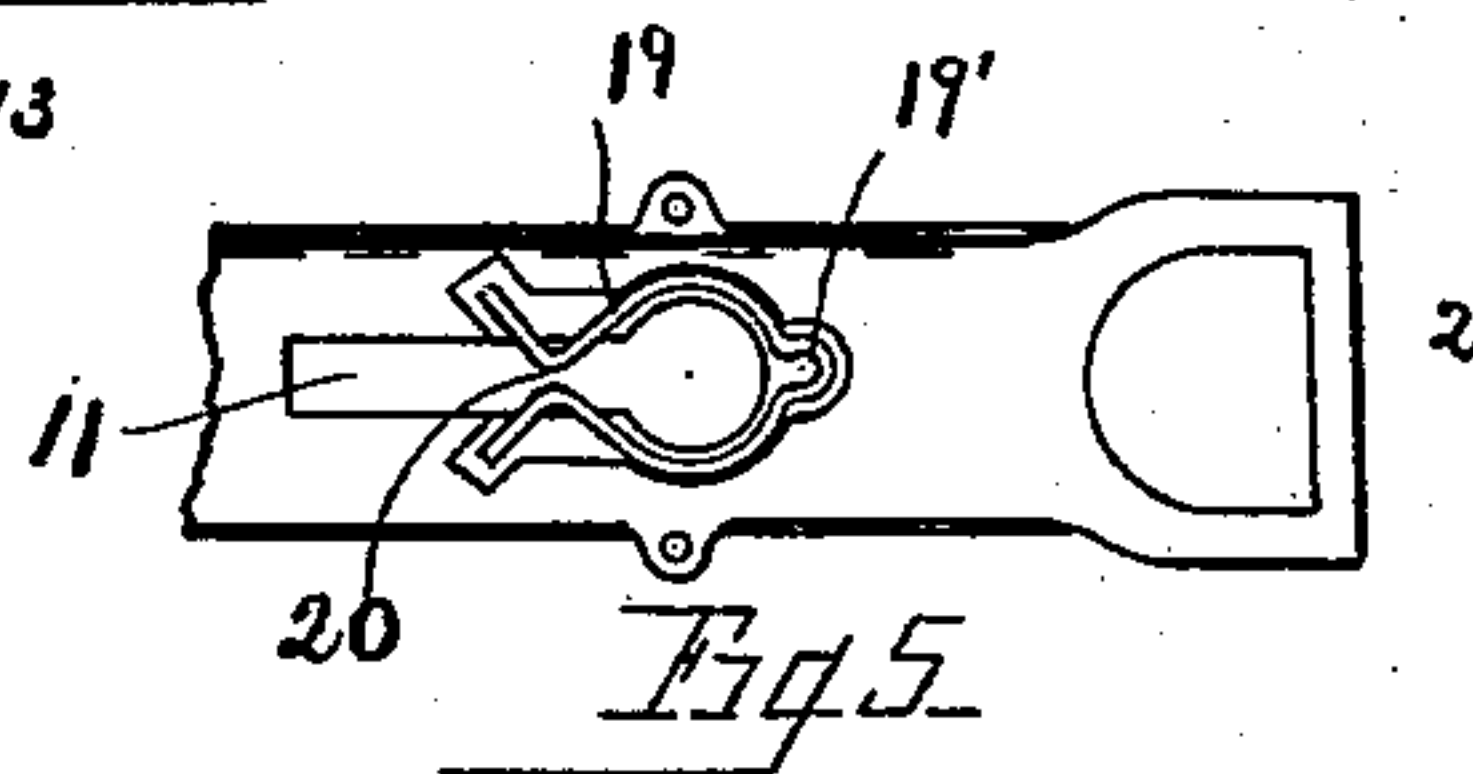
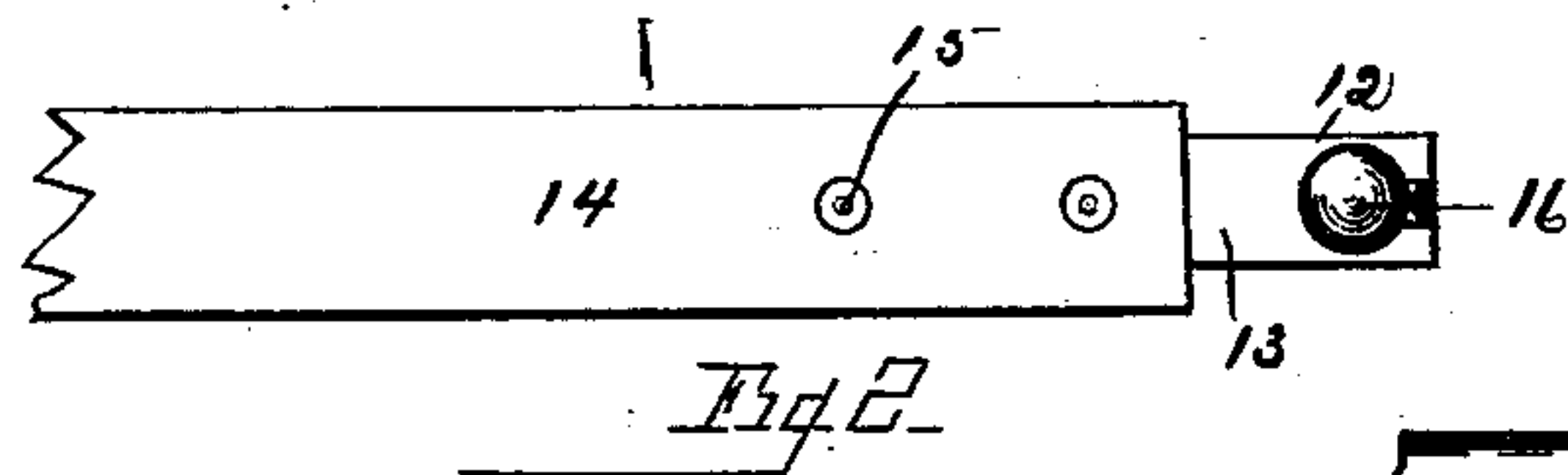
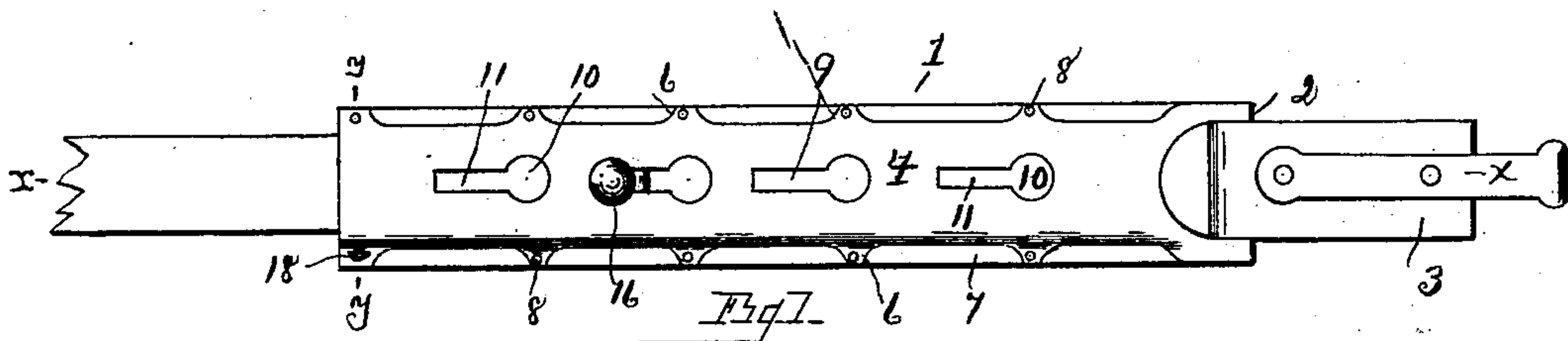


(No Model.)

J. S. GILMAN.  
HAME TUG FASTENER.

No. 563,159.

Patented June 30, 1896.



WITNESSES

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Atty

# UNITED STATES PATENT OFFICE.

JAMES S. GILMAN, OF TECUMSEH, MICHIGAN.

## HAME-TUG FASTENER.

SPECIFICATION forming part of Letters Patent No. 563,159, dated June 30, 1896.

Application filed September 14, 1891. Renewed May 2, 1894. Serial No. 509,848. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES S. GILMAN, of Tecumseh, county of Lenawee, and State of Michigan, have invented certain new and  
5 useful Improvements in an Adjustable Hame-Tug Fastener; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable  
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to an adjustable  
15 hame-tug fastener, and has for its object to provide a neat and inexpensive connection between the hame and the tug, whereby the length of the latter can be readily adjusted to fit the harness to horses of varying sizes,  
20 or, to thills or poles of different lengths, with means for securing the adjustable parts in place.

The invention consists in the parts and combination of parts hereinafter described  
25 and claimed.

Figure 1 is a plan view of a hame-tug and tug-iron in an adjusted position. Fig. 2 is a plan view of the tug-iron connected with the tug. Fig. 3 is a side elevation of the tug-iron, the shank and tug being shown in section. Fig. 4 is a transverse section on lines  
30 *y y*, Fig. 1, showing the screw tapped through the casing and bearing upon the tug to hold the same from longitudinal movement within the casing. Fig. 5 is an inside plan view of the tug-fastener, the backing being removed, showing a preferred form of attachment for securing the stud in place.

1 designates the casing formed with a loop  
40 2 at one end for connection with the portion of the tug 3, which is attached to the same, and a face-plate 4, from which depends a plurality of hangers 5, having angular perforated plates 6, to which a backing of leather  
45 or of thin metal 7 is secured by means of rivets 8. By this construction there is formed a casing for the reception of the tug and tug-iron to be presently described.

Face-plate 4 is formed with a series of  
50 openings 9 of a peculiar formation, there being a circular portion 10, and an elongated

rectangular portion 11 communicating therewith.

12 designates a tug-iron formed with a shank 13, which is secured in the end of the  
55 tug 14, by means of rivets 15, passed through the tug and shank, as shown in Fig. 4, the opposite end of the tug-iron being formed with a stud 15', having a head 16, the lower flat surface of which is upon a line with the  
60 outer surface of face-plate 4, when the tug bears upon the inner side of the plate, and the greatest diameter of the head is equal to the inner circumference of the circular portion  
10 of opening 9, to allow the same to closely  
65 pass through the opening, the studs 15' being of a size to snugly fit within the rectangular opening 11.

18 designates a screw tapped through the casing with one end bearing against the  
70 side of the tug, to hold the same from movement within the casing when the tug becomes slack by reason of the draft thereon being relieved when the vehicle or other object to which the team is hitched is moving by  
75 gravity. This arrangement subserves a valuable purpose in the heavier class of harness wherein the tugs are of a stiffness to cause them to move forward in a rectilinear line, when tension is removed, as the enlargement  
80 17 will cause the tug to bear upon the under side of the face-plate with sufficient friction to prevent a movement within the casing of a degree to cause the stud to pass out of the elongated slot and allow the head to pass out  
85 of the circular opening, thereby detaching the parts.

In Fig. 6 I have shown a preferred form of fastening in which the casing is formed with a depression around the opening to accommodate a spring 19, which is secured at one end,  
90 as at 19', by soldering or in any other manner, and having the parts 20 extending normally into the slot 11 to contact with the stud 15' when it is inserted, the spring allowing it to  
95 pass and then acting to hold the stud in place against back pressure, as before stated.

What I claim is—

A hame-tug fastener comprising a casing formed of a face-plate having hangers at  
100 right angles thereto and perforated lugs at right angles to the hangers, a backing of



yielding material secured to the lugs, key-  
hole-shaped slots in the face-plate, in combi-  
nation with a tug provided with a stud hav-  
ing a head adapted to enter the larger por-  
5 tion of the slots, the body of the stud being  
of a size to enter the slotted portion of the  
openings, devices for preventing backward  
movement of the tug in the casing, consist-  
ing of a spring surrounding the openings in  
10 the slots to engage the stud, and a screw in

one of the hangers which when screwed in-  
ward abuts against the side of the tug, sub-  
stantially as shown and described.

In testimony that I claim the foregoing as  
my own I hereby affix my signature in pres- 15  
ence of two witnesses.

JAMES S. GILMAN.

Witnesses:

CHARLES BURRIDGE,  
J. W. WIGHTMAN.