

G. L. KRINKE.
MAIL DELIVERING APPARATUS.
APPLICATION FILED AUG. 12, 1908.

919,438.

Patented Apr. 27, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

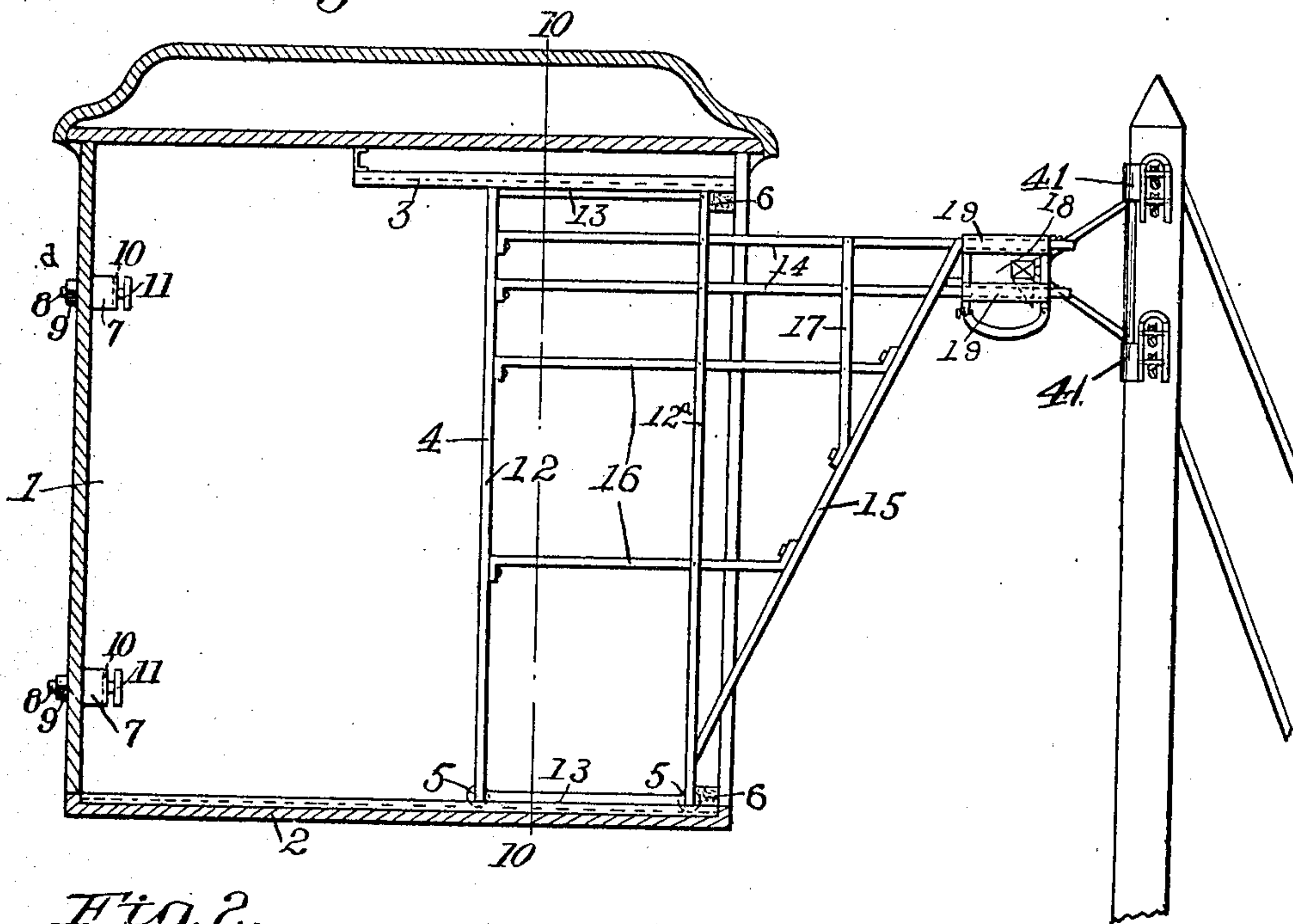


Fig. 2.

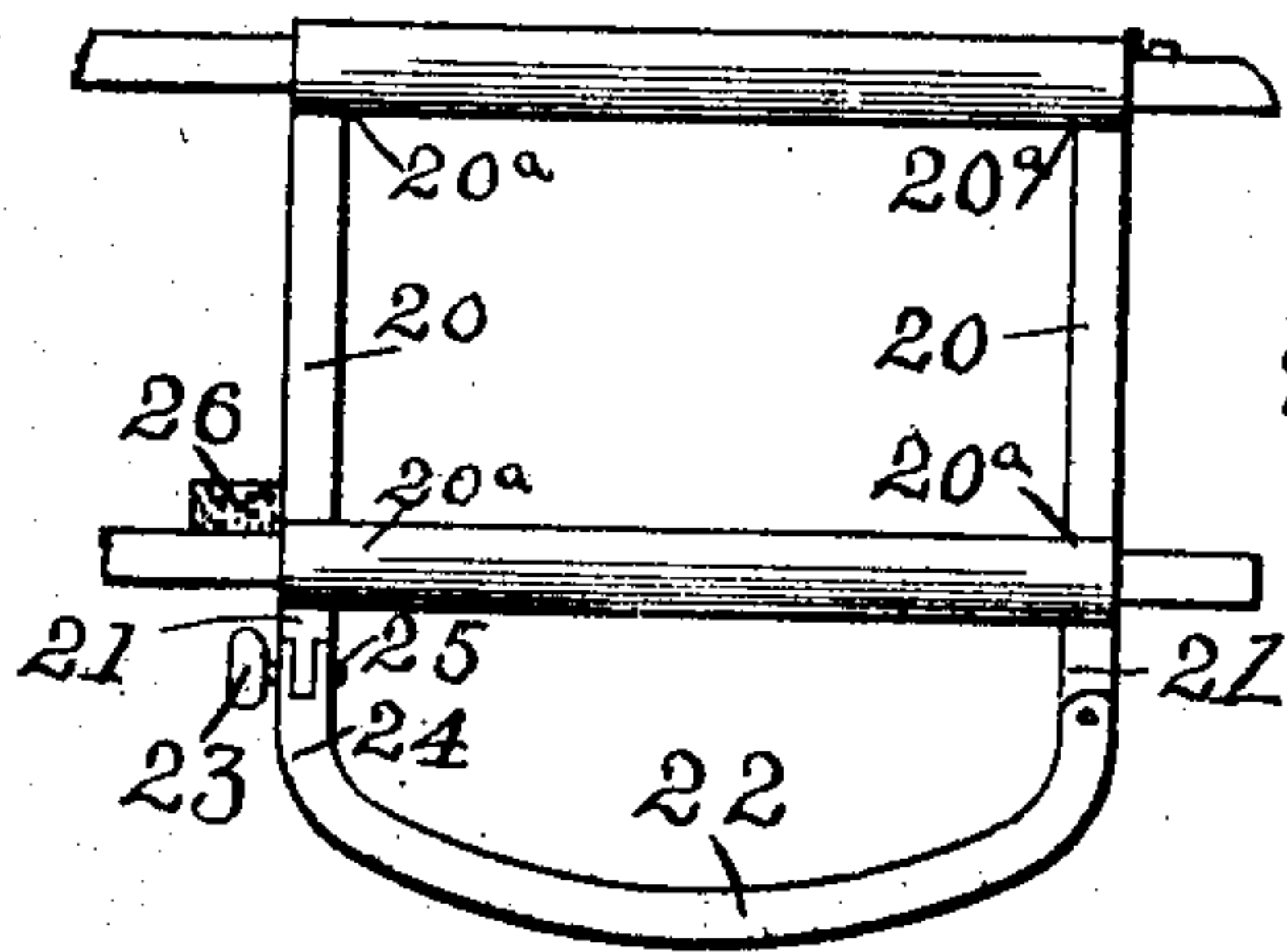


Fig. 3.

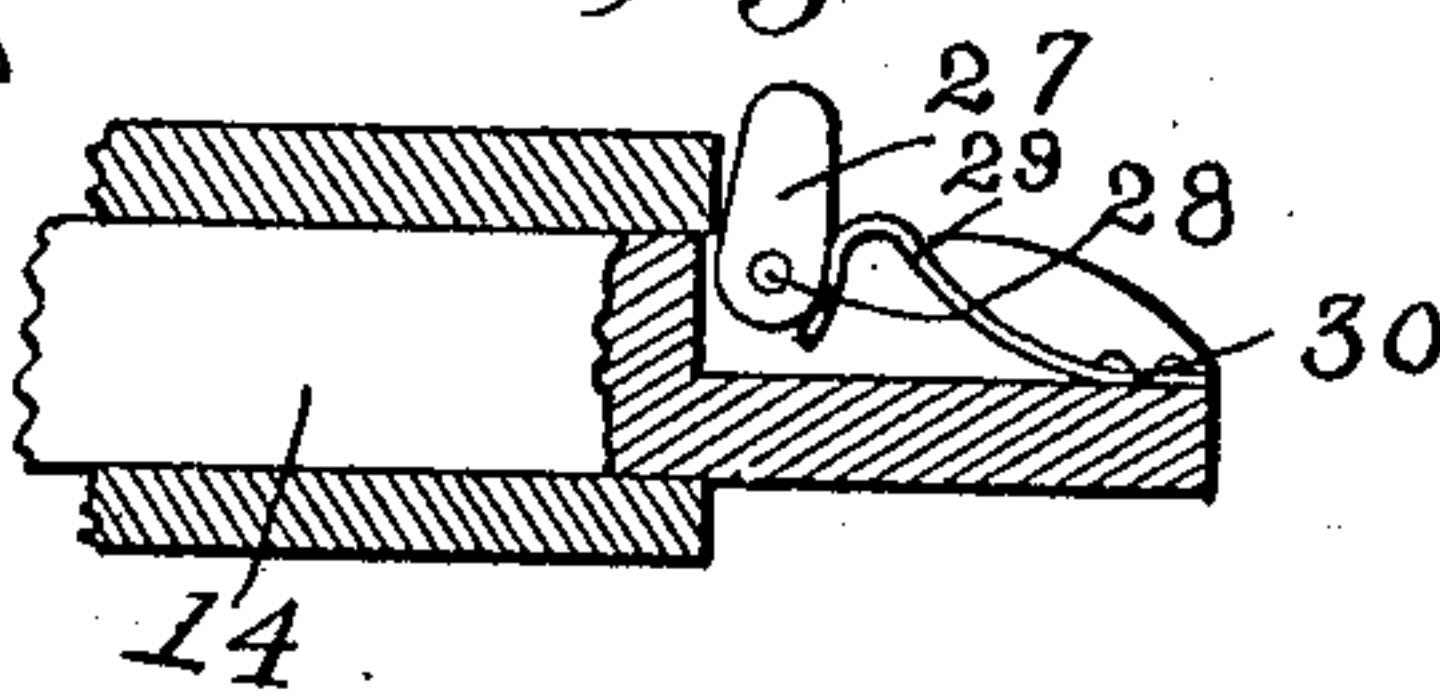


Fig. 4.

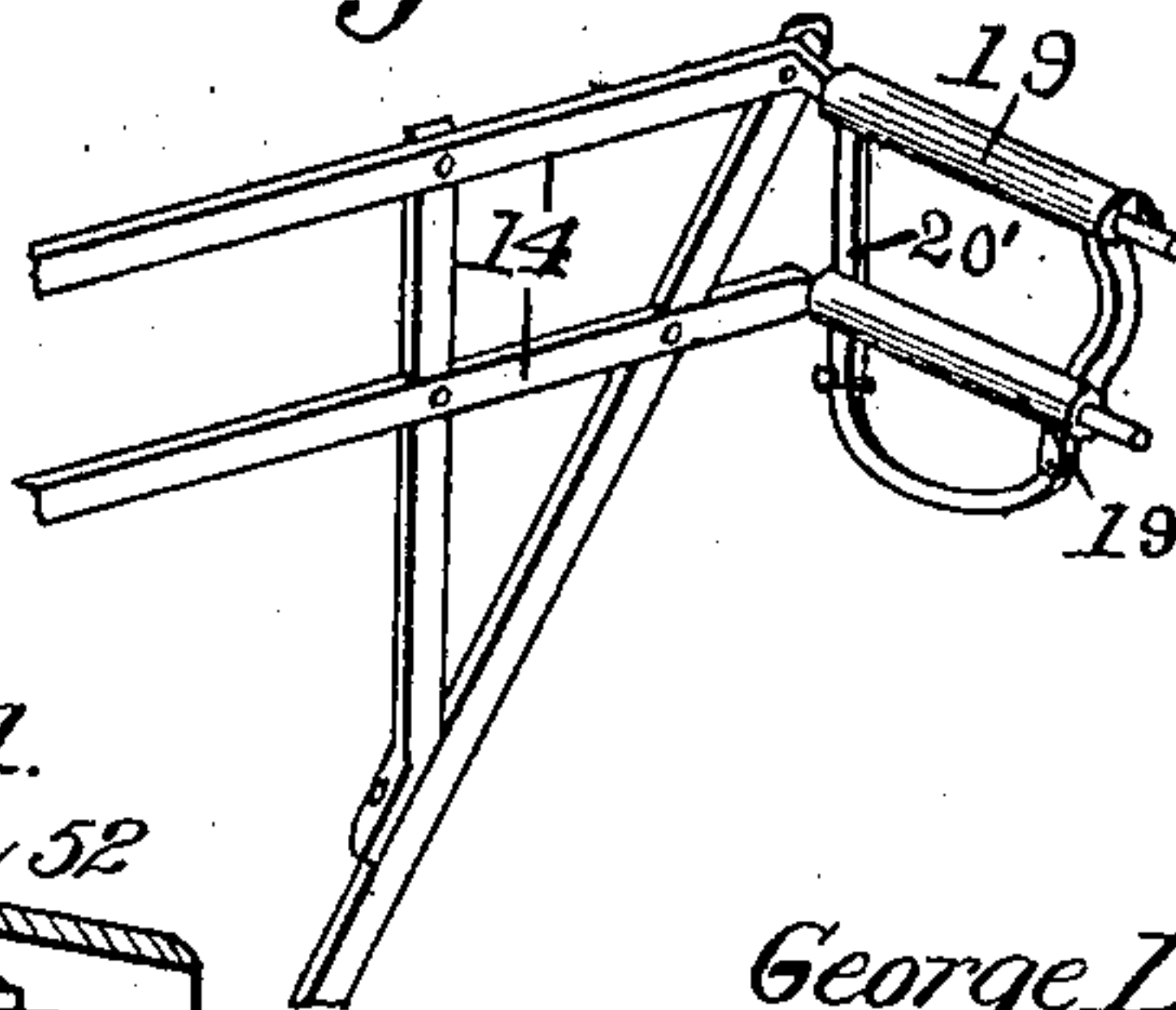


Fig. 9.

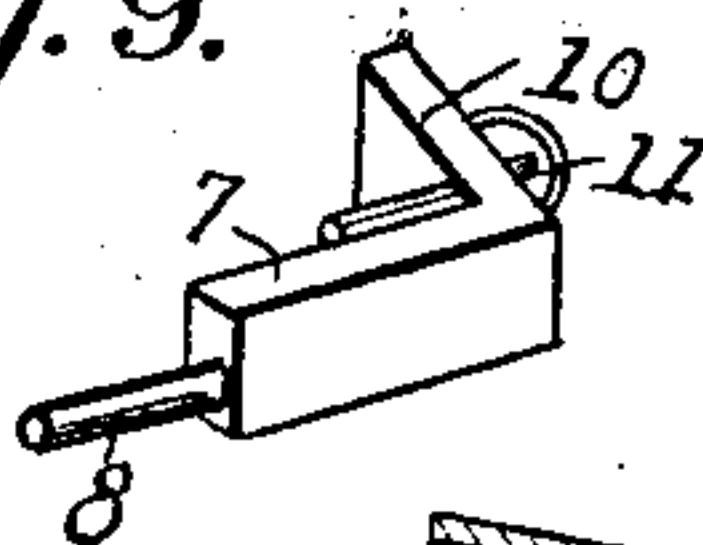
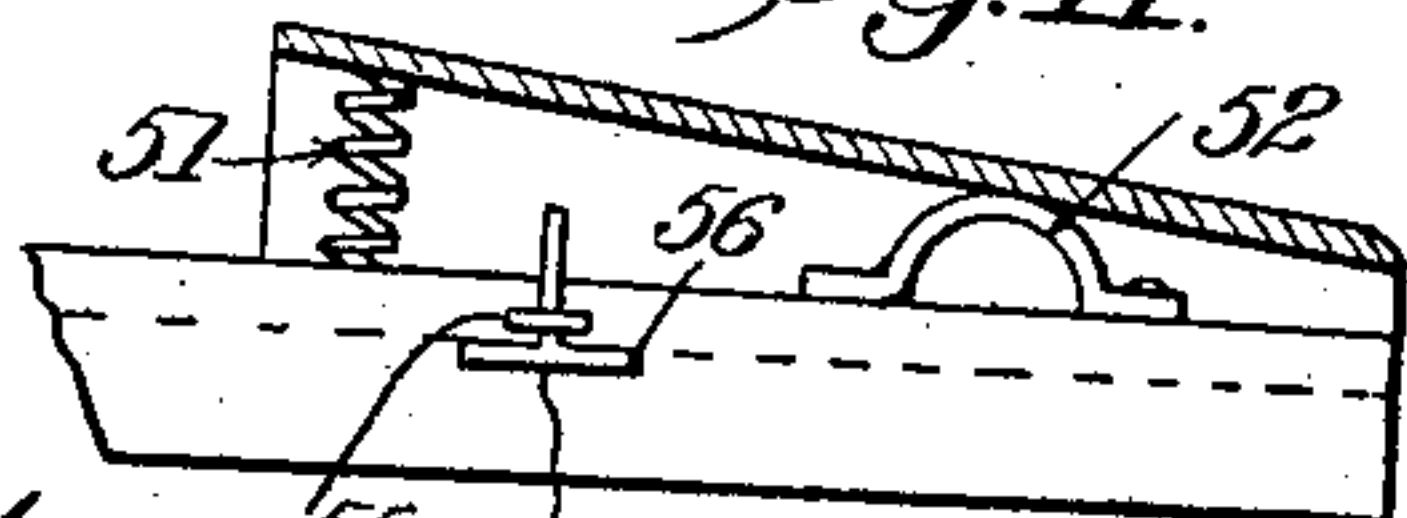


Fig. 11.



Witnesses

C. M. Walker,
J. L. M. Cathran.

Inventor

George L. Krinke

By

E. E. Vrooman,
his Attorney.

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2 SHEETS—SHEET 2.

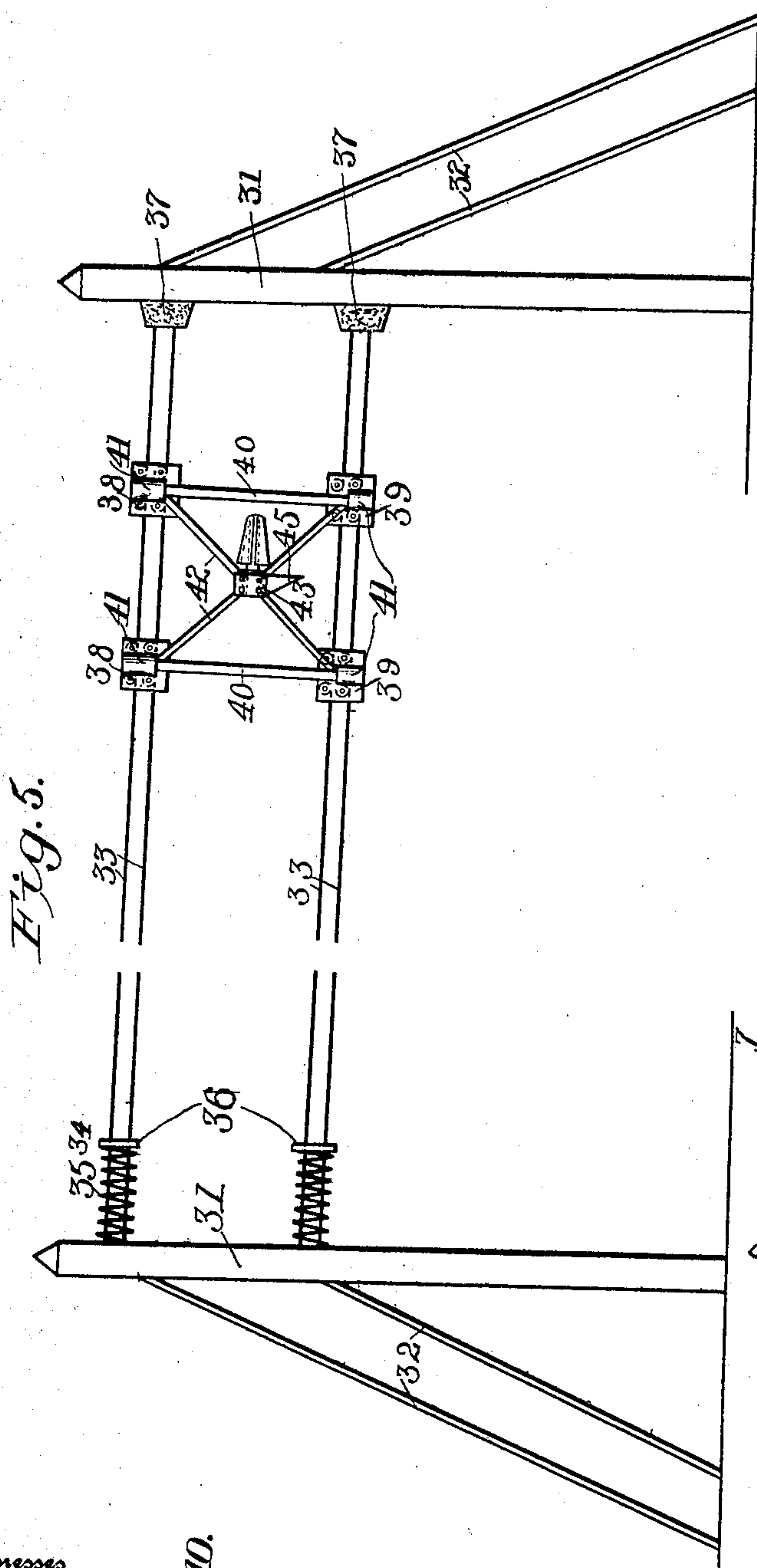


Fig. 5.

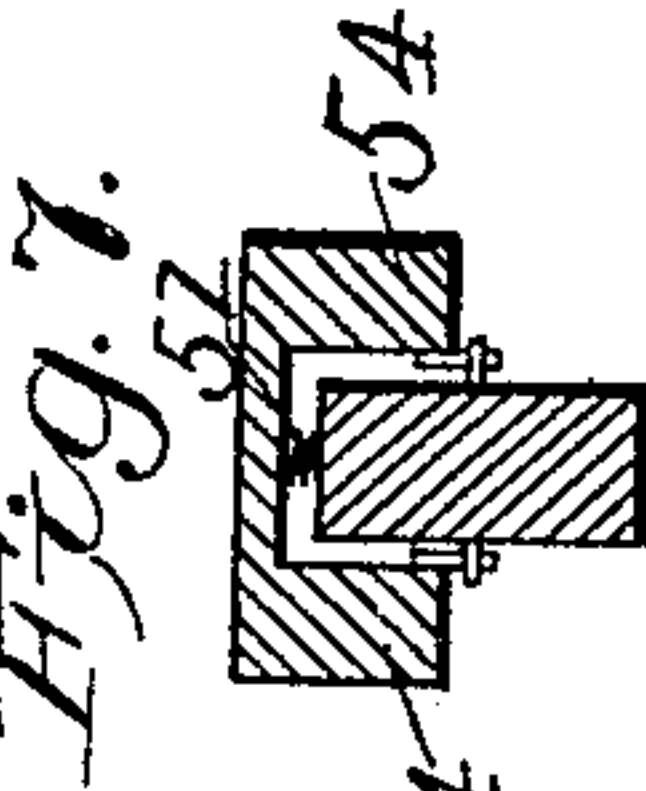
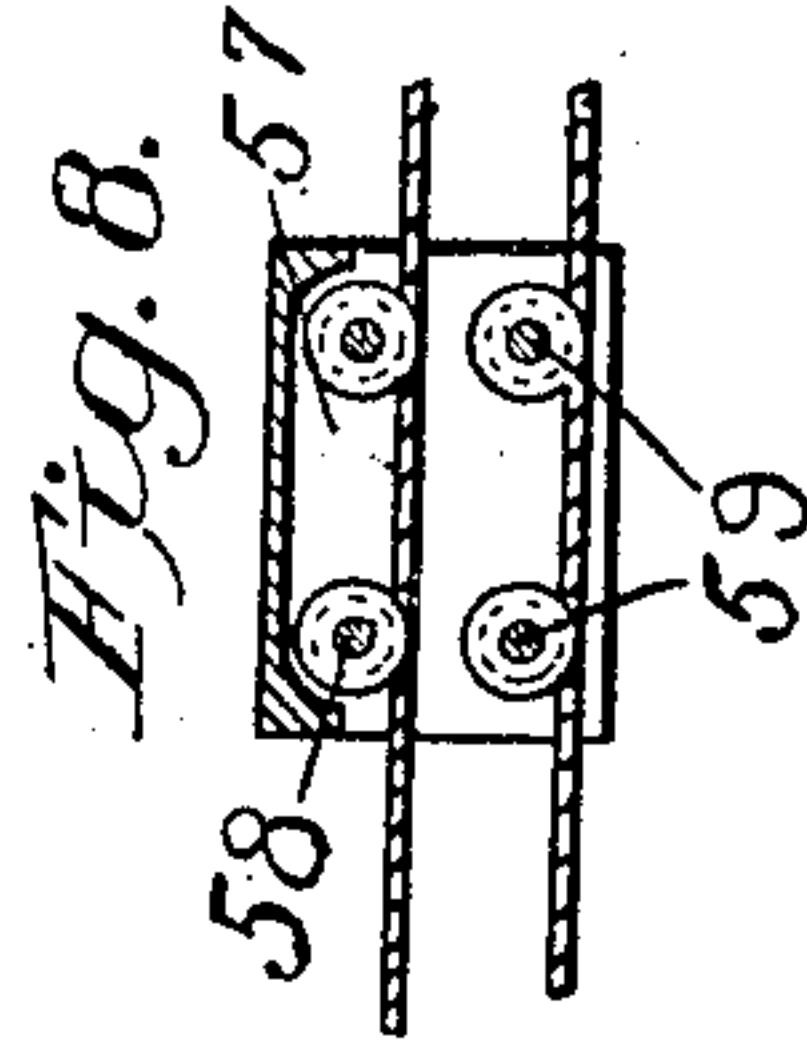


Fig. 7.

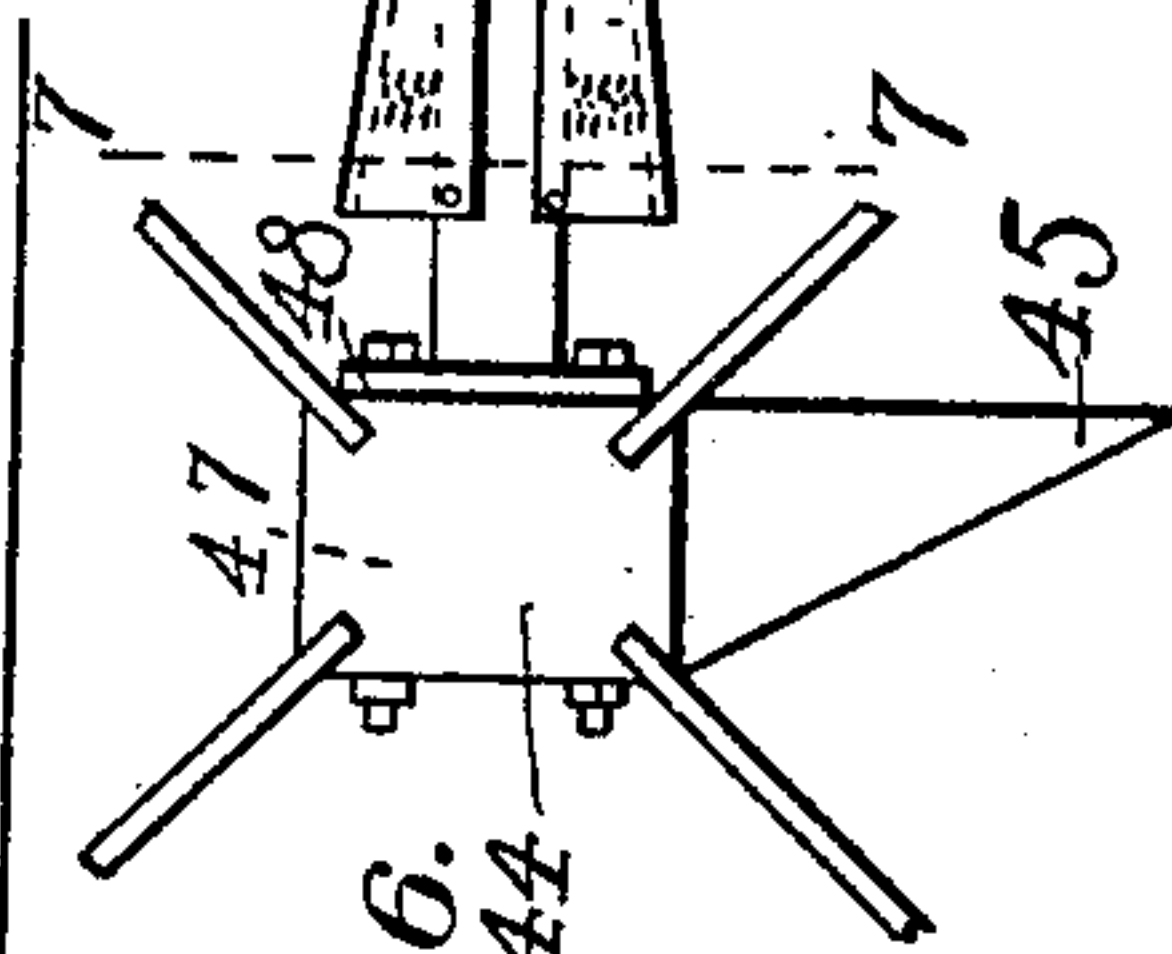


Fig. 6.

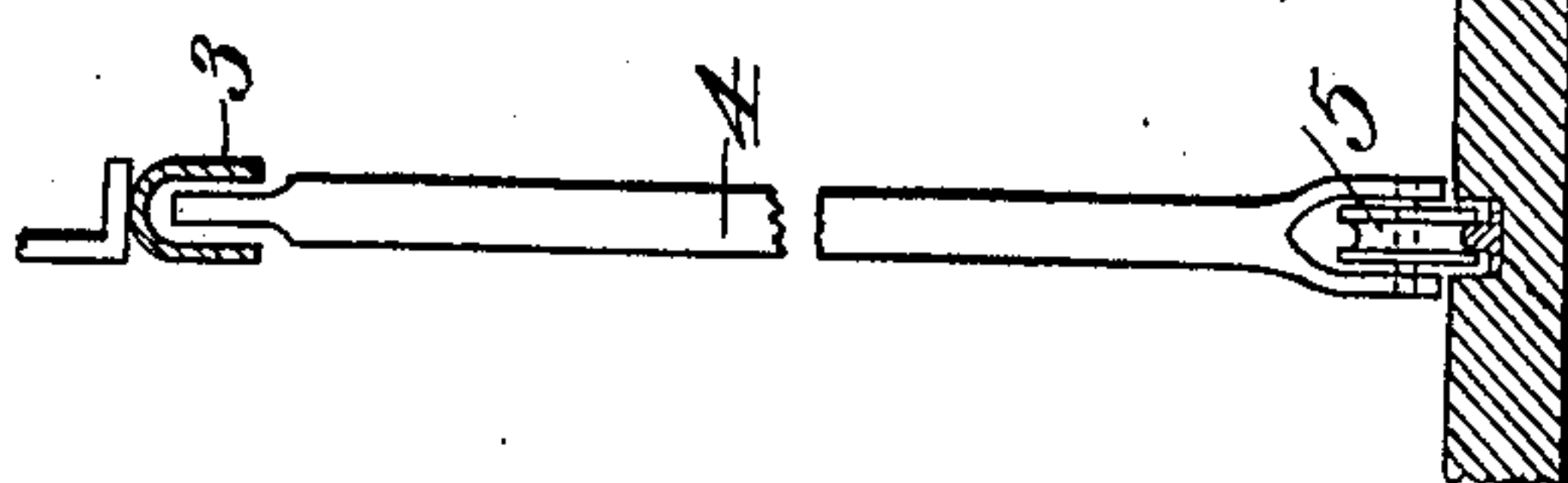


Fig. 10.

Witnesses
C. M. Walker.
J. W. L. M. Lathman.

Inventor

George L. Krinke

By
E. E. Vrooman,
his Attorney.

UNITED STATES PATENT OFFICE.

GEORGE L. KRINKE, OF MAZEPPA, MINNESOTA.

MAIL-DELIVERING APPARATUS.

No. 919,438.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed August 12, 1908. Serial No. 448,207.

To all whom it may concern:

Be it known that I, GEORGE L. KRINKE, a citizen of the United States, residing at Mazeppa, in the county of Wabasha and State of Minnesota, have invented certain new and useful Improvements in Mail-Delivering Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to a mail bag delivering and receiving apparatus, and has for its object the provision of means for facilitating the delivering of a mail bag from a fast moving train.

15 Another object of this invention is the production of a mail bag support which will more readily hold a mail bag in position to be delivered upon a mail bag receiving apparatus.

20 With these and other objects in view, this invention consists of certain novel constructions, combinations, and arrangement of parts, as will be hereinafter fully described and claimed.

25 In the drawings: Figure 1 is a sectional view of a car showing a mail bag receiving apparatus in operation. Fig. 2 is a side elevation of the mail bag supporting yoke. Fig. 3 is a detail, sectional view of the fastening device for holding the yoke upon the support. Fig. 4 is a modification of Fig. 2. Fig. 5 is a side elevation of the mail bag receiving hook. Fig. 6 is a detail view of the bag-receiving hook. Fig. 7 is a sectional view taken on line 7—7, of Fig. 6. Fig. 8 is an enlarged longitudinal, sectional view of one of the mail bag receiving carriages. Fig. 9 is a detail, perspective of one of the locking members of the mail delivering support. Fig. 10 is a sectional view taken on line 10—10, Fig. 1. Fig. 11 is a fragmentary, longitudinal, sectional view of the hook-device, forming part of the receiving-apparatus.

Referring to the drawings by numerals, 1 45 designates a car, which car is provided with a lower transverse track 2 and an upper transverse track 3. The lower track 2 is placed below the surface of the floor of the car so as to be out of the way of the operator 50 of the mail bag delivering apparatus. The upper track 3 is secured to the car and extends nearly half way across said car so as to allow the mail bag delivering apparatus, hereinafter described, to be readily removed from 55 said tracks. Working in the upper track 3 and the lower track 2 is a frame-work 4, to

the lower end of which are secured rollers 5, which rollers work in the grooved lower track 2. The top of the frame-work 4 works in the grooved track 3. Upon the outer end of each 60 of the tracks 2 and 3 are positioned bumpers 6, which prevent the frame-work 4 from being pushed too far out of the car. To the opposite side of the car are attached clamps 7, which clamps are provided with a reduced 65 extension 8, which passes through the side of the car and has screw-threads upon its end nuts 9. The clamp 7 is adapted to rotate so that, when the frame-work 4 is moved or shoved back into the car, the clamp 7 can be 70 rotated to allow the angle portion 10 of the clamp to overhang a portion of the frame-work 4 and allow the thumb-screw 11 to clamp said portion of the frame-work against one side of the car. 75

The mail bag support, which constitutes the frame-work 4, comprises two upright members 12 and 12^a. Said upright members are joined at the top and bottom by cross members 13. Secured to the upright 80 member 12 are two outwardly-extending members 14, upon the outer end of which is positioned a mail bag carrier or yoke. Secured near the lower end of the upright member 12^a is an angle brace 15, which angle brace is also secured near the outer end 85 of the outwardly - extending members 14. Secured to the upright member 12 are also longitudinally-extending braces 16, which braces are connected or secured to the angle- 90 brace 15. A brace 17 is secured to the angle brace 15 and to one of the longitudinally-extending braces 16 and to the two outwardly-extending members 14 for the purpose of bracing said outwardly-extending mem- 95 bers 14.

A yoke or mail bag carrier 18 is positioned upon the outwardly-extending arms 14; said yoke 18 comprises a plurality of hollow members 19, which are joined or connected 100 by means of upright members 20, the ends of which are screw-threaded into the hollow members 19 at 20. Extensions 21 are positioned near each end of the lower member 19, and to one of these extensions is hinged 105 a semi-circular member 22, and said member 22 is adapted to be locked by means of a thumb-screw 23, which passes through the reduced extension 24 of the member 21 and the bifurcated end 25 of the hinged member 110 22, thus locking the hinge member 22. A mail bag is adapted to be secured to the

hinged member 22 and securely lock by means of said hinged member. Upon one of the outwardly-extending arms 14 is positioned a bumper 26, which prevents the yoke 18 from being pushed too far upon the outwardly-extending members 14.

The yoke 18 is held upon the frame-work 4 by means of the hollow members 19 fitting over the outer ends of the outwardly-projecting members 14, and the hollow members are held upon said outwardly-extending ends by means of a pawl 27, which is pivoted at 28. The pawl 27 is normally held in an upright position by means of a spring 29, which is secured to the outer end of the upper outwardly-extending arms 14, at 30.

In Fig. 4 I have shown a modification of my device. In this instance the outwardly-extending ends of the members 14 are bent at right angles to the frame-work. The hollow members 19 are connected by one vertical member 20' at their rear ends, and the outer member is slightly bulged so as to form a hook, which hook is to be caught by the mail bag receiving apparatus, to be positioned at one side of the railroad track. In this modification, it will be seen that, when the bag is received from the mail bag support, or frame-work 4, it is not necessary to immediately withdraw the frame-work 4 within the car, as is the case with Fig. 1, but the yoke 18 will be readily removed from the ends of the outwardly-extending members 14.

To one side of the track are positioned standards 31, which standards 31 are provided with laterally-extending braces 32. Stretched between said standards 31, and secured to said standards, are two sets of cables or wires 33, constituting an upper and lower set. Upon one end of each of the sets of cables 33 is positioned a bumper 34, which comprises a spring 35 and a bumper plate 36. Upon the opposite ends of the cables 33 are positioned yieldable bumpers 37.

A mail bag receiving device is adapted to travel upon the cables 33, and said device comprises two upper carriages 38 and two lower carriages 39, the upper carriages being connected to the lower carriages by vertically-extending members 40, and each end of the vertically-extending portion 40 is secured in a bulged portion 41 upon the carriages 38 and 39. Secured in said bulged portion are also outwardly-extending rods 42, which are secured at their outer ends to a mail receiving hook and bumper 43, said ends passing through the buffet block 44 and being secured thereto by means of nuts threaded thereon. Extending downwardly from the buffet block is a bumper 45, against which is adapted to strike the mail bag holding yoke 18. Secured to one side of the buffet block 44 is a yoke-receiving extension

46, and said yoke-receiving extension 46 is secured to the buffet block 44 by means of bolts 47, which pass through the flanges 48 upon the extension 46 and through the buffet block 44.

To prevent the yoke from being accidentally removed from the extension 46, after once being placed thereon, are provided hinged leaves 49, which hinged leaves are pivotally connected to the extension 46, at 50, and are normally held in their outward position by means of a coil spring 51 and a flat spring 52. A T-shaped member 53 is fixedly secured to the inside of the flanges 54 of the hinged leaves and is secured to the side of the extension 46 by means of staples 55, the laterally-extending portions 56 of the T-shaped member 53 being below the staple, thus limiting the outward movement of the hinged leaves 49.

The carriages of the mail receiving apparatus comprise a casing 57, in which are positioned two sets of wheels 58 and 59, the upper set traveling upon an upper cable and the lower set traveling upon the lower cable. The casing is also provided with a bulged portion 41 and in said bulged portion are secured the ends of the braces, as hereinbefore described.

The standards 31 are adapted to be placed from seventy-five to one hundred yards apart, and the mail-receiving device is adapted to freely travel upon the cables or wires 33, so that, when the extension 46 comes in contact with the yoke 18, the receiving device can readily travel upon the cables 33, and the operator in the car can readily withdraw the frame-work 4 within said car, and thus the yoke will be removed from said frame-work. When the yoke has been withdrawn from the frame-work 4, the receiving device will travel upon the cables 33 until it reaches the spring-pressed bumper 34, and said bumper being resilient, will return the receiving device in the opposite direction, and reduce the speed considerably, and, if the speed of the receiving device should be so great as to strike with any force, the opposite end, the casings 38 and 39 of the receiving device will strike the cushioned bumpers 37, thus preventing any jar or injury to the receiving device.

What I claim is:

1. In an apparatus of the class described, the combination with a mail bag support, said support comprising a frame-work, said frame-work provided with parallel outwardly-extending portions, a yoke, said yoke comprising an upper and a lower hollow member, said members connected together by a plurality of vertical members, a projection positioned near each end of said lower hollow member, a mail bag hanger hinged to one of said projections, and the other projection provided with a reduced extension, said extension positioned in a bifurcated end of said hanger,

and a thumb-screw passing through said bifurcated end of said extension for locking said hanger.

2. In an apparatus of the class described, the combination with a mail bag support, of a yoke carried by the outer end of said support, said yoke comprising a plurality of hollow members, said hollow members adapted to fit over portions of said support, and means for normally holding said yoke upon said support.

3. In an apparatus of the class described, the combination with a support, said support provided with a plurality of outwardly-extending members, a yoke adapted to fit over said outwardly-extending members, spring-pressed locking means adapted to hold said yoke upon said outwardly-extending members, means for securing a mail bag to said yoke, and means positioned at one side of said support for removing said yoke from said support.

4. In an apparatus of the class described, the combination with a support, of a yoke carried by one end of said support, said yoke comprising a plurality of hollow members, means connecting said hollow members, a hinged loop below said hollow members for supporting a mail bag, and means positioned at one side of said support to remove said yoke from said support.

5. In an apparatus of the class described, the combination with a support, of a yoke carried by said support, means for preventing said yoke from being placed too far upon said support, a hinged semi-circular member below said yoke and hinged thereto for supporting a mail bag, and means for locking said hinged member in a closed position, and means positioned to one side of said support for removing said yoke from said support.

6. In an apparatus of the class described, the combination with a support, of outwardly-extending members positioned upon said support, hollow members positioned upon said outwardly-extending members, said hollow members constituting a part of a mail bag supporting yoke, means connecting said hollow members, means positioned below said hollow members for supporting a mail bag, spring-pressed locking means for normally holding said yoke upon said outwardly-extending members, said locking means comprising a pivoted pawl, said pawl secured near the outer end of one of said outwardly-extending members, a spring secured near one end of said outwardly-extending members and adapted to bear against said pawl for normally holding said pawl in an erect position to one side of said support for removing said yoke.

7. In an apparatus of the class described, the combination with a car, a mail bag support slidably mounted within said car, of pivoted clamps secured to one side of said

car, said clamps comprising an angle body portion, a reduced screw-threaded portion, said reduced screw-threaded portion extending through the side of said car and secured thereto and acting as a pivot for said clamp, a thumb-screw threaded through one part of said angle portion and adapted to clamp one portion of said support against the side of said car.

8. In an apparatus of the class described, the combination with a support, said support provided with a plurality of outwardly-extending members, said outwardly-extending members being bent, at their ends, at right angles to the support, of a yoke positioned upon said angle portion of said outwardly-extending members, said yoke provided with an outwardly-bulged portion, and a mail-receiving apparatus positioned at one side of said support and adapted to engage said loop upon said yoke.

9. In an apparatus of the class described, the combination with a support, of a plurality of outwardly-extending members, the ends of said outwardly-extending members positioned at right angles to said support, a plurality of hollow members positioned upon said angle portion, connecting rods for said hollow portions, one of said rods provided with an outwardly-bowed portion, constituting a loop, spring-pressed means positioned near the end of one of said outwardly-extending members for normally holding said yoke upon said support, and mail bag receiving means positioned at one side of said support and adapted to engage said loop and remove said yoke from said support.

10. In an apparatus of the class described, the combination with a mail bag support, of a mail bag receiving apparatus, said mail bag receiving apparatus comprising a plurality of standards, braces for said standards, two sets of cables or wires stretched between said standards and secured, at their ends, to said standards, spring-pressed bumpers positioned upon one end of said cables, resilient bumpers positioned at the opposite end of said cables, and a mail bag receiving device adapted to travel upon said cables and engage said bumpers.

11. In an apparatus of the class described, the combination with a mail bag support, of a mail bag receiving apparatus, comprising a plurality of vertical standards, two sets of cables stretched between said standards and secured at their ends thereto, bumpers positioned at the ends of said cables, and a mail bag receiving device adapted to travel upon said cables and engage said bumpers.

12. In an apparatus of the class described, the combination with a mail bag support, of a mail bag receiving apparatus, said mail bag receiving apparatus comprising a plurality of vertical standards, a plurality of sets of cables or wires stretched between said

standards and secured, at their ends, thereto, bumpers positioned upon one end of said sets of cables, said bumpers comprising a coil-spring, bearing at one end against one of said standards, a plate, the other end of said spring bearing against said plate, and a mail bag receiving device adapted to travel upon said cables and engage said bumpers.

13. In an apparatus of the class described, the combination with a mail bag support, of a mail bag receiving apparatus, said receiving apparatus comprising a plurality of vertical standards, an upper set of cables and a lower set of cables, said cables stretched between said standards and secured, at their ends, thereto, a mail bag receiving device adapted to travel upon said cables, said device comprising a plurality of carriages adapted to travel upon the upper set of cables and a plurality of carriages adapted to travel upon the lower set of cables, means connecting said carriages, a mail bag receiving hook, and means for supporting or securing said mail bag receiving hook to said mail bag receiving apparatus.

14. In an apparatus of the class described, the combination with a mail bag support, of a mail bag receiving apparatus, said apparatus comprising a plurality of vertical standards, an upper and lower set of cables stretched between said cables and secured, at their ends, thereto, a plurality of carriages adapted to travel upon the upper set of cables and a plurality of carriages adapted to travel upon the lower set of cables, vertical connecting means connecting said upper and lower carriages, a mail bag receiving hook, means secured, at one end, to said upper and lower carriages, and secured at their ends to said mail bag receiving hook.

15. In an apparatus of the class described, the combination with a support, of a mail bag receiving apparatus, said mail bag receiving apparatus comprising a plurality of vertical standards, a plurality of sets of cables stretched between said standards and secured, at their ends, thereto, a plurality of carriages adapted to travel upon said upper set of cables and a plurality of carriages adapted to travel upon said lower set of cables, bulged portions positioned upon one side of said carriages, vertical rods secured, at their ends, in said bulged portions of said upper carriages and at their lower ends in said bulged portions of said lower carriages, and means positioned in said bulged portions of said upper and lower carriages and extending outwardly for supporting a mail bag receiving hook.

16. In an apparatus of the class described, the combination with a mail bag receiving apparatus, said apparatus comprising a plurality of vertical standards, of a plurality of sets of cables stretched between said standards and secured, at their ends, thereto, a

plurality of carriages adapted to travel upon said cables, said carriages comprising a casing, said casing provided with an outwardly-bulged portion, and a plurality of sets of rollers traveling upon said cables positioned in said carriages, means connecting said carriages, and means for supporting a mail bag receiving hook upon said carriages.

17. In an apparatus of the class described, the combination with a mail bag support, of a mail bag receiving apparatus, said apparatus comprising a plurality of vertical standards, of a plurality of sets of cables stretched between said standards and secured, at their ends, thereto, a mail bag receiving device adapted to travel upon said cables, said mail bag receiving device comprising a plurality of carriages, means for connecting said carriages, and means secured at one end to said carriages for supporting a mail bag receiving hook.

18. In an apparatus of the class described, the combination with a mail bag receiving apparatus, of a mail bag receiving hook device, said hook device comprising a buffet block, a downwardly-extending portion constituting a bumper, an outwardly-extending portion, said outwardly-extending portion constituting a hook, and means positioned upon said hook for preventing the removal of an object after being placed thereon.

19. In an apparatus of the class described, the combination with a mail bag receiving device, said device comprising a buffet block, a downwardly-extending portion, said downwardly-extending portion constituting a bumper, of an outwardly-extending portion, said outwardly-extending portion provided with an inner flanged end, means secured to said flanged end and passing through said buffet block for securing said outwardly-extending portion to said buffet block, leaves pivotally connected near one end of said outwardly-extending portion and adapted to prevent the removal of an object after being delivered thereon.

20. In an apparatus of the class described, the combination with a mail bag receiving hook device, said device comprising a buffet block, a bumper and an outwardly-extending portion, said outwardly-extending portion constituting a mail bag receiving hook, said mail bag receiving hook comprising an upper and a lower hinged leaf, said leaves being pivotally connected near the outer end of said hook, springs positioned in said hinged leaves, and means limiting the outward movement of said leaves.

21. In an apparatus of the class described, the combination with a support of a mail bag receiving hook-device carried thereby, said device comprising a buffet block, a bumper and a hook, said hook provided with a plurality of hinged leaves, means normally exerting an outward pressure upon said leaves, a

and means for limiting the outward movement of said leaves.

22. In an apparatus of the class described, the combination with a mail bag receiving
5 hook device, said device comprising a buffet block, a bumper, a hook, said hook provided with a plurality of hinged leaves, coil-springs bearing against said hinged leaves and normally exerting an outward pressure upon
10 said leaves, flat springs positioned intermediate the ends of said hinged leaves, and means for limiting the outward movement of said leaves.

23. In an apparatus of the class described,
15 the combination with a mail bag receiving

hook device, of a plurality of hinged leaves, springs normally exerting an outward pressure upon said leaves, a T-shaped member fixedly secured, at one end, to each hinged leaf, a staple fastening said T-shaped member to said hook, the laterally-extending portion of said member constituting a head, and preventing said T-shaped member from being removed from said staple.

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

GEORGE L. KRINKE.

Witnesses:

SUMNER H. TURNER,
FLOYD W. KINGSLEY.