

No. 826,665.

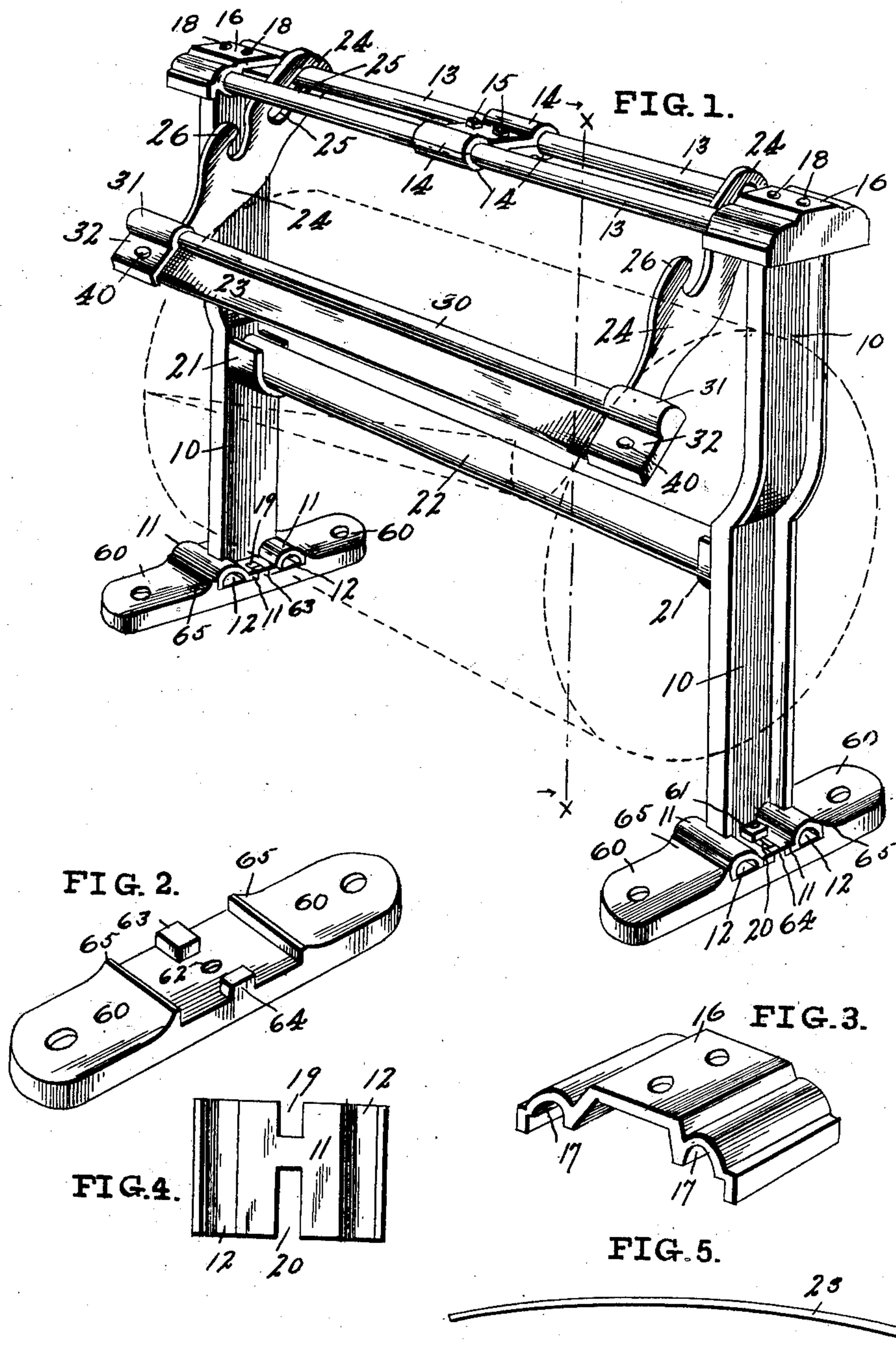
PATENTED JULY 24, 1906.

F. KAUFMAN.

ROLL PAPER HOLDER AND CUTTER.

APPLICATION FILED AUG. 31, 1901. RENEWED FEB. 6, 1906.

2 SHEETS—SHEET 1.



Witnesses  
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L. Morrill.

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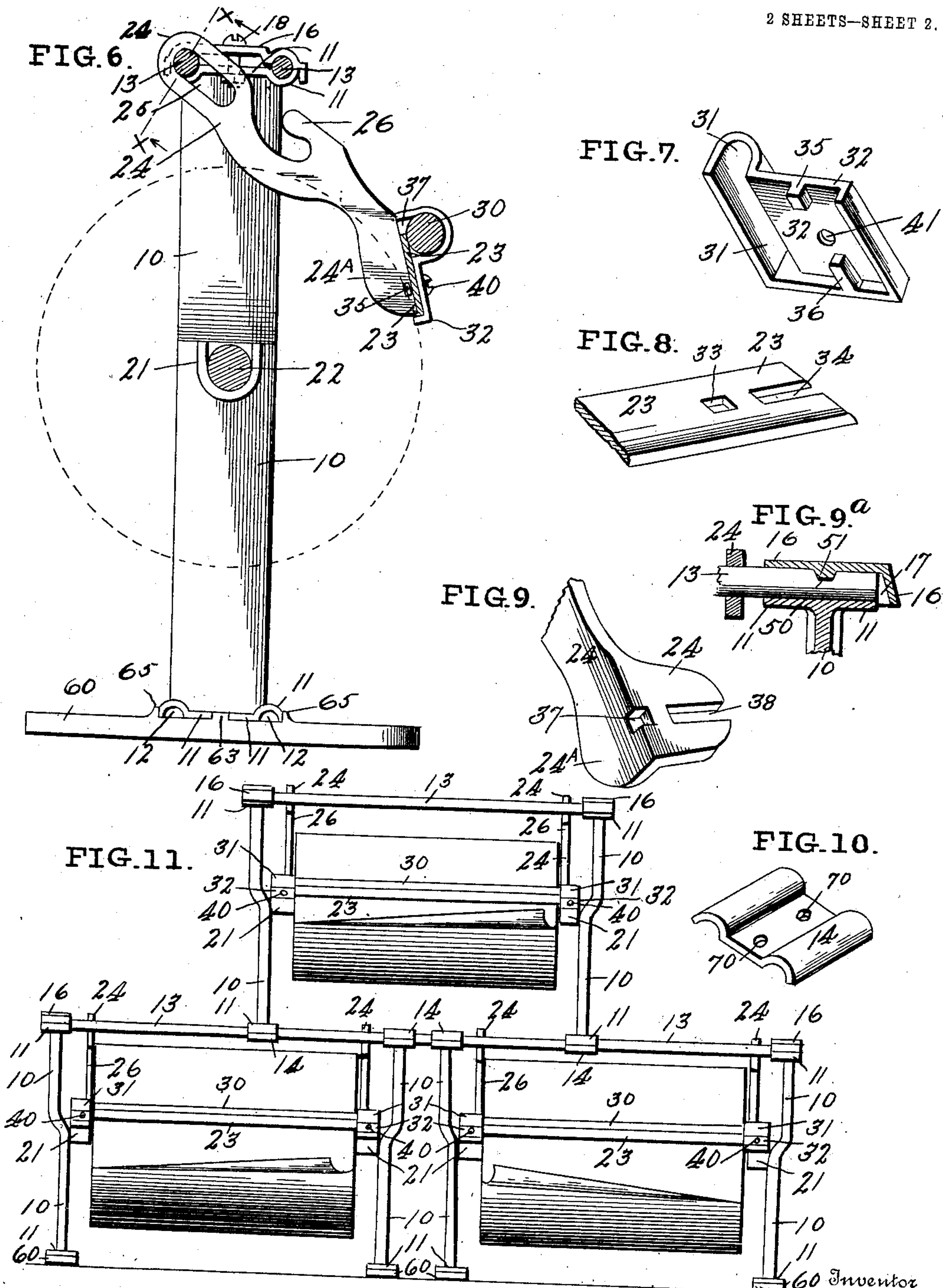
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# UNITED STATES PATENT OFFICE.

FRANK KAUFMAN, OF DAYTON, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE WEST SUPPLY COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF OHIO.

## ROLL-PAPER HOLDER AND CUTTER.

No. 826,665.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed August 31, 1901. Renewed February 6, 1906. Serial No. 299,743.

*To all whom it may concern:*

Be it known that I, FRANK KAUFMAN, a citizen of the United States of America, residing and having my post-office address at Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Roll-Paper Holder and Cutter; and I hereby declare that the following is a clear, full, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

My invention relates to roll-paper holders and cutters; and it particularly relates to the constructions, arrangements, and combinations of the various parts, as well as the apparatus as a whole, all of which will be hereinafter more fully described, as well as clearly specified in the appended claims.

In the drawings illustrating the best form of apparatus to me now known for embodying my invention, Figure 1 is a perspective view of an apparatus embodying my invention. Fig. 2 is an enlarged perspective view of one of the feet thereof. Fig. 3 is an enlarged perspective view of one of the caps thereof. Fig. 4 is a view of either the top or bottom end of one of the standards. Fig. 5 is an edge view of the knife before the same is inserted in the machine. Fig. 6 is a sectional elevation view on line *x x* of Fig. 1. Fig. 7 is a bottom perspective view of one of the caps at each end of the knife. Fig. 8 is a perspective view of a portion of the knife, showing the manner of forming each end of the knife. Fig. 9 is a perspective view of the lower portion of one of the knife-arms. Fig. 9<sup>a</sup> is a sectional elevation view substantially on line *x x* of Fig. 6. Fig. 10 is a perspective view of one of the clamps; and Fig. 11 is a front elevation view showing how a number of apparatuses embodying my invention may be secured together in a larger unitary apparatus that in this art is termed a "pyramid," and which pyramid is usually formed of a number of apparatuses of different widths for holding different widths of paper or may be formed of a number of apparatuses of the same width for holding paper of the same width, but of different qualities, colors, &c.

In said drawings, 10 represents the standards, having heads 11 at opposite ends, the outer surfaces of which are substantially flat and at right angles to the length of said stand-

ards. The outer surfaces of each of said heads 11 are provided with separated recesses 12, adapted to fit upon separated parallel rods 13, extending between the tops of each pair of standards 10, which form a single apparatus. Said rods 13 may be of any contour, but are preferably round and for convenience are clamped together intermediate their ends by two similarly-shaped clips 14, Figs. 1 and 10, secured together by bolts 15. Said rods 13 are clamped in the recesses 12 in the tops of standards 10 by caps 16, Figs. 1 and 3, having recesses 17 fitting said rods, said caps 16 being secured by bolts 18 passing between said rods 13 through openings in said caps and slots 19 and 20 in the heads of said standards.

The inner sides of standards 11 are provided with integral bearing-cups 21 centrally between said recesses 12 for supporting the spindle 22 for the roll of paper. The knife-blade 23, adapted to rest on said roll of paper, is secured at opposite ends to arms 24, provided with elongated slots 25, embracing one of said rods 13, while intermediate said slots 25 and said knife-blade 23 said arms 24 are each provided with a hook 26, adapted to be hooked over the other of said rods 13 when said knife 23 is elevated and pushed back toward said rods 13. In this position the knife 23 is supported free from the paper-roll, so that both hands may be free to insert a new roll.

The knife 23 and its arms 24 being independent of the entire apparatus and connected only to the frame at a point above said knife and normally by said elongated slots 25 engaging projections of the frame enables said knife to be moved back from and permit the grasping of the edge of the paper and said knife to assume its normal position by gravity (said slots 25 being inclined toward the cutting edge of said knife) as the paper is being drawn from the roll, which moving back of said knife is readily effected by pressure of the fingers upon the projection 30 on the rear edge of said knife. This moving of said knife causes the fulcrum projection or projections to assume different positions in said slots 25, and thus varies the distance between the knife and its fulcrum, and when said movement of the knife from the edge of the paper is continued further and the knife



simultaneously moved upward from the roll of paper the hooks 26, carried with said knife at opposite ends, engage rod 13 to maintain the flexible knife out of the way to enable both hands to be employed in adjusting a roll of paper with said apparatus and which obviates the necessity of holding said knife out of contact with said roll of paper with one hand and trying to put said roll of paper into the apparatus with the other hand.

The knife 23 is preferably formed of a thin strip of metal arched upward, as shown in Fig. 5, and a rod 30 rests upon the upper edge of said knife 23 to press the same upon the paper-roll and in contact therewith throughout the width of the paper. The ends of said rods 30 enter sockets 31 of caps 32, Figs. 1, 6, and 7, by which sockets said rod 30 is secured in place. The opposite ends of knife 23 are provided with openings 33 and 34, in which respectively fit lugs 35 and 36 upon the lower side of each of said caps 32, said lugs 35 and 36 being of such length that they pass through said openings 33 and 34 and into slots 37 and 38 in the lower ends of each of said arms 24, Figs. 6, 7, 8 and 9. This forms, as it were, a locked corner connection between said knife 23 and arms 24, which, including said caps 32, are secured together by a bolt or rivet 40 passing through opening 41 in each of said caps 32 and through the inner ends of the openings 34 and recesses 38. The knife 23 being thin and flexible and said rod 30 resting loosely upon the same enables said knife 23 to bear uniformly throughout the length of the paper-roll irrespective of the usual differences in its diameter and enables the knife to smoothly cut the paper at all times, which with other contructions is impossible.

In the description thus far it is contemplated that the rods 13 be secured by frictional contact between recesses 17 of caps 16 and recesses 12 in the top of standards 10; but said rods 13 may be locked thereto by forming recesses 50 in said rods 13 and projections 51 from recesses 17 of caps 16, said projections 51 fitting said recesses 50 and preventing the separation of rods 13 and standards 10 should bolts 18 become loose.

Feet 60 are removably secured to the lower end of each of the standards 10 by bolts 61 passing through openings 62 in said feet and through slots 20 in the heads 11 upon the lower end of said standards 10. To prevent the twisting of said feet 60 upon said standards while secured thereto with but one bolt, I provide projections 63 and 64, respectively engaging said slots 19 and 20 in each of the heads 11 upon the lower ends of said standard 10, while in furtherance of this same object projections 65 may be formed on said feet 60, engaging opposite sides of the heads 11 upon the lower ends of standards 10.

In building what is termed a "flat pyramid," as shown in the lower half of Fig. 11, two rods 13 are selected of the length equal to that of the two or more cutters setting end to end. The caps 16 are removed from all the standards 10, except the two outer standards, and clips 14, Fig. 10, are substituted for said caps thus removed, which clips 14 clamp said rods 13 to the tops of said standards in the same manner as said removed caps 16. In building a high pyramid—i. e., building one cutter upon the other, as shown in the upper half of Fig. 11—the feet 60 of the upper cutter are removed and said cutter set upon the rods 13 of the lower cutter or cutters, the recesses 12 in the heads 11 at the bottom of said standards fitting said rods 13, and a clip 14 is secured in place of each of said removed feet by means of bolts passing through openings 70 in said clips 14 and through said slots 19 and 20 in the heads 11 at the bottom of said standards.

Having now so fully described my invention that others skilled in the art may freely make and use the same when this exclusive grant shall cease to operate, what I claim, and desire to secure by Letters Patent, is—

1. In a paper-cutter the combination of a frame, means rigid upon said frame for supporting the paper to be severed, a knife independent of said means and connected to said frame by a fulcrum only, said fulcrum being rigid upon said frame, and means including said fulcrum whereby, at will, the distance between the knife-edge and said fulcrum may be changed by the bodily movement of said knife independent of said frame and first-named means.

2. In a roll-paper holder and cutter, the combination of a frame, means rigidly carried thereby for supporting the paper-roll, a knife, arms connected near opposite ends to said knife, and means, including portions rigid upon said frame, for movably fulcruming said knife to said frame whereby said knife may be moved in two directions, one direction being toward and from the center of the paper-roll, and the other direction being substantially parallel with that portion of the periphery of the paper-roll adjacent the severed edge of the paper and toward the knife-fulcrum.

3. In a paper-roll holder and cutter, the combination of a frame, means carried thereby for supporting the paper to be severed, a knife adapted to rest at one edge on the paper to be severed, arms secured to said knife, fulcrum means comprising relatively long coöperating slots in said knife-arms and projections on said frame for connecting said knife-arms to said frame, the fulcrum-point of said knife being in a higher plane than that of the severing edge of said knife, said slots being inclined toward the severing edge of said knife with the highest part of said



slots further removed from the vertical plane passing through the severed edge of the paper than the lowest part of said slots, said knife and arms being connected to said frame and supporting means by said fulcrum means only, and said knife being bodily movable at an angle to the height of said frame.

4. In a paper-cutter the combination of a frame provided with integral means for supporting the paper-roll, a knife, means rigid upon said frame for fulcruming said knife to said frame, including means for varying the distance between the cutting edge of said knife and its said fulcrum.

5. In a paper-cutter the combination of a frame having means for supporting the paper, a knife formed of a relatively thin blade, arms secured near opposite ends of said blade, means for slidably fulcruming said arms to said frame, and a rod extending along that edge of the blade opposite its cutting edge, whereby said knife may be bodily moved to the height of said frame.

6. In a paper-cutter, the combination of a frame having means for supporting the paper, a knife formed of a relatively thin blade, arms secured near opposite ends of said blade, means for fulcruming said arms to said frame, a rod extending along that edge of said blade opposite its cutting edge, and a cooperating projection and relatively long slots carried by said frame and arms.

7. In a paper-cutter the combination of a frame having means for supporting the paper, a knife fulcrumed thereon, and relatively movable cooperating portions rigidly mounted on said knife and frame near opposite ends of said frame.

8. In a paper-cutter the combination of a frame having means for supporting the paper having a knife consisting of arms near opposite ends thereof, means for securing said arms to said knife, and an outward projection extending along the blade of said knife back of the cutting edge and upon the side of said knife opposite the paper.

9. In a paper-cutter, the combination of a knife having arms secured near opposite ends thereof and a rod extending along the blade of said knife back of its cutting edge; a frame having means for supporting the paper; and fulcruming means for movably securing said arms to said frame and supporting said knife in said frame so that it may be moved in a plurality of directions at angles to each other.

10. In a paper-cutter the combination of a frame having means for supporting the paper thereon, a knife-blade formed of a relatively thin sheet of metal and a weight-rod independent thereof and extending longitudinally of and along one side of said knife-blade back of its cutting edge, an arm for each end of said knife-blade and a single

means for securing said rod and said knife to each of said arms.

11. In a paper-cutter the combination of a knife-blade formed of relatively thin sheet metal, a weight-rod independent thereof and extending along one side of said knife-blade back of its cutting edge, arms near opposite ends of said knife-blade, and means for connecting the thin members comprising said last two named elements to said knife by securing one of said elements to said knife, a frame having means for supporting the paper therein and means for fulcruming the knife-blade arms thereto.

12. In a paper-cutter the combination of a knife-blade formed of a relatively thin sheet of metal, a weighted outward rod independent thereof and extending along said knife-blade near its back, arms near opposite ends of said knife-blade and means including cooperating recesses and projections on said rod and arms for connecting the thin members comprising said two last-named elements to said knife by securing one of said elements to said knife, a frame having means for supporting the paper, said arms being fulcrumed to said frame.

13. In a paper-cutter the combination of a knife-blade formed of a relatively thin sheet of metal, arms secured near opposite ends thereof, a weight-rod independent of and adjacent the outer surface of said knife-blade, recesses carried by said arms, and said weight-rod extending into said recesses.

14. In a paper-cutter the combination of a knife-blade formed of a relatively thin sheet of metal, arms near opposite ends of said knife-blade and engaging faces of said knife-blade at angles to each other, recesses carried by said arms, a weight-rod independent of and adjacent the outer surface of said knife-blade portions of said weight-rod extending into said recesses, and means for securing said arms to said knife.

15. In a paper-cutter the combination of a knife formed of a relatively thin blade, and separate slots in the opposite ends of said blade, said slots being equidistant from the longitudinal edges of said blade, arms for said knife, and means passing through said slots for securing said arms to said knife, whereby said arms may be secured upon either side of said knife, and a recessed portion carried by each of said knife-arms, one edge of said knife being adapted to contact with one wall of said recessed portion.

16. In a paper-cutter, the combination of a thin knife-blade, arms secured to opposite ends thereof, a frame having means for supporting the paper, means for fulcruming said knife-arms to said frame, and a weight independent of and above said knife-blade throughout its length, and means for loosely securing said weight to said arms.



17. In a paper-cutter the combination of a thin knife-blade, arms at opposite ends thereof, a weight independent of said knife-blade and extending substantially throughout its length, caps having recesses for the ends of said weight, and means for securing said caps and arms to the ends of said knife-blade.

18. In a paper-cutter the combination of a thin knife-blade, arms at opposite ends thereof, a weight independent of said knife-blade and extending substantially throughout its length, caps upon the ends of said knife-blade, said caps having recesses for the ends of said weight, an elongated slot in each end of said knife-blade and in the lower end of each of said knife-arms, an elongated lug on the under side of each of said caps, and means for securing said arms and caps to the ends of said knife-blade with said lug on each cap occupying said slots.

19. In a paper-cutter the combination of a thin knife-blade, arms at opposite ends thereof, a weight independent of said knife-blade and extending substantially throughout its length, caps upon the ends of said knife-blade, said caps having recesses for the ends of said weight, a plurality of slots in each end of said knife-blade and in the lower end of each of said knife-arms, a corresponding plurality of lugs on the bottom face of each of said caps, and means for securing said arms and caps together with said lugs occupying said slots in said knife-blade and knife-arms.

20. In a paper holder and cutter, the combination of standards each having a recess in its upper face, a rod extending between said standards and occupying said recesses, caps removably mounted upon the tops of said standards for clamping said rod to each of said standards, a recess in the bottom face of each of said standards, portions removably secured over said bottom faces, means carried by the frame thus formed for supporting the roll of paper, and a knife mounted in said frame.

21. In a paper holder and cutter the combination of standards each having a plurality of recesses in their tops, a corresponding plurality of rods extending between said standards and occupying said recesses, caps removably mounted upon the tops of said standards for clamping said rods to said standards, a corresponding plurality of recesses near the bottoms of each of said standards, portions removably secured to each of said bottoms, and means for supporting the roll of paper.

22. In a paper holder and cutter the combination of standards each having a similarly-shaped recess in its opposite ends at an angle to the length of said standards and adapted to fit a rod, a rod extending between the tops of said standards and occupying said recesses in the tops of said standards, caps removably secured to the tops of said standards for clamping said rod to each end of said stand-

ards, and a member removably secured to and extending over the recesses in the bottoms of each of said standards.

23. In a paper holder and cutter, the combination of standards each having a plurality of recesses in their top and bottom ends at an angle to their length, a corresponding plurality of rods extending across the tops of said standards and occupying said recesses in the tops of said standards, caps upon the tops of said standards for clamping said rods to said standards, bolts passing through each of said caps and standard-caps intermediate said rods, and a member removably secured to the bottoms of each of said standards by bolts passing through said members and standard-bottoms intermediate said recesses in the bottoms of said standards.

24. The combination of standards each carrying two projections, a knife having arms near opposite ends, said knife-arms being each provided at different points in its length with a sliding bearing adapted to engage one of said projections and a hook adapted at will to engage said other projection.

25. In a paper-cutter, the combination of a standard having its inner face in different vertical planes at opposite ends, a spindle-bearing in said standard, and a head and foot upon opposite ends of said standard and projecting from opposite faces thereof, said head and foot having recesses in their outer faces transverse thereof, and openings through said head and foot at substantially right angles to said recesses.

26. As a new article of manufacture for a paper-cutter, a standard having a head and foot on opposite ends and a spindle-bearing intermediate its ends, two recesses in the outer face of each said head and foot extending across said head and foot, said recesses being parallel and equidistant from an imaginary line drawn through the center of said spindle-bearing.

27. As a new article of manufacture for a paper-cutter, a standard having a head at one end and a spindle-bearing, two parallel recesses in the outer face of said head, said recesses being equidistant from an imaginary line drawn through the center of said spindle-bearing, and slots intermediate said recesses and in opposite sides of said head, said head being joined to said standard at a point intermediate the opposite ends of said slots.

28. In a paper holder and cutter the combination of a frame consisting of standards having spindle-bearings, a head upon the top of each standard, a cap removably secured to each of said heads, recesses intermediate said heads and their caps, a cross rod or rods extending between said heads and occupying said recesses, and a knife mounted upon said frame.

29. In a paper holder and cutter, the combination of a frame consisting of standards



having spindle-bearings, a head upon the top of each standard, a cap removably secured to each of said heads, recesses intermediate said heads and their caps, a cross rod or rods extending between said heads and occupying said recesses, said caps being each provided upon a plurality of their sides with projections extending below the top surface of said heads, and a knife mounted upon said frame.

10 30. In a paper-cutter, the combination of a frame, an arched knife-blade therefor and means for bearing upon the arched side of said blade and flattening said arch.

15 31. In a roll-paper cutter and holder, the combination of a plurality of standards having spindle-bearings, heads and feet upon the opposite ends of said standards, said heads being integral with said standards, one or more rods extending across the tops of said  
20 heads and constituting a connection between the heads of different standards, caps secured upon each of said heads with said connection secured between said caps and heads, said caps upon opposite ends of said connection having end projections extending over  
25 and concealing from view the ends of said

connection, and a knife movably mounted intermediate each pair of standards secured to said connection.

32. In a paper holder and cutter, the combination of a plurality of standards, heads upon opposite ends, registering recesses in the outer faces of said heads, a plurality of sets of rods occupying said top recesses and extending between the tops of a corresponding plurality of sets of standards, caps removably secured to the tops of each of said standards with said rods intermediate them, the bottom of some of the sets of said standards resting upon the cross-rods of the lower set of standards with their bottom recesses embracing said rods, caps removably secured to the bottoms of each of said upper standards and embracing said rods of the lower set of standards, and feet removably secured to the bottoms of the lowest set of standards.

In witness whereof I have hereunto set my hand this 1st day of April, 1901.

FRANK KAUFMAN.

Witnesses:

CHAS. W. FINCH,  
IRA C. KOEHNE.