Aug. 20, 1957 P. A. REUTTER 2,803,218

COPYHOLDER

Filed June 29, 1955

Fig. 1

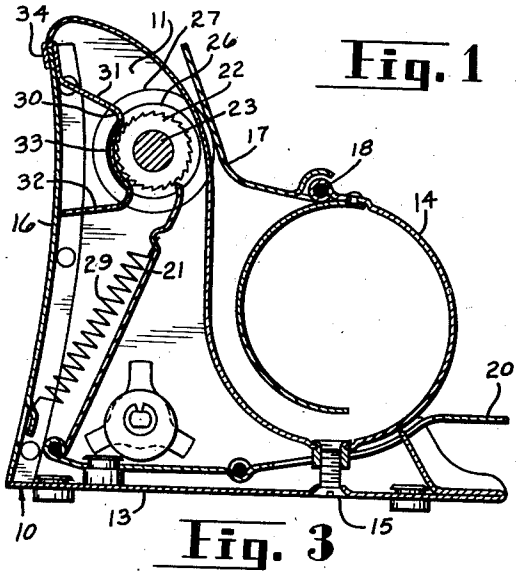


Fig. 2

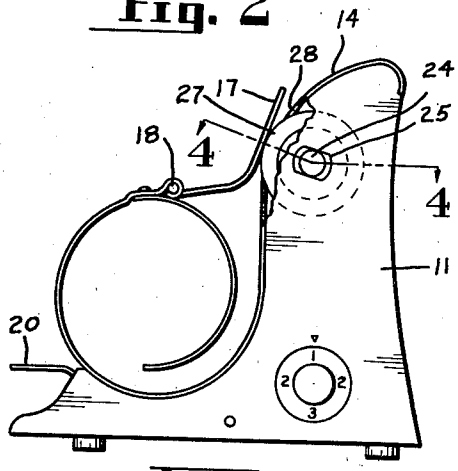


Fig. 3

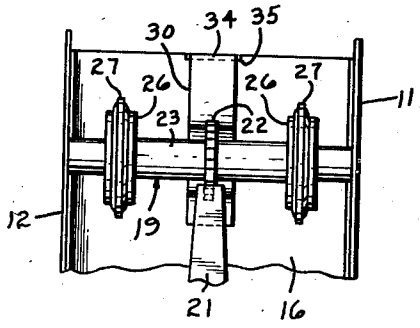
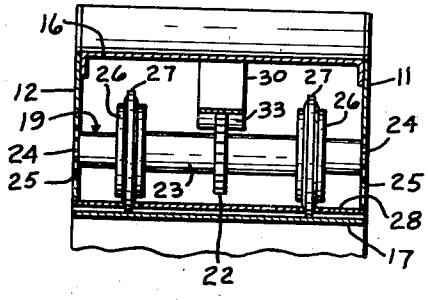


Fig. 4



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COPYHOLDER

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4 Claims. (Cl. 120—32)

This invention relates to copy holders for holding a sheet of manuscript, or typewritten or printed matter to be copied, and for moving the sheet intermittently a line at a time, so as to bring the lines successively to a predetermined level or position of vision for the copyist, an example of which is shown in Patent No. 2,162,706.

Considerable difficulty has been experienced in the past with copy holders in assuring that the copy paper would be uniformly fed by the machine. The slightest variation in the size of the feeding wheels or other commercial tolerances required in the manufacture of the machine was sufficient to produce an unreliable copy holder. To overcome this fault resort was made to a floating sleeve supporting the friction wheels and rotatably mounted on a stationary spindle. This floating sleeve construction was costly to make and did not assure a uniform feeding of the copied work, as experience has taught that this construction would feed the copied work by a so-called "step-ladder" effect, i. e. alternately feeding one side of the copied work faster than the other.

It is the object of this invention to greatly simplify the construction of the feed roller unit and assure that the feed rollers will have uniform pressure against the paper.

A further object is to mount the feed roller unit within the support stand in such a manner that the spindle is automatically self-adjusting to equalize the pressure of the feed rollers against the copy work.

Other objects and advantages of the invention will be apparent from the following description taken in connection with the accompanying drawing, wherein:

Fig. 1 is a vertical sectional view of a copy holder embodying my invention.

Fig. 2 is a right end view of the same.

Fig. 3 is a fragmentary front elevational view of the upper part of the copy holder with the scroll plate removed, and

Fig. 4 is a transverse sectional view of the upper part of the copy holder taken along the line 4—4 of Fig. 2.

Referring now to the drawings, the copy holder device comprises a casing **10** having opposite right and left side walls **11** and **12** which are preferably folded up from the base **13** thereof. The casing also includes a scroll-like plate **14**, the greater part of which forms a cover for the front of the casing **10**. The scroll-like plate **14** is held in place by an assembly screw **15** rotatably mounted in the base **13**. The rear of the casing may be closed off by a back wall **16** to protect the internal mechanism.

Pressure means engaging the front face of the copy may take the form of a presser member **17** hingedly mounted to the upper part of the scroll plate as by a hinge pin **18** and normally urged to swing toward the front wall of the casing by a suitable coil spring (not shown).

The feed mechanism includes a roller unit **19** located on the inside of the casing **10**. The roller unit **19** may be intermittently operated from the front of the device

by a finger trip bar **20** through a dog **21** and ratchet wheel **22**.

The particular construction and manner of mounting the roller unit **19** is the subject of my invention and consists of a solid axle shaft or spindle **23** having reduced ends **24** rotatable in elongated slots **25**, one provided in each of the side walls **11** and **12**. A pair of paper-feed rollers **26** are rigidly secured on the shaft **23** in spaced relationship and carry peripheral friction rings **27** such as rubber. The friction rings **27** are adapted to project through complementary slots **28** in the front wall of the scroll plate **14** for the purpose of frictionally engaging any copy sheet interposed between said rings **27** and the presser member **17**.

The roller unit **19** is adapted to be driven by the ratchet wheel **22** which is preferably blanked out of sheet stock and mounted on the shaft **23** midway between the rollers **26**. The ratchet wheel **22** is operated by the dog **21** and finger-trip bar **20**, the dog **21** being held against the ratchet wheel **22** in the usual manner by a coiled spring **29** tensioned between the dog **21** and the back wall **16**.

In order to permit the roller unit **19** to pivot about a fulcrum point so as to equalize the pressure of friction rings **27** carried by the rollers **26** against the presser member **17**, as pointed out above, the reduced ends **24** of the shaft **23** are mounted in elongated slots **25**, the direction of elongation being the same as the force applied by the presser member **17** at the point where the wheel friction rings **27** engage the paper behind said presser member. A fulcrum bracket **30** is provided which is made from a sheet metal strip and consists of upper and lower support legs **31** and **32** with an arcuate section **33** connected therebetween. The upper leg **31** is formed with a hooked end **34** that engages in a recess **35** in the upper edge of the back plate **16**, while the lower leg merely abuts against said back plate. The arcuate section **33** is shaped and positioned to embrace a circumferential portion of the projecting teeth of the ratchet wheel **22**. Further, the position of the arcuate section **33** is such as to support the ratchet wheel **22** so that the reduced ends **24** of the shaft **23** are normally disposed at the center of the elongated slots **25**.

From the above construction it will be apparent that if there are any irregularities in the positioning of the presser member **17** to the scroll plate **14** or any irregularities in other parts of the machine the roller unit **19** can readily adjust itself so as to assure an equalizing of the pressure of the feed-rollers against the presser member or interposed copy sheet.

While the form of invention herein shown and described embraces a preferred embodiment of the same, it is to be understood that the construction may be altered as to mechanical details without departing from the spirit of invention and the scope of what is claimed.

I claim:

1. In a copy holder comprising a casing having opposite side walls and a rear wall, a spindle pivotally mounted in said side walls, feed rollers rigidly mounted on said spindle and adapted to engage one side of a sheet of copy, presser means engaging the opposite side of said copy, means for floatingly mounting the ends of said spindle in said side walls, and means for supporting the central portion of said spindle about which the spindle can tilt as a fulcrum to permit the feed rollers to automatically equalize their pressure engagement against the sheet of copy.

2. In a copy holder comprising a casing having opposite side walls and a rear wall, a spindle pivotally mounted in said side walls, feed rollers rigidly mounted on said spindle and adapted to engage one side of a sheet of copy, presser means for engaging the opposite

side of said copy, means for floatingly mounting the ends of said spindle in said side walls, a driver means mounted on said spindle centrally of the feed rollers, and a bracket attached to the rear wall of said casing, said bracket having a bearing portion engaged by said driver means and serving as a fulcrum for the spindle to permit said spindle to tilt about its central portion and permit the feed rollers to automatically equalize their pressure engagement against the sheet of copy.

3. In a copy holder comprising a casing having side walls and a rear wall, said side walls each having an elongated opening therein, a spindle having reduced ends pivotally and floatingly mounted in said elongated openings, feed rollers rigidly mounted on said spindle and adapted to engage one side of a sheet of copy, presser means for engaging the opposite side of said copy, a driver means in the form of a ratchet gear mounted on said

spindle centrally of the feed rollers, and a bracket having an arcuate section partially embracing said ratchet gear and having leg members positioning said arcuate section away from said rear wall, said arcuate section serving as a fulcrum about which the spindle can tilt and permit the feed rollers to automatically equalize their pressure engagement against the sheet of copy.

4. A copy holder as defined by claim 3 wherein the openings in the side walls are elongated in the same direction as the force applied by said presser means.

References Cited in the file of this patent

UNITED STATES PATENTS

830,991	Griffin	Sept. 11, 1906
1,939,671	Dodds	Dec. 19, 1933
2,273,841	Dodds	Feb. 24, 1942