A. KRAUTH.

WEB HOLDER FOR MANIFOLDING DEVICES.

APPLICATION FILED SEPT. 27, 1915.

1,208,168.

Patented Dec. 12, 1916.

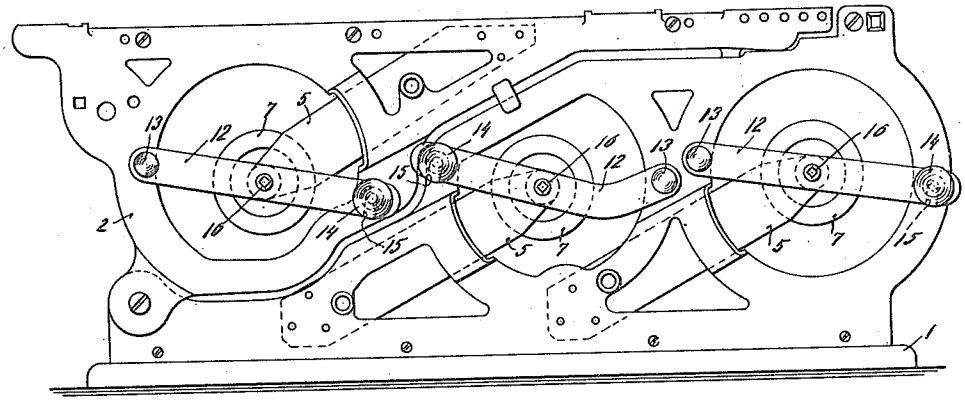


Fig. 1.

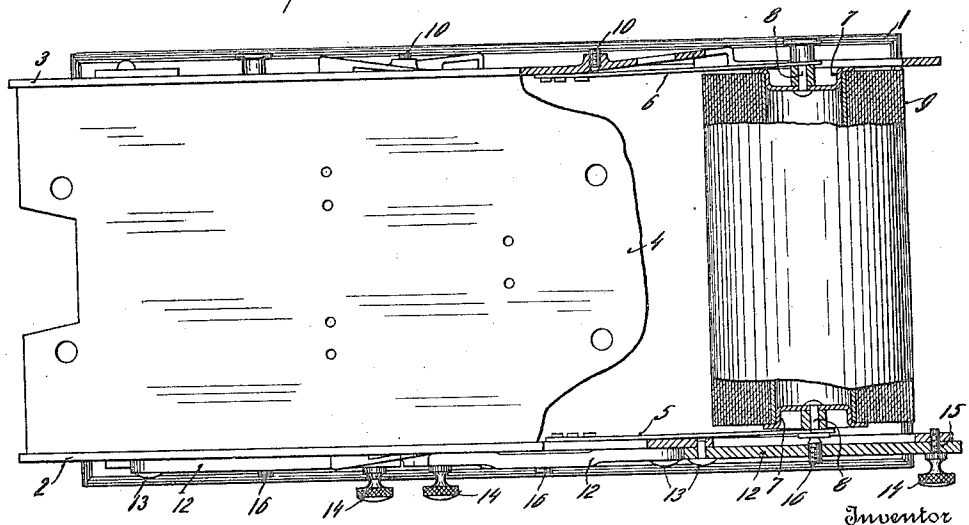


Fig. 2.

Witnesses

G. G. Brown

C. B. Porter.

Inventor

Albert Krauth

By Wood & Wood

Attorneys

THE NORRIS PETERS CO., PHOTO LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT KRAUTH, OF HAMILTON, OHIO.

WEB-HOLDER FOR MANIFOLDING DEVICES.

1,208,168. Specification of Letters Patent. Patented Dec. 12, 1916.

Application filed September 27, 1915. Serial No. 52,810.

To all whom it may concern:

Be it known that I, ALBERT KRAUTH, a citizen of the United States, and residing at Hamilton, in the county of Butler and State of Ohio, have invented a new and useful Improvement in Web-Holders for Manifolding Devices, of which the following specification is a full disclosure.

My invention relates to manifolding devices or autographic registers, and principally to the means for supporting or holding the supply webs of paper within the machine.

The type of web support or holder to which my invention is preferably applicable, comprises a pair of opposing blades or flexible members, secured to the side frames of the machine and yielding toward each other to compressingly grasp the web between them. Each member has a cup-shaped disk at its free end nestingly engaged into the core of the web. They provide a construction for easily and conveniently mounting the paper webs in renewing the paper supply or loading the machine, and also apply the tension required for a satisfactory unwinding of the paper. For ordinary purposes the holders meet the requirements but are capable of permitting the web to shift laterally with the feeding pull of the paper, or through an unequal pressure of the holders one against the other so as to disturb or destroy the delicate alinement or registry of the paper upon the writing table of the machine, or interfere with the proper coöperation of the paper with the paper feeding and arresting devices utilized for issuing or delivering, from the machine, measured sheet lengths.

An object of the invention is to utilize the yielding web holders, above referred to, and to provide abutment means adapted to engage one of the holders of a pair, to determinately limit the lateral motion of a mounted web in one direction and regulatable to adjust the ends of a plurality of webs in series relatively, for alining or registering the subject-matter upon the several strips of paper fed from the web upon and across the writing table, or with respect to the table or other parts of the machine to maintain a proper operation of the paper feed or delivery, or other requirements. And further, to releasably or removably mount said means, whereby the holders may be relieved of such confining or motion limit influence, for moving the holders in a relatively expanding direction to the maximum degree required for free and convenient control in removing or mounting a web of paper.

Various other objects and features of the invention are readily comprehended from the following description of the drawings disclosing the preferred embodiment of the invention and forming a part hereof, and in such drawings like characters of reference denote corresponding parts throughout the several views, of which:—

Figure 1 is a side elevation of a manifolding machine embodying my improvement. Fig. 2 is a top plan view thereof with a portion in section horizontally.

The web supporting means in general, is analogous to the devices shown in my prior Patent, No. 925,351, dated June 15, 1909, as a preferred means of web support, and to which the description for the purposes herein is confined, although it is obvious that the invention herein is applicable to be combined with other forms of yielding web supports. The machine comprises from a general aspect, a base 1 supporting the side frames 2, 3, which may be of sectional form, as illustrated, or otherwise, providing a casing for the webs of paper supported therein. The number of web supports is optional to a particular use of the machine, and the invention herein is applicable to a machine containing a single web of paper, and for a plurality of webs following a mere duplication of the device provided for one of them.

The machine is provided with a writing table 4 connecting the side frames 2, 3, and with such other parts or attachments as may be necessary or desirable, for a particular use of the machine, but as they do not form a part of the invention herein, no disclosure is made of such parts, being well-known in the art.

The webs of paper are rotatively supported within the casing and maintained under tension to a degree required for satisfactorily unwinding the paper in its feed across the writing table, and for other purposes well known in the art. The web supporting means comprises a pair of oppositely disposed arms 5 and 6, each secured to a re-

spective side frame, and each represented as an elastic blade with its free or web supporting end yieldingly urged toward its opposite companion blade, whereby the blades claspingly support the web. Each blade at its free end has a cup-shaped disk 7 secured thereto, either rigidly or rotatively, by a pin or spindle 8. The boss or cup portion of the disk engages into the core of the web of paper 9, as shown in Fig. 2. The tension of the blade 6 is regulated by a set screw 10 screw threaded through the frame 3 and engaging the blade.

Owing to the compactness of the device, with the width of the casing approximating the width of the web, and merely sufficient clearance for web rotation, it is essential or necessary to the insertion or removal of the webs to have both arms yield outwardly, or in a relatively expanding direction sufficiently to freely disengage the disk cups or bosses from the web core. When both supporting members are free to yield in alternate directions, it is difficult to maintain an accurate line of feed of the paper over the writing table, and, therefore, I have provided means for limiting the lateral motion of the web in one direction. This is necessitated by the present demand of machines calling for accurate alinement of the paper and measured stroke delivery. The paper must at all times be presented to properly coöperate with the feeding and arresting devices, and the alinement and registry between the several sheets or strips of a series maintained, without necessitating special adjustment for each sheet length issue or delivery from the machine.

With my improvement, all of the web supports at one side of the machine can be adjusted to aline a relative edge of the various strips, and after adjustment maintain such alinement. This, however, limits the free outward or relatively expanding movement of the supports or holders, which interferes with the free removal or insertion of the web, and, therefore, such alining or setting devices for the roll supports are releasable, for temporarily freeing the supports, but which release does not disturb the accurate setting of the parts when restored to their normal position, so as to avoid adjustment for each web renewal. For this purpose, I provide a bar 12 having one end pivotally secured at 13 to the side frame 2, with its opposite end adapted to lockingly engage with the clamp screw 14, engaging through the notch 15 of the bar 12, and screw threaded into the side frame to clamp the bar in a position across the end of the roll support 5 and engaged therewith through a set screw 16 screw threaded through the bar 12, forming an adjustable abutment for the blade 5 to regulatably limit its outward yielding motion, definitely locating one edge of the paper with respect to the edge of a second web of paper, or proper feeding alinement over the writing table. To renew the paper supply, the clamp screw 14 is released sufficiently to enable the bar 12 to be disengaged therefrom and swung away from the end of the roll support, for removing the web core or inserting a second web of paper, after which the bar 12 is again swung and locked into its normal position. No adjustment, primarily, is necessary for a web renewal, but if the same does not register or aline properly, the set screw 16 can be readily adjusted for such purpose.

In Fig. 1, which shows a machine provided with a plurality of webs, the bars 12 are mounted to swing in different directions, but such feature is merely optional to a particular design of casing to offer convenience and non-interference with other parts of the machine.

Having described my invention, I claim:—

1. A web support comprising a casing, a pair of yielding members operatively supported within said casing adapted to claspingly sustain a web therebetween and a rigid member on said frame for engaging one of said yielding members to stabilize the same when supporting a web.

2. A web support comprising a pair of yielding members oppositely arranged and supported to receive and sustain a web therebetween and a rigid member having an adjustable abutment projecting therefrom for engaging one of said members to stabilize the same when supporting a web.

3. A machine of the class described, a casing, a writing table supported by the casing, a pair of yielding members oppositely supported within the casing below the writing table to claspingly receive and support a web, the web adapted to be fed over the writing table and an adjustable abutment rigidly supported on said casing projecting to engage one of said yielding members to stabilize the same and for alining the web with respect to the writing table for a second web support within the casing and said abutment being movable for releasing said member for a web insertion or removal.

4. A web support comprising a pair of oppositely arranged holder members for compressingly sustaining a web, a cupped disk upon each of said holders respectively to engage with the core ends of said web, a rigid member abuttingly engaging one of said holders to limit its motion in a holder expanding direction and releasable from its holder engagement.

5. In a machine of the class described, a pair of side frames, web supporting means therefor comprising a pair of flexible blades relatively opposite and respectively secured to said frame to compressingly sustain a web, a disk mounted upon the free end of

each blade engaging into the web core, a bar releasably secured to one of said side frames and across an adjacent holder web supporting end, and an adjustable member on said bar, engaging said holder as an abutment therefor.

In witness whereof, I hereunto subscribe my name, as attested by the two subscribing witnesses.

ALBERT KRAUTH.

Witnesses:
F. G. DEISBACH,
M. WM. KRAUTH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."