

M. J. NEVIUS & J. H. WILKINS.

PAGE CLAMP.

APPLICATION FILED JULY 8, 1912.

1,062,659.

Patented May 27, 1913.

2 SHEETS—SHEET 1.

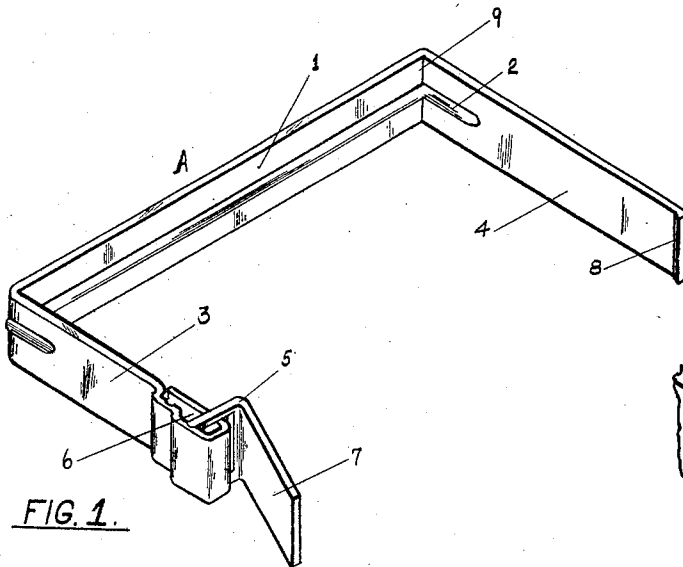


FIG. 1.

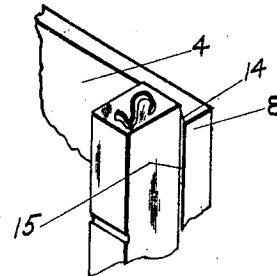


FIG. 3.

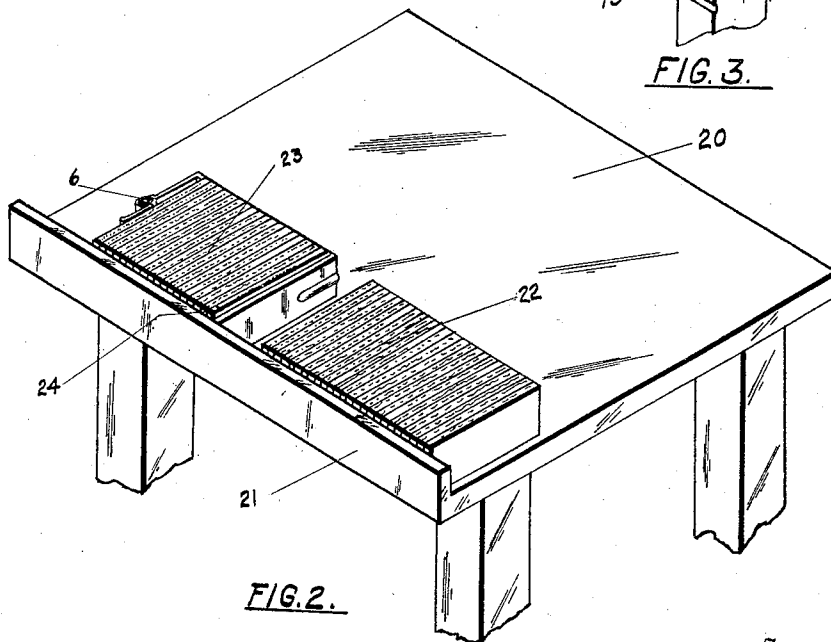


FIG. 2.

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2 SHEETS—SHEET 2.

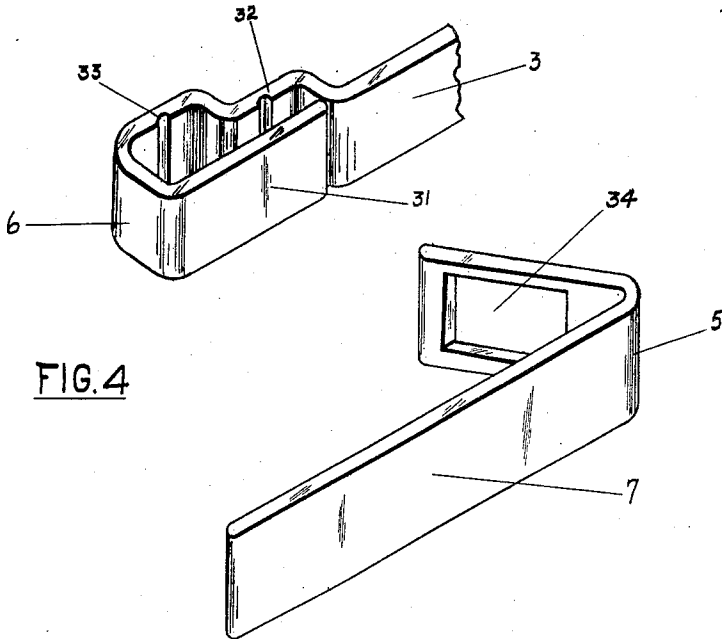


FIG. 4

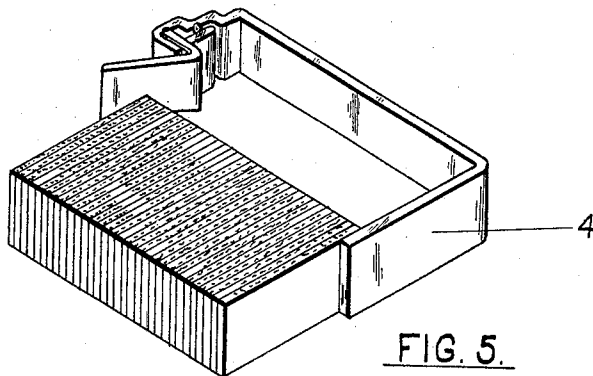


FIG. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

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PAGE-CLAMP.

1,062,659.

Specification of Letters Patent.

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Application filed July 8, 1912. Serial No. 708,178.

To all whom it may concern:

Be it known that we, MARVIN J. NEVIUS and JAMES H. WILKINS, citizens of the United States, and residents, respectively, of Burlington, Des Moines county, Iowa, and Washington, District of Columbia, have invented a new and useful Page-Clamp, of which the following is a specification.

Our invention relates to improvements in page clamps, particularly of the kind used in connection with the product of linotype machines, and an object of the invention, among others, is to provide a clamp to replace the usual tie string commonly in use.

A further object is to provide a device whereby a page of type may be separated from a galley of type, clamped together and handled as a whole with greater quickness and despatch than is possible by the use of tie strings.

Moreover, an object of our device is to provide a clamp simple in construction, durable in use, convenient to operate, and which may be attached to a page of type in less than one-fifth the time taken to attach the usual tie-string. Such a device may be used over and over again, as will be apparent.

We attain these and many other desirable objects which will appear, by means of our invention, one practical embodiment of which is shown in the accompanying drawings and described in this specification.

Figure 1 is a view of a page clamp embodying our invention; Fig. 2 is a view showing a paging table with our invention in use; Fig. 3 is a detail of the folio number holding means; Fig. 4 is a detail showing the method of holding and adjusting the clamping means; and Fig. 5 is a detail showing the operation of the guiding means.

Similar reference numerals refer to similar parts throughout the several views.

This practical embodiment of our invention consists of a clamp A, having but three sides. The device may be preferably made of thin metal, and to obtain the desired strength the material may be ribbed, preferably as at 2. The ribbing may be in any desired manner or may be dispensed with, if desired. The device is preferably made of spring metal. The end 4 of the device is preferably longer than the end 3 for a reason which will be apparent later. At the end 6 of the part 3 is mounted in any de-

sirable way a clamping finger or cam 7 which is so shaped at 5 that when the device is placed around a page of type as at 23 (Fig. 2) and the clamping finger pressed toward the type body, the projection at 5 will snap past the line of centers and become automatically locked in place. Any desired clamping or locking means may be used and attached to the device in any desired manner, that shown being one arrangement which has proved satisfactory in practice. At the end of the part 4 of the page clamp is a slight projection at 8 for holding the folio number as described later.

It is the practice in printing establishments, especially those of considerable size, to set up books, papers, magazines, and other printed matter on linotype machines, in which a line of type is made in one piece. Many of the lines are grouped together in galleys. These galley lengths 22 (Fig. 2) are such as to contain several pages and as they come from the linotype machine, after being proof read and corrected, they are placed on a table to be divided up into page lengths by a person known as the "maker-up". This paging table usually has a top sloping forward as shown at 20 and at the front end of the table is a vertical alinement stop 21. As fast as the galleys are placed on the paging table they are divided up into the desired page lengths by the "maker-up", the page given a number and it is the present practice for another person to then tie a string around this page length and folio number and pile the pages together, four, eight or sixteen or any other desired number of pages, depending upon how many pages are to be locked in the form to be printed. The pages are later placed in a form, the strings untied and the form locked. Later, when the pages are taken out of the form, they are again tied up, considerable time being used in the process.

With the invention and perfecting of the linotype machine there has been a very great increase in the volume of printing, and in making up the linotype matter into page form, the "maker-up" can handle three times the amount he formerly did with the loose type, because of the ease and facility with which it may be managed and, moreover, it is impossible to "pi" it. Years ago the man who tied up the pages and handled them could very easily keep pace with the

"maker-up," but now one man cannot string-tie and handle the pages fast enough to keep up and many times two men are needed to tie up the pages. With the string, as with all of the proposed substitutes for the string up to this time, all four sides of the type must be encircled, thus necessitating that the page of type be pushed away from the alining stop before the front side can be gotten at. With our invention the side 4 is used to guide the clamp so that it may be placed in position with a minimum of effort and without moving the type from the alining stop. The man tying up the type brings the side 4 up against the end of the page as shown in Fig. 5 and the device is then placed in position on the type without fumbling or adjusting, the finger 4 sliding along the end of the type and guiding the clamp A directly into place in the plane of the clamp. After the folio figure is in position and the clamp is in place, the clamping finger at 6 is operated, holding the whole firmly together. This rapidity of operation (less than one-fifth of the time taken to string-tie a page) is due in part to the use of only three sides or, in other words, to the U-shape of the member A, which shape is made possible by the provision of a folio figure holding means or projecting lip at 8 (Fig. 3). The particular arrangement shown consists of a slight projection 14 which embraces the corner of the folio number and when the clamping means at 6 is operated, the surface 15 exerts a wedging action crowding the folio number into place.

In paging the type, as a rule every page is numbered, some of them having the number inserted at the point 9 (Fig. 1) and some at the point 8, depending upon whether the page when printed is the right or left hand page. The folio number is held very readily and without difficulty at 9 between the sides of the clamp and the body of the type. When, however, the folio number is placed at 8 special provision for holding it is necessary, as above described, since otherwise it might fall out the open side. The projection 8 is but very slight and does not hinder the putting on of the clamp in any way.

The particular clamping means shown at 6 and in detail in Fig. 4 will now be described. The pages of type may differ in length a little from page to page on some work. This difference, which is usually very slight, might under some circumstances be sufficient to prevent the clamp slipping easily into place. To allow for this difference, the bearing of the clamping finger 7 is stepped, as at 32 and 33, so that for a short page the bearing may be at 32, and if the page is slightly longer, the bearing may be at 33. The step 33 being a little farther out on the arm 3 allows that arm to give way a little more than when the bearing is at 32,

and this springing action, together with the additional room given by the step down from 32 to 33, will be sufficient to allow for the additional space taken by the slightly longer page.

To assemble the parts of the clamping device special provision is made so as to do away with any extra parts. The end 31 of the arm 3 is bent as shown in Fig. 4 and touches the inner part of the arm, this part of the arm 3 being offset so that the inner face is all in the same plane, no projection being made which might hinder the clamp from slipping easily into place. Due to the spring tempering of the metal, the end 31 may be sprung forward to allow the finger 7 to be placed in position, the end 31 passing through the opening 34 in the finger 7 and then the end 31 springs back against the side 3, securely holding the finger 7 from accidental detachment.

It will be seen that our device consists of but two simple parts, in its preferred form, fastened to each other without the use of screws, rivets or any similar trouble-giving pieces.

It is evident that any other folio number holding means may be used, that shown in the drawing being merely one practical means which has proven satisfactory. Other methods of holding the clamping means may be used if desired.

With the device as described it is possible for one man to page the type faster than two men can do the same work using tie strings. We do not, however, desire to limit ourselves to the exact details of construction of the embodiment of our invention shown in the drawings, and various alterations may be made therein without departing from the spirit of the invention as defined by the scope of the appended claims.

What we desire to claim as our invention is:—

1. A page clamp comprising three sides, a movable clamping cam on one side and a type-holding means on one of the other sides, two of the sides being substantially parallel and one of the same being longer than the other to guide the clamp into clamping position.

2. In a device of the class described, means comprising a body member having a clamping cam movably attached thereto for clamping a form of type and a projecting lip forming part of said body member for holding a single type in association with and as a part of said form of type, as and for the purpose specified.

3. An article of manufacture, comprising a U-shaped member having a projecting lip at one extremity of one leg of the said member and a clamping device at one extremity of the other leg, substantially as described.

4. In a type-clamping device, a reinforced

U-shaped member comprising a side member and two other members, one of said other member terminating in a type alining and holding means and a clamping device 5 attached to the other of said other members, as and for the purpose specified.

5. A page clamp comprising an elastic member having at one extremity an inwardly projecting rigid lip and near the 10 other extremity a pivoted clamping cam to coöperate with said lip, whereby a type form and a loose type may be clamped together.

6. A page clamp comprising a body member, a clamping finger having an opening 15 therethrough and springs means on said body member projecting through said opening whereby said finger is held in place, said body member comprising a U-shaped 20 frame with one leg of the U longer than the other to serve to guide the clamp around the form.

7. In a page clamp adapted to be slid 25 around a page of type, a clamping member including a pivoted cam and means for varying the tension exerted on said clamping member by the page of type, said means also varying the clamping size of said 30 clamping member, said clamping member comprising a three-sided U-shaped frame, the open end of the frame being adapted to receive the page of type as the clamp is

slid around the page in the plane of the clamp.

8. A page clamp adapted to be slid around 35 a page of type, said clamp comprising two members, one of said members terminating on one side in type-holding means and on the other side in spring means for holding 40 the other of said members, said last-named member operating to cam the type against the other member, said first member consisting of a U-shaped frame adapted to be slid 45 around the page in the plane of the clamp.

9. A page clamp comprising a U-shaped 45 member terminating at one end in a projection and at the other end in a spring loop, a clamping finger having an opening therethrough and a stepped bearing in said 50 loop for said finger, whereby when said loop is passed through said opening said finger is held in place on said bearing.

10. A page clamp comprising a U-shaped 55 member having one leg longer than the other leg, the open end of the U being adapted to receive the page as the clamp is moved in its plane around the page, said first leg being adapted to act as a guide in this movement.

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