Feb. 4, 1930. F. J. REILLY 1,745,767

CLIP

Filed Dec. 21, 1928 2 Sheets-Sheet 1

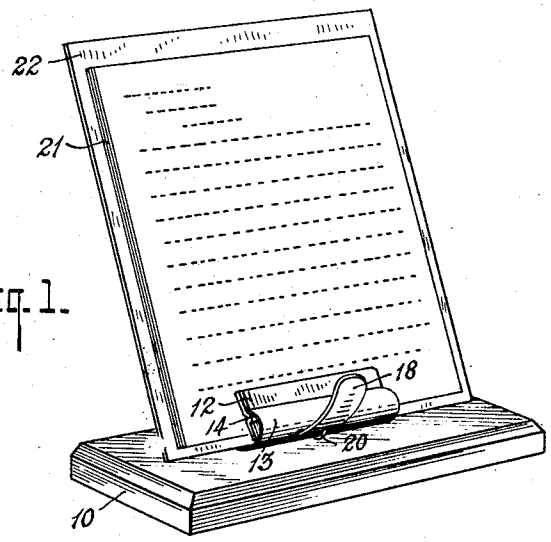


Fig. 1.

Fig. 2.

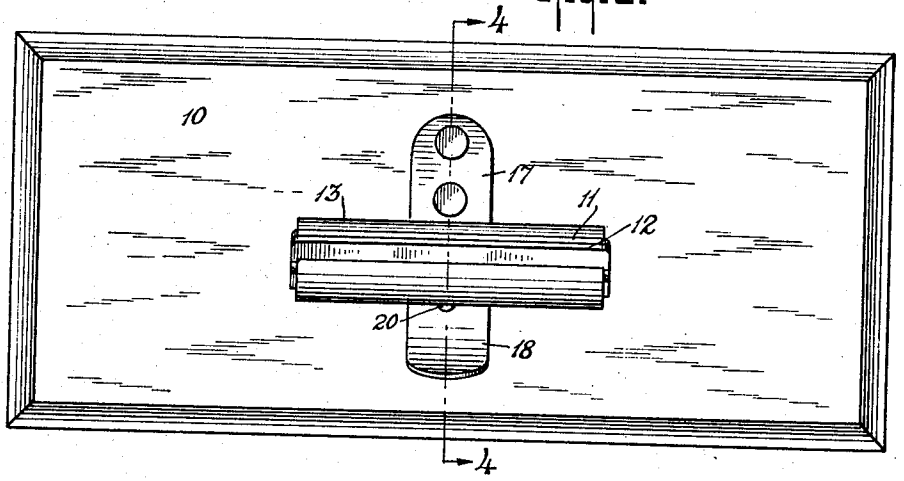
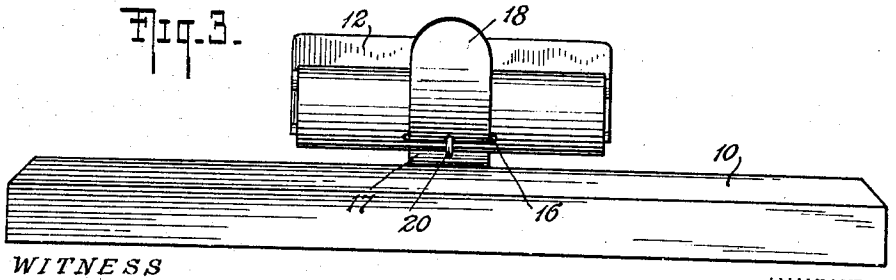


Fig. 3.



WITNESS

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Fig. 4.

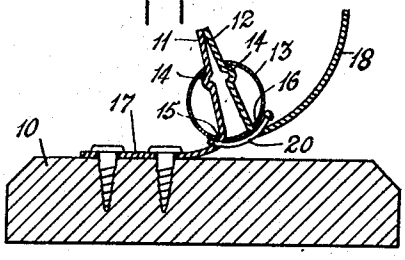


Fig. 5.

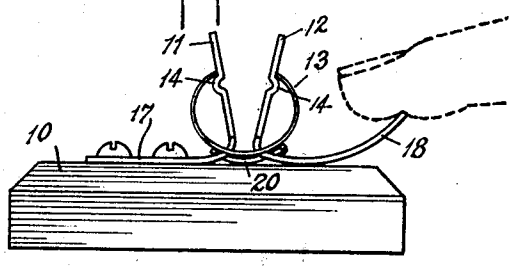


Fig. 6.

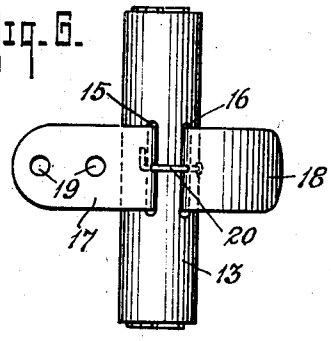
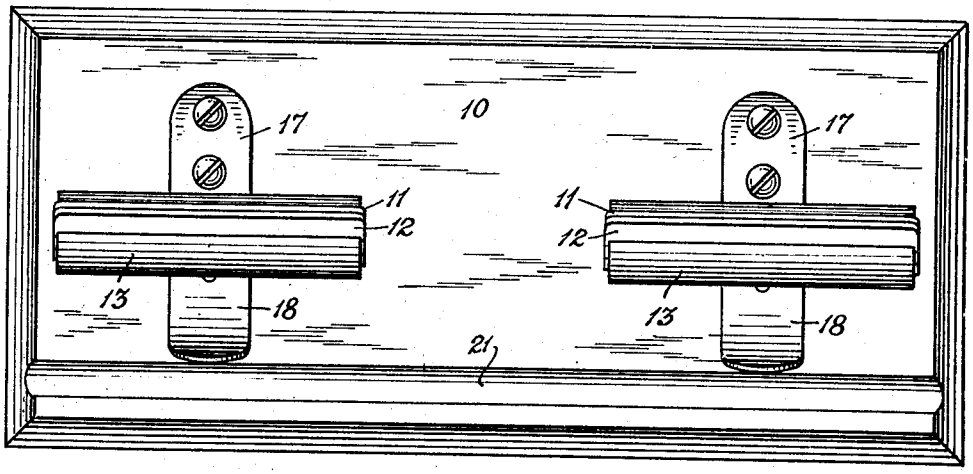


Fig. 7.



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UNITED STATES PATENT OFFICE

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CLIP

Application filed December 21, 1928. Serial No. 327,495.

My invention relates to clips and more particularly to clips or clamps adapted to hold sheets of paper, books, etc. in convenient upright position upon a table in front of a reader, the objects and advantages of which will appear hereinafter.

In the accompanying drawing forming part of this specification and illustrating by way of example a form of my invention without defining its limits, Fig. 1 is a perspective view showing my improved clip in use and supporting a number of sheets of paper; Fig. 2 is a plan view of the clip and its support; Fig. 3 is a front view of the same; Fig. 4 is a section along the line 4—4 of Fig. 2; Fig. 5 shows the clip in opened position; Fig. 6 is a bottom plan view of the clip, and Fig. 7 illustrates the arrangement of a plurality of clips for supporting a wide sheet or a book in front of a reader.

In the form of the invention illustrated my improved clip is mounted upon a support 10 of any suitable kind. This support may be an easily transportable block of wood or it may comprise the top of a desk or a table to which my improved clip may be attached in the manner about to be described. My improved clip is composed of a pair of clamping jaws or members 11 and 12 which are engaged by the ends of a split tubular spring 13 and urged by the latter into clamping position. The clamping jaws may be bent or beaded, as shown at 14, directly below the point at which they are engaged by the spring to prevent upward movement of such jaws relatively to the spring. The tubular spring is apertured adjacent the lower ends of the jaw members, as indicated at 15 and 16, through which apertures extensions 17 and 18 of the jaw members 11 and 12 respectively are adapted to pass. The extensions 17 and 18 are bent and curved away from the body of the jaws 11 and 12, the outer end of the extension 18 being curved upwardly as clearly shown in Figs. 1 and 4. The extension 17 serves as an arm by means of which the clip may be attached to a support; to such end it is provided with apertures 19 through which are adapted to pass screws or other suitable fastening means. As indicated in Fig. 4, the extension or arm 17 is so bent that when the clip is attached to a horizontal support the jaws assume such a position that the plane of the fixed or rear jaw 11 lies in a so-called "reading" angle, i. e. an angle which in the preferred arrangement is approximately 75° with the horizontal. The angle between the arm 17 and the jaw 11 is such that the clip when fastened to the support 10 will be so arranged, with reference to the clip-supporting surface and the position, in use, of said support as to hold a printed or equivalent object at a reading angle approximately 75° with the horizontal.

The extension 18 projects forwardly and upwardly of the clamp and is adapted to serve as a finger piece, which upon depression (see Fig. 5) operates to separate the jaw members 11 and 12 so that a sheet of paper or other material may be placed therebetween. Upon release of the finger piece the jaws are urged by the spring 13 against such sheet and clamp the same firmly between them.

In order to prevent the extensions 17 and 18 from working their way into the interior of the tubular spring, suitable means are provided for fixing such extensions relatively to the spring. In the form of the invention illustrated the extensions are apertured close to and externally of the spring 13 to receive a pin 20 which is curved around the portion of the spring between the openings 15 and 16.

Fig. 1 shows my improved clamp employed to hold a number of sheets of paper 21 against a backing 22. It will be seen that the angular position of the jaws 11 and 12 is such that the paper is held in a convenient upright position in front of a reader. The clip is extremely simple in construction, is inexpensive to manufacture, and is easily operated to clamp and release one or more sheets of paper. The jaws and their extensions may be made of heavy sheet metal which will insure their use for an indefinite period.

My novel clamp may be mounted upon a portable block 10 as shown in the drawings. As can be seen from Fig. 5, the clamp is so mounted that the top surface of such support acts as a stop to limit the opening movement of the clamps and thereby prevents

undue stress upon the spring 13. When so mounted it is highly adapted for use by copyists, draftsmen, typists, musicians, etc. as it holds the sheet or other matter at a convenient angle and can be shifted to any desired position.

The clip may also be more or less permanently attached to a table or desk, particularly to the desks in schoolrooms. Such desks are usually very small and a student frequently finds it difficult to assume a proper writing posture when it is necessary for him to read or refer to a book or sheet of paper placed upon the desk. In such situations my improved clip is of great advantage as not only does it leave more room on the table for the arms of the student and the sheet of paper being written upon, but it holds the paper to which the student makes reference during the course of his writing, and which may be a question paper, in such a position that the student is forced to assume a proper writing posture. Furthermore, the tendency of many pupils to slouch in their seats and hold their faces very close to the desks while writing is prevented by the use of my improved clip, since to read properly a paper clamped by the clip the student must hold his head erect. It is well known that where a student is compelled to read matter which is located farther from the eye than the sheet upon which he is writing, the eye must continually adjust itself, i. e. focus itself to such different distances, which results in considerable eye-strain. Such eye-strain is avoided by the use of my improved clip as the distance from the eye of the paper held by such clip can be made the same as that of the paper upon which the student is writing, and the arc through which the eye travels in looking from one paper to the other be reduced to a minimum. The clip may be fastened permanently to the middle of the desk at the farther side thereof and is not in the way when not in use. Where screws are employed to fasten the clips they may be filed down as shown in Figs. 2 and 4 to prevent removal by the students.

The backs of pads may be used to serve as a backing for thin sheets of paper, or else the jaw 11 may be provided with an upward extension designed to serve as such backing.

It will be clear from the above that my improved clip affords not only a simple and inexpensive means for holding sheets of paper upon a horizontal support but also operates to insure good posture, good writing, comfort and health.

My novel clip may be used also to support books and similar articles. For this purpose I prefer to mount a plurality of clips in alignment as shown in Fig. 7. The clips in such case may be employed to clamp the backs of the book while the left-hand and right-hand pages are prevented from turning forwardly by the finger pieces 18. It will be understood that in this form of the device the finger pieces are so curved that they extend sufficiently above the bottom edge of the pages to hold the same and yet do not form any serious obstruction when a page is turned over by the reader. The support may, if desired, be provided with a pencil groove 21.

Variations may be resorted to within the scope of the appended claims without departing from the spirit of the invention.

I claim:

1. The combination with a support of a clip comprising a pair of clamping jaws, an arm rigidly connected with one of said jaws and attached to said support, resilient means for urging said jaws toward each other to clamp an article therebetween, and a finger piece normally spaced from the support and connected to the other of said jaws and operable to separate the jaws, said resilient means including a tubular spring having apertures therein through which said arm and finger piece pass, and means for holding said arm and finger piece in position relatively to said spring.

2. The combination with a support of a clip comprising a pair of clamping jaws, an arm rigidly connected with one of said jaws and attached to said support, resilient means for urging said jaws toward each other to clamp an article therebetween, and a finger piece normally spaced from the support and connected to the other of said jaws and operable to separate the jaws, such resilient means including a tubular spring having apertures therein through which said arm and finger piece pass, and a pin passing through said arm and finger piece and adapted to hold the same in position relatively to said spring.

3. The combination with a support having a clip-supporting surface of a clip comprising a pair of clamping jaws, an arm rigidly connected with one of said jaws and attached to said support, resilient means for urging said jaws toward each other to clamp an article therebetween, and a finger piece connected to the other of said jaws and operable to separate the jaws, such resilient means including a tubular spring having apertures therein through which said arm and finger piece pass, said arm being so disposed with reference to said clip-supporting surface and the position, in use, of said support and with relation to that jaw which is connected with said arm that the jaws make an angle of approximately 75° with the horizontal.

4. The combination with a support of a clip comprising a pair of jaw members, a tubular spring engaging said jaw members and urging the same into clamping position, an arm fixed to one of said jaw members and attached to said support, and a finger piece normally spaced from the support and connected to the other of said jaw mem-

bers and operable to separate the latter, said tubular spring having apertures therein through which said arm and finger piece pass, said arm and said finger piece being bent at an angle to the clamping surfaces of the respective jaw members.

5. The combination with a support of a clip comprising a pair of jaw members, a tubular spring engaging said jaw members and urging the same into clamping position, an arm fixed to one of said jaw members and attached to said support, a finger piece normally spaced from the support and connected to the other of said jaw members and operable to separate the latter, said tubular spring having apertures therein through which said arm and finger piece pass, said arm and finger piece being at an angle to the clamping surfaces of the respective jaw members, and means for preventing relative movement between said arm and finger piece and said tubular spring.

6. As an article of manufacture a clip comprising a pair of clamping jaws, a tubular spring engaging said jaws to urge the same into clamping position, said spring having a pair of apertures therein, an extension on each of said jaws passing through said apertures, the portions of said extensions external of said spring being bent at an angle to the respective jaw members, and means engaging said extensions to prevent relative movement between the same and said spring.

7. As an article of manufacture a clip comprising a pair of clamping jaws, a tubular spring engaging said jaws to urge the same into clamping position, said spring having a pair of apertures therein, an extension on each of said jaws passing through said apertures, the portions of said extensions external of said spring being bent at an angle to the respective jaw members, and means engaging said extensions externally of said spring to prevent relative movement between the extensions and said spring.

8. The combination with a support having a clip-supporting surface of a clip comprising a rear jaw member and a front jaw member movable relatively thereto, said clip being arranged with reference to said clip-supporting surface and the position, in use, of said support to hold a printed object at a reading angle approximately 75° with the horizontal, means to secure the clip to said support, a finger piece operable to move the front jaw away from the rear jaw and permit the insertion or removal of such object, the said jaws being so arranged that the object clamped between the jaws will be positively supported by the rear jaw and its lower edge will bear against the front jaw adjacent to the fulcrum of the latter.

FREDERICK J. REILLY.