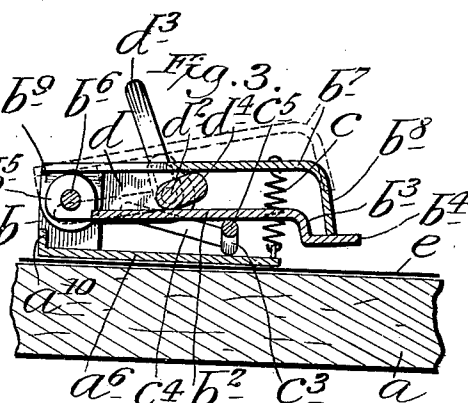
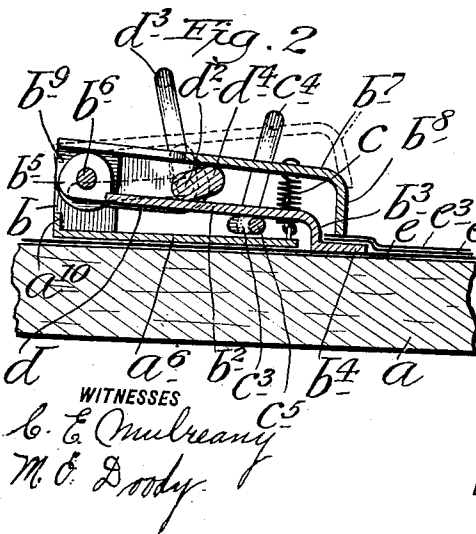
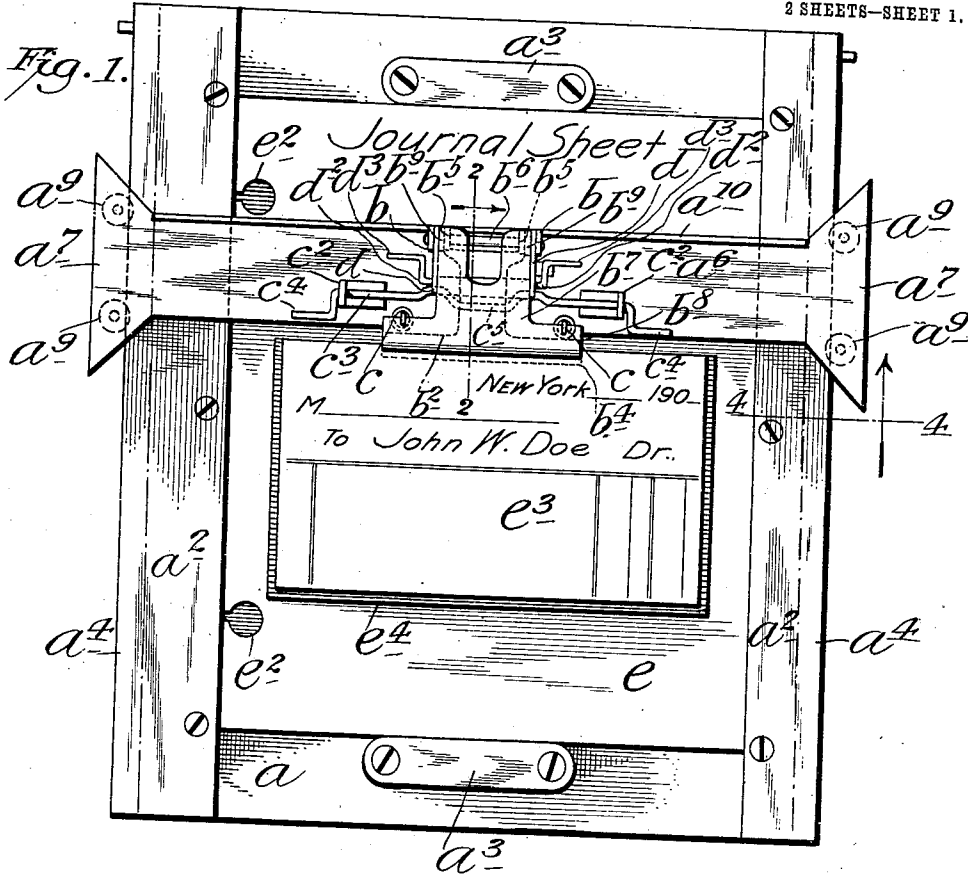


DE WITT C. GRAY.
PAPER HOLDING CLAMP.
APPLICATION FILED DEC. 23, 1907.

898,460.

Patented Sept. 15, 1908.

2 SHEETS—SHEET 1.



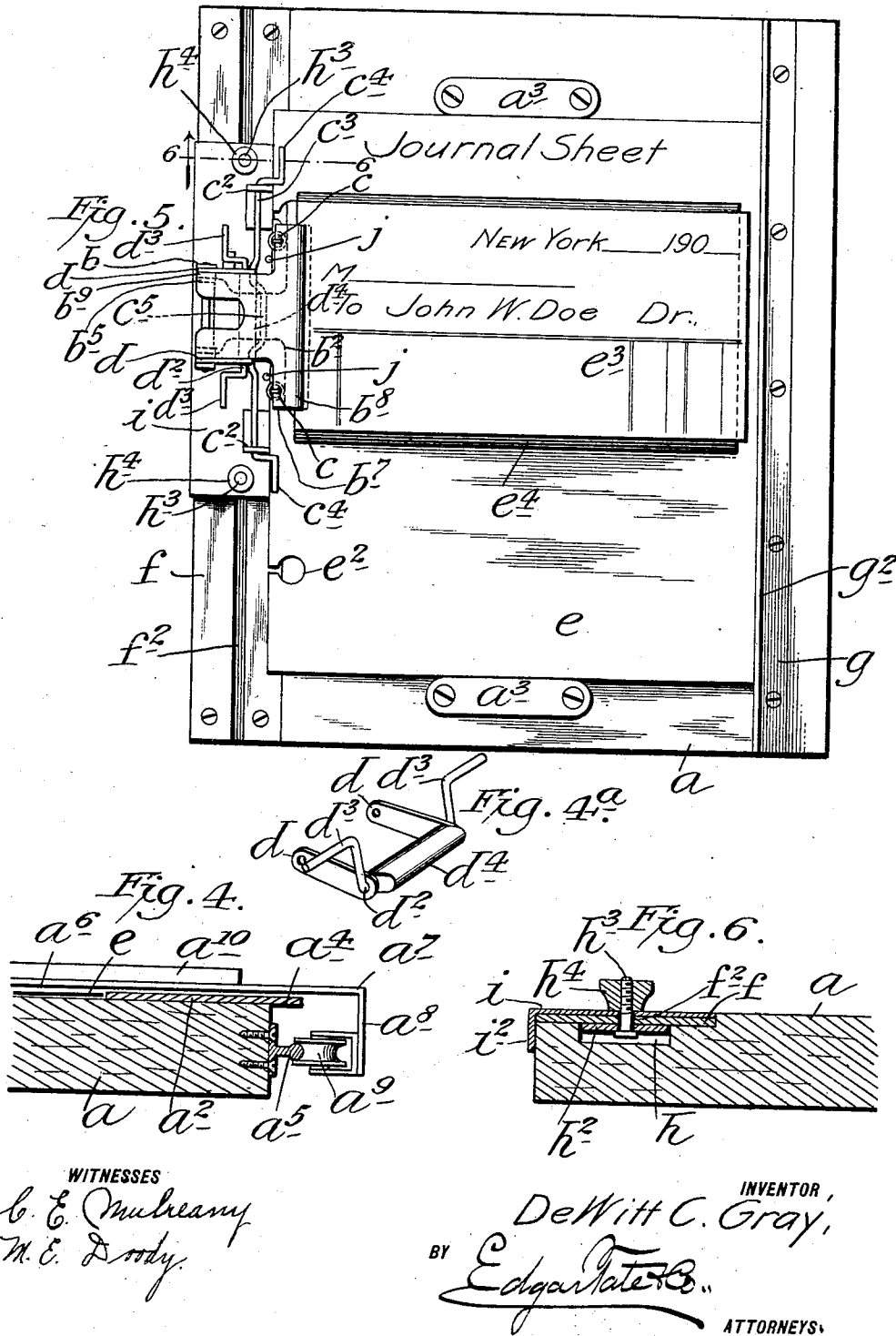
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2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

DE WITT C. GRAY, OF RAHWAY, NEW JERSEY.

PAPER-HOLDING CLAMP.

No. 898,460.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed December 23, 1907. Serial No. 407,840.

To all whom it may concern:

Be it known that I, DE WITT C. GRAY, a citizen of the United States, and residing at Rahway, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Paper-Holding Clamps, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to paper holding clamps or devices; and the object thereof is to provide a paper holding clamp or device which is designed particularly for use as a hand billing device, or for holding paper and carbon sheets in recording bills on a journal or other record sheet.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which;—

Figure 1 is a plan view of one form of my improved paper holding clamp or device, Fig. 2 a partial section on the line 2—2 of Fig. 1, Fig. 3 a view similar to Fig. 2 but showing the parts in a different position, Fig. 4 a partial section on the line 4—4 of Fig. 1, Fig. 4^a a perspective view of a detail of the construction, Fig. 5 a view similar to Fig. 1, but showing another form of construction, and;—Fig. 6 a partial section on the line 6—6 of Fig. 5.

In the practice of my invention as shown in Figs. 1 to 4 inclusive I provide a board *a* having parallel plates *a*² secured to the opposite sides thereof and retaining cleats or similar devices *a*³ secured in a parallel position to the top and bottom portions of the board *a*.

The plates *a*² are preferably projected beyond the side edges of the board *a* and form projecting flanges *a*⁴ as shown in Fig. 4, and the board *a* is also provided at its opposite sides with rails *a*⁵, and mounted transversely of said board is a metal strip *a*⁶ having end portions *a*⁷ which project beyond the plates *a*² and are provided with depending portions *a*⁸ which carry rollers *a*⁹ adapted to bear on the rails *a*⁵, and the transverse metal strip *a*⁶ is preferably provided at its upper edge with a flange *a*¹⁰ designed to give strength and rigidity thereto.

Connected with the metal strip *a*⁶ centrally thereof are upwardly directed ears *b*, to which is pivoted a bottom jaw plate *b*² which

extends forwardly or downwardly across the metal strip *a*⁶, and the front or lower edge portion of which is provided with a laterally extended and downwardly directed jaw member *b*³ having a horizontal portion *b*⁴ adapted to bear on the board *a*, and said jaw plate is provided at its upper or rear edge with ears *b*⁵ through which is passed a rod *b*⁶ which connects the jaw plate *b*² with the ears *b*, and a top jaw plate *b*⁷ is also pivoted on or mounted on the rod *b*⁶ and ranges forwardly or downwardly over the jaw plate *b*², and is provided at its front or lower edge with a laterally extended and downwardly directed jaw member *b*⁸ adapted to bear on the horizontal jaw member *b*⁴ and the jaw plate *b*⁷ is provided with ears *b*⁹ through which the rod *b*⁶ passes. Connected with the opposite side portions of the laterally extended jaw member *b*⁸ are springs *c* which normally serve to force or draw the jaw member *b*⁸ and the jaw plate *b*⁷ downwardly, and the jaw plates *b*² and *b*⁷ with their corresponding jaw members *b*⁴ and *b*⁸ constitute the clamp proper.

At the opposite sides of the clamp proper or of the jaw plates *b*² and *b*⁷ thereof are keepers *c*² which are secured to the metal strip *a*⁶, and in which is mounted a rod *c*³ having end cranks *c*⁴, and the central part of the rod *c*³ is provided with a loop portion *c*⁵ adapted to bear on the bottom of the jaw plate *b*² and force the same upwardly when the rod *c*³ is turned by means of one of the crank members *c*⁴.

Mounted on the rod *b*⁶ are links *d* which range forwardly or downwardly and in which is mounted a horizontal rod *d*² which ranges between the jaw plates *b*² and *b*⁷ and transversely thereof, and is provided at its opposite ends with cranks *d*³ by which it may be operated, and said rod *d*² is provided centrally with a laterally directed member *d*⁴ adapted to bear on the bottom of the jaw plate *b*⁷ and raise the same against the operation of the spring *c* when the cranks *d*³ are turned backwardly into the position shown in dotted lines in Fig. 2. I have also shown at *e* in Figs. 1, 2 and 3 a journal or other record sheet adapted for use in what is known as a detachable sheet binding, for which purpose said sheet is provided at its left hand edge with apertures *e*², and I have also shown in Figs. 1 and 2 a bill or similar sheet *e*³ and a carbon sheet *e*⁴.

One of the functions of the plates *a*² at the opposite sides of the board *a* is to hold the

record sheet *e* in proper position, and prevent lateral movement thereof, and the cleats or other retaining devices *a*³ serve to hold said record sheet against vertical or longitudinal movement on the board *a*.

When the rods *c*³ and *d*² are turned forwardly by means of the cranks *c*⁴ and *d*³ as shown in Fig. 2, the jaw plates *b*² and *b*⁷ and their corresponding jaw members *b*⁴ and *b*⁸ will be in the position shown in full lines in Fig. 2, and said jaw members will hold the record sheet *e* stationary, and will also hold the bill sheet *e*³ and carbon sheet *e*⁴ in proper position, and the contents of the bill sheet *e*³ may be copied onto the record sheet *e*² in the usual manner, or as will be readily understood.

It will also be understood that the entire clamp device together with the transverse metal strip *a*⁶ may be adjusted on the board *a*, and in order to do this it is necessary to turn the rod *c*³ backwardly into the position shown in Fig. 3, which operation raises both of the jaw members *b*⁴ and *b*⁸ as shown in Fig. 3, and at this time the clamp and transverse metal strip or plate *a*⁶ may be adjusted on the board *a* to any desired extent and a new record sheet *e* may be slipped into position if desired.

In order to place the carbon sheet *e*⁴ and bill sheet *e*³ in position, the rod *d*² must be turned backwardly into the position shown in dotted lines in Fig. 3 in which position the jaw members *b*⁴ and *b*⁸ are separated as shown in dotted lines in said figure, and this may be done when the jaw member *b*⁴ is in the position shown in Fig. 2 or in the position shown in Fig. 3, and when the parts are in the position shown in Fig. 3 the clamp may be adjusted on the board *a* without disturbing the record sheet *e*.

There are four operative positions for the jaw members *b*⁴ and *b*⁸, one of which is shown in full lines in Fig. 2 when said jaw members are pressed together, and the jaw member *b*⁴ is pressing on the board *a*, the second position of said jaw members is when the jaw member *b*⁸ is raised as shown in dotted lines in Fig. 2, which operation is accomplished by turning the rod member *d*² backwardly, the third position of the jaw members *b*⁴ and *b*⁸ is shown in full lines in Fig. 3 when both of said jaw members are raised and the top jaw member *b*⁸ is bearing on the bottom jaw member *b*⁴, and the fourth position of said jaw members is that in which both of the jaw members are raised and the top jaw member *b*⁸ separated from the bottom jaw member *b*⁴.

In the construction shown in Figs. 5 and 6, the board *a* is provided at its opposite sides with plates *f* and *g*, the plate *f* being at the left hand side of said board and being provided with a longitudinal slot *f*², and the plate *g* at the right hand side of the board

being provided at its inner edge with a raised flange *g*².

The plate *f* is counter-sunk in the top of the board *a* as clearly shown in Fig. 6, and the top of said board is provided beneath said plate with a longitudinal recess *h* in which is placed a spring or other plate *h*², upwardly through which are passed screws *h*³ provided at their upper ends with thumb nuts *h*⁴.

A sliding plate *i* is mounted on the plate *f* and the screws *h*³ are passed therethrough, and the clamp device proper constructed as shown in Figs. 1 to 3 inclusive is mounted on the plate *i* exactly the same as in the construction shown in Figs. 1 to 3, the only difference in this connection being that the plate *i* takes the place of the transverse strip or plate *a*⁶, and is adjustable longitudinally of the left hand side of the board *a*, and the carbon sheet *e*⁴ and bill sheet *e*³ are connected with the clamp at the left hand edge instead of at their top edges. In this form of construction the plate *i* is provided with pins *j* which are parallel with the inner edges of the keepers *c*², and these pins and said keepers form guides or retainers for the record sheet *e* at the left hand side of the board, while the flange *g*² of the plate *g* forms a guide or retainer for said sheet at the right hand side of the board, and it will be observed from Fig. 6 of the drawing that the plate *i* is also counter-sunk in the top of the board *a*, and said plate is preferably provided at its left edge with a depending flange *i*².

By loosening the thumb nuts *h*⁴, the clamp device shown in Fig. 5 may be adjusted longitudinally of the left edge portion of the board *a* as will be readily understood, or said clamp device may be locked to said board whenever desired.

As hereinbefore stated the clamp device shown in Fig. 5 and connected with the plate *i* is the same in all respects as the clamp device shown in Figs. 1 to 3 inclusive and comprises the bottom and top jaw plates *b*² and *b*⁷ having jaw members *b*⁴ and *b*⁸, the spring *c* connected with the top jaw plate and with the plate *i* in Fig. 5 and the plate *a*⁶ in Figs. 1 to 3, the rods *c*³ and *d*² by which the jaw members are operated and the link members *d* by which the rod *d*² is supported.

Although I have described my invention as applicable to paper holders designed for use in copying bills, or as a hand billing device or machine, it will be apparent that my said improvement may be used for holding papers of any kind or class and for any purpose for which the same is applicable. It will also be seen that the depending part *b*³ of the bottom jaw plate *b*² with which the horizontal jaw member *b*⁴ is connected forms a stop to limit the extent to which the bill sheet *e*³ and the carbon sheet *e*⁴ are or may be inserted into or between the jaw members

5 b^4 and b^8 , but my invention is not limited to this particular form of construction, and any suitable device or devices may be provided for this purpose; and various other changes in and modifications of the construction described, may be made, within the scope of the appended claims, without departing from the spirit of my invention or sacrificing its advantages.

10 Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

15 1. In a paper holding device of the class described, a base board, a strip or plate adjustable thereon and a clip connected with said strip or plate and comprising two jaw members pivotally connected with said strip or plate one above the other, springs for forcing the top jaw member downwardly so that it will bear on the bottom jaw member, the bottom jaw member being also adapted to bear on said board, means for raising both of said jaw members together, and means for raising the top jaw member above the bottom jaw member.

20 2. In a paper holding device of the class described, a base board, a strip or plate adjustable thereon, ears connected with said strip or plate, two jaw plates pivoted to said ears one above the other, the bottom jaw plate being provided with a horizontal jaw member, and the top jaw plate with a depending jaw member adapted to bear thereon, means for forcing the top jaw plate downwardly, means for raising both of said jaw plates when said jaw members are in contact, and other means for raising the top jaw plate independently of the bottom jaw plate and separating said jaw members.

40 3. A paper holding device of the class de-

scribed, comprising a base board, a slide plate mounted thereon and provided with ears, top and bottom jaw plates pivoted between said ears, the bottom jaw plate being provided with a horizontal jaw member, 45 and the top jaw plate with a depending jaw member adapted to bear thereon, springs connected with said slide plate and with said top jaw plate and adapted to force the same downwardly, a rod mounted beneath the bottom jaw plate and provided with end cranks by which it may be turned, and with a central portion adapted to raise the bottom jaw plate, and another rod mounted between said jaw plates and provided with end cranks 55 by which it may be turned and with a central portion adapted to raise the top jaw plate.

4. A paper holding device of the class described, comprising a base plate or board, a slide plate mounted thereon, two jaw plates 60 pivotally connected with said slide plate one above the other, the bottom jaw plate being provided with a horizontal jaw member adapted to bear on the base board, and the top jaw plate with a depending jaw member 65 adapted to bear on the horizontal jaw member, means for depressing the top jaw plate, a device for raising the bottom jaw plate and the upper jaw plate when the jaw members are in contact, and another device for raising 70 the top jaw plate independently of the bottom jaw plate.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 21st 75 day of December 1907.

DE WITT C. GRAY.

Witnesses:

C. E. MULREANY,
M. E. DOODY.