No. 775,659. PATENTED NOV. 22, 1904.

H. JORGENSEN.

CABINET MAKER'S CLAMP.

APPLICATION FILED MAR. 9, 1904.

NO MODEL.

Fig. 1.

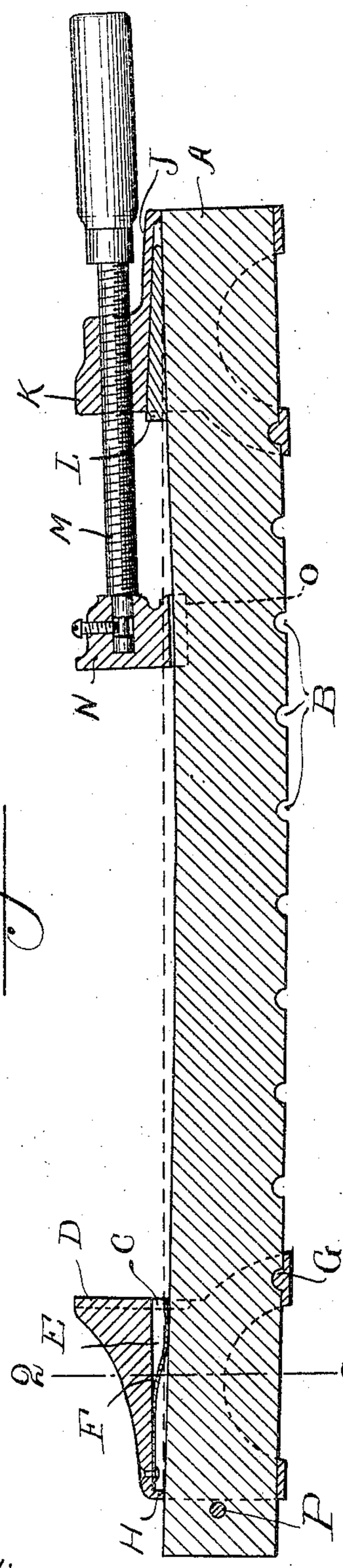
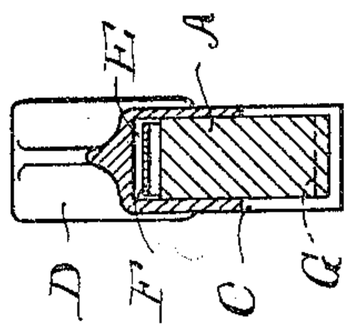


Fig. 2.



Witnesses:

E. F. Wilson

F. Schlotfeld.

Inventor:

Hans Jorgensen

By Rudolph Kuttz

Attorney.

No. 775,659. Patented November 22, 1904.

UNITED STATES PATENT OFFICE.

HANS JORGENSEN, OF CHICAGO, ILLINOIS.

CABINET-MAKER'S CLAMP.

SPECIFICATION forming part of Letters Patent No. 775,659, dated November 22, 1904.

Application filed March 9, 1904. Serial No. 197,273. (No model.)

To all whom it may concern:

Be it known that I, HANS JORGENSEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cabinet-Makers' Clamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a novel construction in a cabinet-makers' clamp, the object being to provide a device of this kind in which the jaws are capable of being separated or brought together to receive work of any desired width and which is light, simple, and durable in construction and efficient in operation; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a central longitudinal section of a clamp constructed in accordance with my invention. Fig. 2 is a transverse section of same on the line 2 2 of Fig. 1.

Referring now to said drawings, A indicates a bar of rectangular cross-section which is preferably made of a hard wood having slight elasticity and provided in its lower face with notches B at regular intervals. Mounted on said bar A and longitudinally movable thereon is a sleeve C, carrying a jaw member D, one face of which extends practically perpendicular to the upper face of said bar A. The lower and side walls of said sleeve are partially cut away, as indicated in dotted lines in Fig. 1, in order to render said member lighter, and between the lower face of the jaw D and the upper face of said bar A, I provide space E for the reception of a flat spring F, which is adapted to normally hold said jaw portion D at the upper limit of its movement relatively to said bar A. On the upper face of the forward portion of the lower wall of said sleeve C is a projection G, which is adapted to enter said notches B, said projections being normally held in engagement with one of said notches by means of said spring F. At the rear end of said sleeve C, I provide a downwardly-extending projection or flange H, which is adapted to rest upon the upper face of said bar A to hold the perpendicular face of said jaw portion D against tilting. At the other end of such bar A, I provide an oppositely-disposed sleeve J, coinciding in form and construction with said sleeve C in every respect except that the flat spring F is omitted and said sleeve J slightly enlarged at its forward end to provide a wedge-shaped space between the jaw member K thereof and the upper face of the bar A for the reception of a wedge L, which serves to hold said member securely in position on said bar A. The said member K is provided with a longitudinally-threaded opening to receive the screw-shaft M, upon the forward end of which a jaw member N is rotatably mounted in any suitable manner, said member N being adapted to rest upon the upper face of said bar A and being provided on its side edges with flanges O, adapted to engage the sides of said bars to hold said members N against revolution.

When material is clamped between the jaws D and N, the pressure exerted upon said bar A tends to bend the same, so that the upper face thereof becomes slightly convex, and this action is particularly undesirable when the matter clamped is of great width, so that said jaws D and N are widely separated. The pressure exerted upon the matter occupying wide space is particularly adapted to bend said bar A, and such action frequently results in causing such matter clamped to buckle and spring out from between such jaws. To overcome this, I make said bar on a slight curve, so that the upper face thereof is slightly concave, the result being that when matter to be clamped is inserted and pressure exerted thereon such pressure will cause said bar A to become straight, as indicated by dotted lines in Fig. 1, and buckling, and consequently springing out, is obviated.

In use the sleeve C is normally adjusted relatively to said sleeve J, the latter being preferably mounted in a given position on the bar A and retaining such position unless a change is desirable, owing to conditions under which work must be done, and to prevent said

member C from slipping rearwardly from said bar A, I provide a pin P, which projects beyond the sides of said bars and into the path of said sleeve C and limits the rearward movement of the latter.

It will be particularly noted that the pressure exerted upon the front face of said jaw member D tends to raise the forward lower end of the sleeve C, thus tending to hold said projection G rigidly within the notch engaged thereby, this being also true of said sleeve J.

My said clamp is very simple and efficient and easily adjusted.

I claim as my invention—

1. A clamp comprising in combination a yielding bar slightly curved between its ends and provided in its convex face with recesses, two sleeves carrying clamping members mounted on said bar, projections carried by said sleeves adapted to enter said recesses to hold said sleeves against longitudinal movement, and means for holding said notches in said recesses, said clamping members being disposed above the concave face of said bar, substantially as and for the purpose described.

2. A clamp comprising in combination a slightly-curved yielding bar rectangular in cross-section, sleeves longitudinally movable on said bar, means for holding said sleeves against movement relatively to said bar, and clamping devices carried by said sleeve and disposed above the concave face of said bar, substantially as and for the purpose described.

3. A clamp comprising in combination a yielding bar rectangular in cross-section and slightly curved between its ends and provided in its convex long edge with recesses, sleeves loosely mounted on said bar and movable longitudinally thereon, the openings in said sleeves being larger at one end than at their other ends, projections disposed at the larger ends of said openings adapted to enter said recesses to hold said sleeves against longitudinal movement, means interposed in the larger ends of said openings and engaging said bar to hold said projections in engagement with said recesses, projections carried by said sleeve and disposed above the larger ends thereof, one of said projections forming a clamping-jaw and the other thereof being provided with a threaded opening adapted to receive a screw-shaft, a jaw rotatably mounted on said screw-shaft, and flanges on said jaw engaging said bar to hold said jaw against rotation relatively to said bar, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

HANS JORGENSEN.

Witnesses:

RUDOLPH WM. LOTZ,

E. F. WILSON.