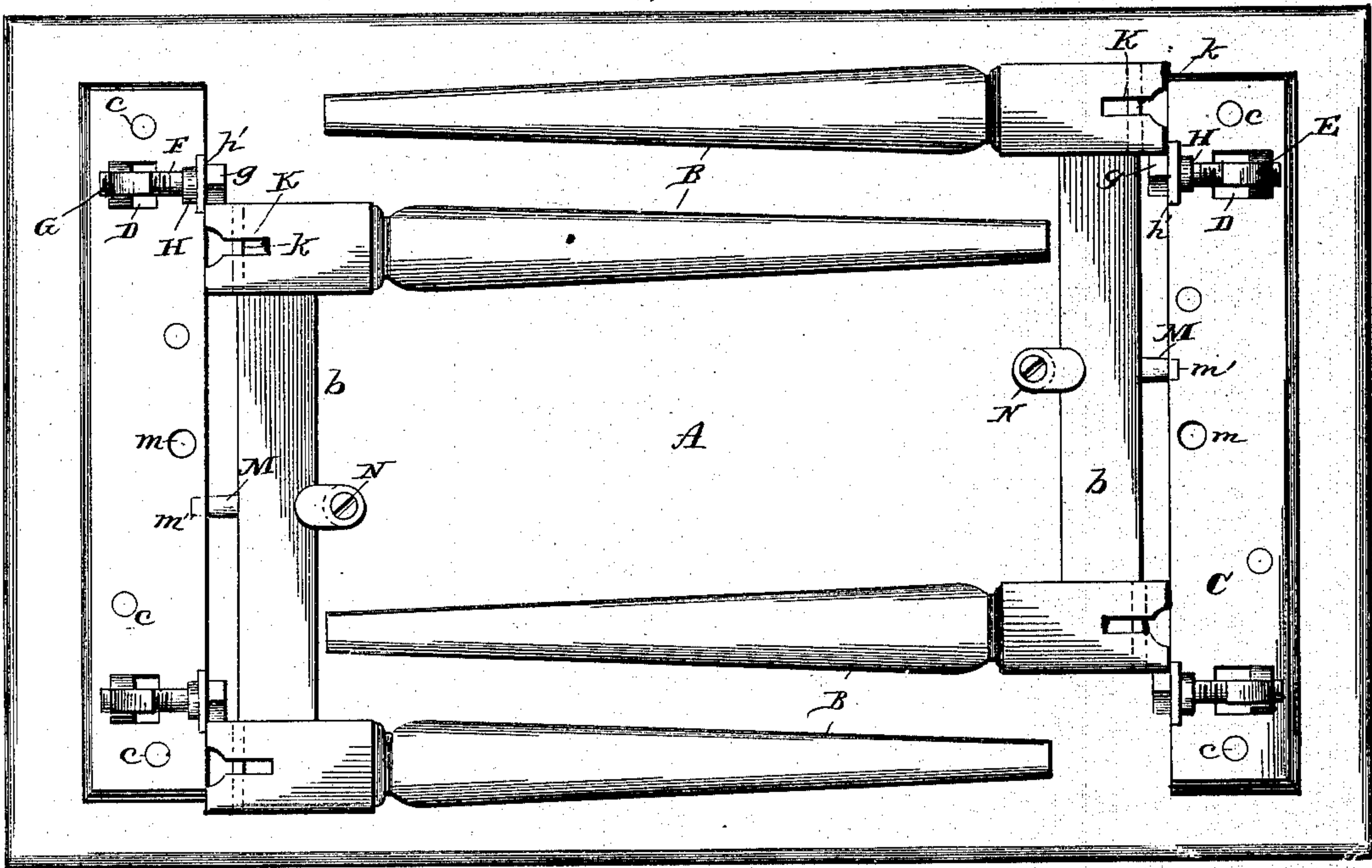
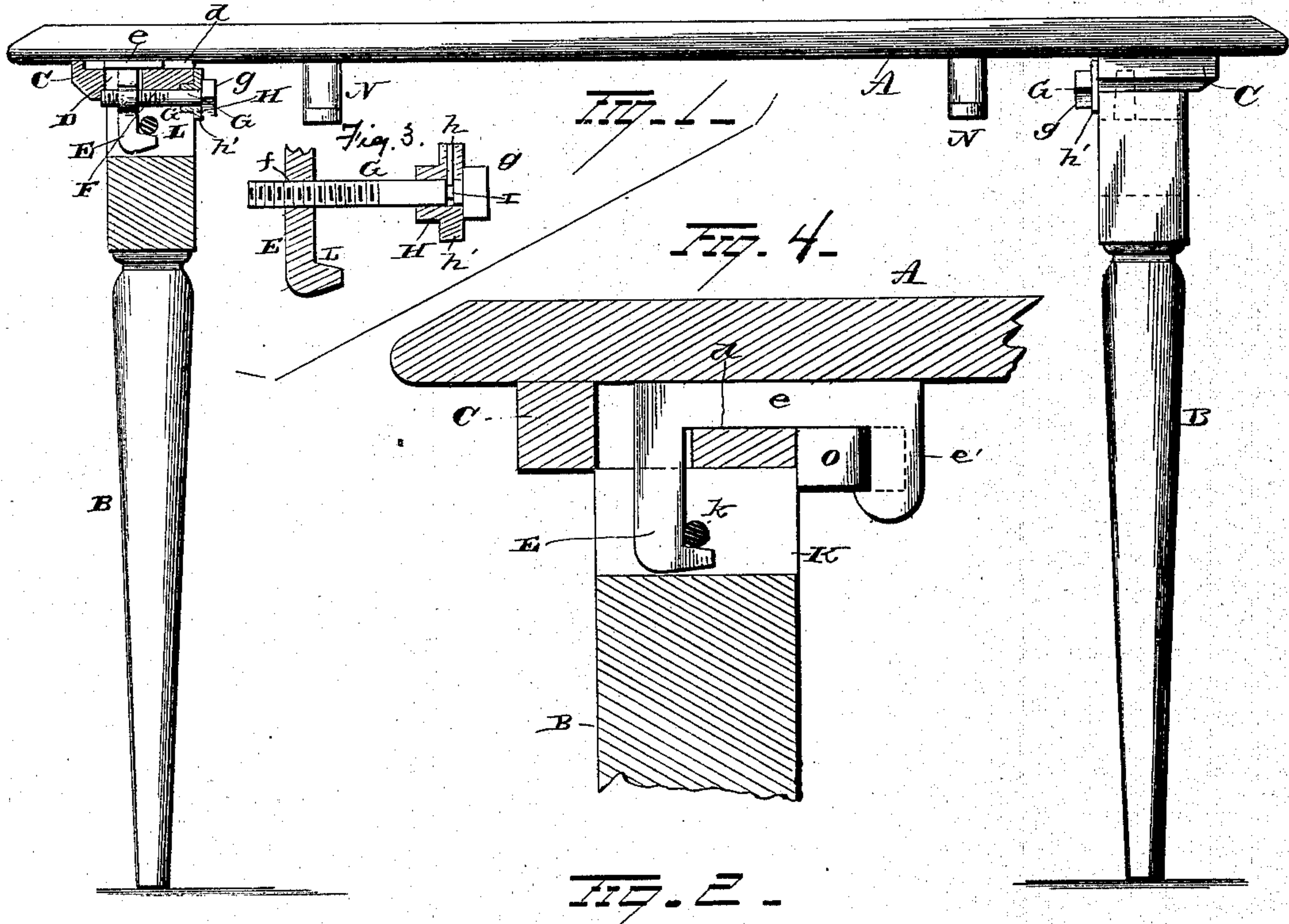


(No Model.)

H. F. GRAY.
KNOCKDOWN TABLE.

No. 326,112.

Patented Sept. 15, 1885.



WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY F. GRAY, OF COLUMBUS, OHIO.

KNOCKDOWN TABLE.

SPECIFICATION forming part of Letters Patent No. 326,112, dated September 15, 1885.

Application filed June 8, 1885. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. GRAY, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Folding Tables; 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 an improvement in knockdown tables.

The object is to provide improved means for attaching the legs to the top, whereby they may be held firmly in position for use, and easily detached and packed beneath the top in a compact manner for shipping, storage, &c.

A further object is to provide a knockdown table which shall have a neat, trim appearance, and be adapted to use for a variety of purposes.

With these ends in view my invention consists in certain features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of the table adjusted for use. Fig. 2 is a bottom view of the same folded for storage or shipping, and Fig. 3 is a vertical section through one of the leg-fastenings. Fig. 4 is a modification.

A represents a table-top, and B its legs. The legs are preferably connected in pairs, as shown, by a strong girder, *b*, located at or near their heads.

On the under side, and at the desired distance from the ends of the top A, two cleats, C, are secured by means of screws *c* or other suitable means. The cleats C are provided near their ends with transverse closed slots D, communicating with transverse recesses *d* on the upper sides of the cleats.

A depending hook, E, extends through and projects below the cleat C, and is firmly secured to or formed integral with a plate or bar, *e*, adapted to fit and slide within the recess *d*. The lower side of the cleat C is also provided with a transverse recess or groove, F, running parallel, or nearly so, with the recess *d*, and communicating with the lower end of the slot D. The portion of the hook-shank which occupies the lower end of the slot D is

enlarged, if necessary, to admit of a threaded perforation, *f*, being formed therein transversely to the cleat C.

A threaded bolt, G, provided with an angular head, *g*, or a head of other form adapted to receive a wrench or other style of operating-lever, is located in the recess F, with its threaded portion in engagement with the threaded perforation *f*, and locked against longitudinal motion in the groove F by a pin or lug, *h*, which projects from the bearing H into an annular groove, I, formed on the bolt near its head. The bearing H is provided with flanges *h'*, by means of which it is firmly secured to the inner edge of the cleat C. The bolt has a free rotary motion in its bearing, and the slot D is sufficiently elongated to allow the shank of the hook E more or less play transversely to the cleat, as may be found necessary.

The head of the leg B is provided with an open slot, K, sufficiently wide to freely admit the hook E. A stout pin, *k*, is secured across the slot K at a sufficient distance from the end to engage the hook E near its point.

The biting face of the hook E is inclined, as shown at L, so that when forced horizontally into engagement with the pin *k* it will tend to draw the end of the leg into snug contact with the lower face of the cleat, and thereby lock it firmly thereto.

The open end of the slot K is somewhat enlarged, if found necessary, to fit the enlarged portion of the hook-shank and the bolt-bearing, whereby additional firmness is obtained and all liability to end displacement avoided. The side of the leg toward the bolt-head bears against the inside face of the flange *h'*, which extends laterally beyond the bearing H, and is thereby prevented from creeping away from the pressure of the hook when drawn into contact with the pin *k*.

To adjust the leg it is placed in position with its head resting in contact with the cleat and the hook E in close proximity to the pin *k*. The bolt G is then turned, drawing the hook forwardly into contact with the pin *k*, and thereby pressing the leg snugly into contact with the cleat and locking it in its position. A pair of legs are placed in position on the same cleat when bound together by a girder, as shown in the preferred construction, and secured as above explained.

To further strengthen the legs in position I find it desirable to set a pin, M, in the upper edge of the cross-girder *b*, and provide the lower face of the cleat C with a socket, *m*, adapted to receive the end of the pin M when the legs are adjusted on the cleat. The said pins M also engage sockets *m'*, formed in the inner edges of the cleats when the legs are in a folded position beneath the top.

To make a most compact and convenient package, the distance between the cleats C is about equal to the length of one of the legs plus the depth of one of the girders, and when placed in the position shown in Fig. 2 are secured by buttons N.

The modification represented in Fig. 4 consists in extending the sliding plate or bar *e* inwardly beyond the edge of the cleat and providing it with a depending hooked arm, *e'*.

When the legs are adjusted on the cleats, the hooks E are forced forwardly into contact with the pins *k* by means of wedge-shaped keys O, secured in sliding adjustment to the inner edges of the cleats and adapted to engage the hooked arms *e'*. The adjustment, however, in this last instance, while sufficiently snug for light tables, is not in all respects so satisfactory as in the preferred construction.

It is evident that the bolt-heads might be located at the outer edges of the cleats instead of the inner, that other means of operating and locking the hooks might be employed, and that many slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the construction herein set forth; but,

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

1. In a knockdown table, the combination, with the top and the legs having slots in their upper ends and pins extending across the slots, of sliding hooks secured to the top and adapted to engage the pins and lock the legs securely to the top, substantially as set forth.

2. In a knockdown table, the combination, with the top and legs, of cleats secured to the top and adapted to form seats for the ends of the legs, and sliding hooks secured in the cleats for locking the legs to the top, substantially as set forth.

3. In a knockdown table, the combination, with the top cleats secured thereto, and legs provided with slots in their ends and pins extending across the slots, of inclined-faced hooks secured in sliding adjustment in the cleats, and means for forcing the hooks into engagement with the pin, substantially as set forth.

4. In a knockdown table, the combination, with a leg provided with a slot and pin extending transversely across the slot, of a sliding screw-operated hook adapted to engage the pin and draw the leg snugly into contact with the top, substantially as set forth.

5. The combination, with the top and the cleats provided with transverse slots, of sliding inclined-faced hooks secured in the slots, and adapted to engage pins secured in the legs, substantially as set forth.

6. The combination, with the cleats provided with the transverse slots, and hooks located in the slots and provided with threaded perforations, of screw-bolts secured in bearings attached to the edge of the cleat and adapted to engage the threaded perforation in the hooks, for the purpose substantially as set forth.

7. The combination, with the cleats provided with the slots, and locking-hooks secured in the slots and having threaded perforations formed in their shanks, of the bolts and the bolt-bearings secured to the edges of the cleats and adapted to hold the bolts against longitudinal displacement, substantially as set forth.

8. A folding table consisting, essentially, of the top provided with the slotted cleats, locking-hooks located within the slots, and legs having slotted ends with transverse pins, the legs being connected in pairs, and adapted to be secured in a folded position beneath the top and between the cleats, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HENRY F. GRAY.

Witnesses:

GEO. MCKINNIE,
A. E. CREIGHTON.