





# UNITED STATES PATENT OFFICE.

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## EXTENSION-TABLE.

SPECIFICATION forming part of Letters Patent No. 759,997, dated May 17, 1904.

Application filed April 28, 1902. Serial No. 104,984. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY JOHNSON, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Extension-Tables, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to extension-tables of the type in which the leaves when not in use are stored within the body of the table.

The invention has particular reference to the means employed for supporting the leaves when the table is extended and, further, in the means for locking the leaves to each other while in this position.

The invention consists in the construction as hereinafter described and claimed.

In the drawings, Figure 1 is a longitudinal section through the table in its extended position, illustrating the manner of raising and lowering the leaves. Fig. 2 is a cross-section thereof. Fig. 3 is a section similar to a portion of Fig. 1, showing the locking device for the leaves and the manner of engaging and disengaging the same.

A is a stationary section of the table, which, as shown, comprises a top *a*, depending side rails *b*, and cross-bars *c*. To the latter are connected the slides B, which are arranged sufficiently below the top *a* to form therebetween a storage-receptacle for said leaves.

*c* is an end rail connecting the outer ends of the extension-slides B and corresponding to the depending side rails *b*.

D represents the leaves. These are adapted to be stored in the space between the slides and the table-top, being of substantially the same width as said top, so as to form a continuation thereof when arranged in the same plane. In order to give a more finished appearance to the table when extended, each leaf is preferably provided with depending side rails *d*, which are out of alinement with the side rails *b* of the stationary section, so as to be capable of being stored beneath the stationary top. The depending rails *d* are also of lesser depth than the rails *b*, so that when the

leaf is lowered in its position for storing said rail *d* will clear the cross-bars *c*.

For supporting the leaves upon the slides, so as to be in the plane of the table-top, I have devised the following construction: E represents thin flanges, preferably formed of sheet metal and secured to the leaves, so as to depend therefrom in a vertical longitudinal plane. These flanges are provided with slots *e*, preferably in the form shown, which is that of a segment of a circle. Engaged with these slots are pins F, which are secured to the extension-slides, the arrangement being such that by moving the leaf longitudinally of the table the pins F will travel from one end to the other of the slots *e*, which will cause the raising or lowering of the leaf. In the lowered position of the leaf the pin F is at the upper end of the slot *e*. This slot being of segmental form and having its center in a position to form a quadrant thereof it is evident that in raising the leaf its first direction of movement will be substantially vertical. As it continues its upward movement the curvature of the slot will change the direction of movement until at the finish its movement will be in a substantially horizontal plane. The effect of this movement is that the leaf when raised will at the end of its movement travel laterally, so as to abut its edge against the end rail of the corresponding section or against the previously-raised leaf.

To lock the leaves in raised position, each is provided with one or more locking-hooks F', which project laterally from the outer edge of the leaf and have the hooked shoulder *i* thereof projecting downwardly.

G represents keepers secured to the end rail C and to the opposite edge of each leaf from that to which the hooks F are secured. The keepers G are preferably in the form of a metallic plate set into a recess in the edge of the leaf and having an aperture *f* of sufficient size to admit the head *g* of the hook F'. In rear of this plate the leaf is cut away to form a recess *h* for receiving the head *g* of the hook and permitting the latter to drop, so as to engage the locking-shoulder *i* of said



hook with the lower edge of the aperture in the plate G. Thus if the hooks F on one leaf are engaged with the keepers G of another leaf or to the end rail C the shoulders *i* of the hook will then hold the leaves from accidental disengagement, it being necessary to lift the leaf before the hooks may be released.

To facilitate the automatic locking of the leaves during the operation of raising the same, the slots *e* are of a shape to raise the leaves slightly above the level of the table-top. At the end of the slot a recess *j* is formed which will permit the leaf to drop after the hook is engaged with the keeper. As it is desirable to have the width of the leaves as near as possible to that of the stationary table-top, it is essential that said leaves in their lower position will be held in exact alinement with the storage-receptacle, thereby dispensing with the necessity of more than a slight clearance. To secure this result, the depending flanges E preferably engage with slots formed in the slides B, which hold said leaves in fixed relation to said slides and properly centered.

As shown, *k* represents slots, preferably formed by a saw-kerf and in a vertical plane centrally of the slides B. The width of the kerf is just sufficient to receive the flanges E, and the pin F is held in position by engaging with an aperture in the slide bored through one side thereof and passing through the slot *k*.

The flanges E may be secured in any suitable manner to depend from the leaves; but, as shown, each is provided with an angle-bend, so as to form a securing-flange *l*, which is screwed to the under side of the leaf. I preferably arrange a pair of flanges E, secured to the same leaf for engaging with each slide; but this is not essential, as a single flange for each slide would support the leaf, or, if desired, two separate cam-slots might be formed in a single flange secured to the leaf. The construction shown I believe, however, to be preferable, as it supports each leaf at four points, and inasmuch as separate flanges E are used for the opposite edges of the leaf the amount of metal in the flanges is economized.

What I claim as my invention is—

1. In an extension-table, a stationary top, an extension-section provided with a stationary portion, a leaf carried thereby, adapted when in lowered position to rest below the level of the stationary top, and to move with the extension-section beneath the same, means for raising said leaf by the longitudinal movement thereof relative to said extension-section, said means comprising means whereby said leaf is first raised above the level of the stationary portion of the extension-section and then lowered to said level and cooperating fastening members secured to the abutting edges of the leaf on the extension-section and the stationary portion on the extension-section, and means whereby said fastening members will

be automatically engaged during the lowering movement of the leaf.

2. In an extension-table, a stationary top having a leaf-storage receptacle therebeneath, an extension-slide below said receptacle provided with a stationary portion, a leaf carried by said slide into and out from said receptacle, a flange depending from said leaf, said flange having a downwardly-extending cam-shaped slot and an upwardly-extending slot communicating with the lowermost end of the cam-shaped slot, a pin secured to the slide and passing through the slot in the flange, a cooperating latch and keeper secured, one to the stationary portion on the extension-section and the other to the leaf on the extension-section, and means whereby when the leaf is moved in a longitudinal direction toward the stationary portion the leaf will be raised above the plane of said stationary portion and the latch will enter the keeper while the pin travels in the cam-shaped groove in the flange, and the leaf will drop to the level of the stationary portion and the latch and keeper will be locked together when the pin enters the upwardly-extending slot at the end of the cam-shaped slot.

3. In an extension-table, a stationary top, an extension-section provided with a stationary portion, a leaf carried thereby, means for raising said leaf relative to said extension-section, a downwardly-turned hook projecting from one edge of said leaf, a keeper for engaging with said hook secured to the edge of the stationary portion on the extension-section against which the edge of the leaf abuts when in the raised position, and means for raising said leaf above its normal raised position to cause the hook to enter the keeper and lowering the same to cause the engagement of said hook with the keeper.

4. In an extension-table, a stationary top, an extension-section provided with a stationary portion, a leaf carried thereby, adapted when in lowered position to rest below the level of the stationary top, and to move with the extension-section beneath the same, means for raising said leaf by the longitudinal movement thereof relative to said extension-section, said means comprising means whereby said leaf is raised above the level of said stationary portion on the extension-section and then lowered to said level, and means for automatically locking the leaf to the stationary portion during the lowering movement of said leaf.

5. In an extension-table, a stationary top, an extension-section provided with a stationary portion, a leaf carried thereby, adapted when in lowered position to rest below the level of the stationary top, and to move with the extension-section beneath the same, means for raising said leaf first above the level of the stationary portion on the extension-section and then lowering it to the level of the stationary portion, and means for automatically locking



said leaf to said stationary portion during the lowering movement of the leaf.

6. In an extension-table, a stationary top,  
an extension-section provided with a station-  
5 ary portion, a leaf carried thereby, adapted  
when in lowered position to rest below the  
level of the stationary top, and to move with  
the extension-section beneath the same, means  
for raising said leaf first above the level of the  
10 stationary portion on the extension-section and  
then lowering it to the level of the stationary

portion, and a detent carried by the stationary  
member and arranged to engage with the leaf  
during its lowering movement and lock the  
same to the stationary section.

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

HENRY JOHNSON.

Witnesses:

M. B. O'DOHERTY,  
H. C. SMITH.

15