# A. W. FAY.

## Folding-Extension Table.

No. 161,497. Patented March 30, 1875.

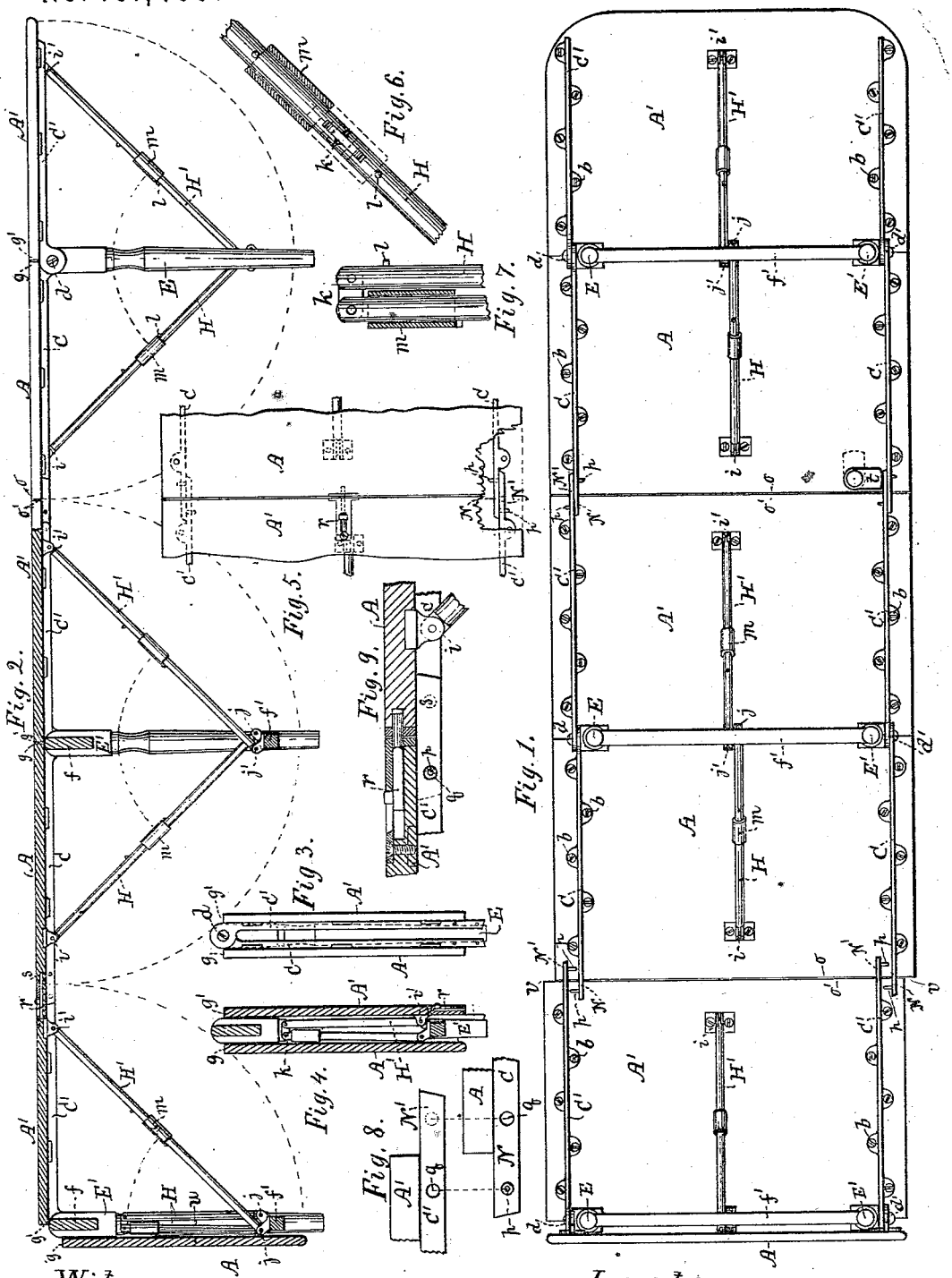

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Witnesses:
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN FOLDING EXTENSION-TABLES.

Specification forming part of Letters Patent No. **161,497**, dated March 30, 1875; application filed March 15, 1875.

*To all whom it may concern:*

Be it known that I, ARTEMAS W. FAY, of the city of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Folding Extension-Tables, of which the following is a specification, reference being had to the accompanying drawing.

The general object of this invention is to produce a very light, strong, cheap, and durable table, which can be quickly separated into two or more parts, each having two leaves and a pair of legs, which can be folded together so as to occupy but little space when not in use, and be then easily carried about, and conveniently unfolded and set up ready for use.

One part of this invention consists of pairs of table-leaves secured upon cleats or brackets which extend across the leaves and are pivoted to the upper part of the outer ends of pairs of united legs, in combination with jointed braces that are hinged or pivoted at one end to the united legs, and at the other end to the leaves, substantially as hereinafter set forth.

Another part of this invention consists in the combination, with the pairs of table-leaves upon the cleats or brackets that are pivoted to the pairs of legs, of supports which are extensions of the said cleats or brackets and project beyond the edges of the leaves, and have lateral pins and corresponding sockets that engage together, whereby the adjacent folding leaves of two pairs are mutually supported and connected together, and yet readily separable, substantially as hereinafter described.

In the aforesaid drawing, Figure 1 is a plan of the under side of one of my improved tables, showing two pairs of legs, and leaves unfolded and secured together, and another pair of legs and leaves, of which one leaf is folded against its legs and the other extended toward and against, and in a position to be engaged by a lateral movement with the adjacent leaf of the contiguous pair. Fig. 2 is an elevation, partly in central section, of the same three pairs of legs and leaves, all secured together. Fig. 3 is an end elevation of an inner pair of leaves and legs folded together. Fig. 4 is a section of an end pair of legs and leaves folded together. Fig. 5 is a top view of the contiguous parts of the adjacent leaves of two pairs secured together, some parts being broken away to show the fastening devices. Fig. 6 is a partly sectional view, on a larger scale, of the middle part of one of the jointed braces extended; and Fig. 7 is a view of the same when folded; Fig. 8 is a side view, on an enlarged scale, of the end portions of the inner leaves of two detachable pairs; and Fig. 9 is a central section, on a like scale, of the same parts secured together.

Like parts are marked by like letters in the different figures.

A A′ are the two table-leaves of each pair, which are fastened firmly by screws *b* to cleats or brackets C C C′ C′, which extend across the under side of the leaves, and are pivoted together at *d d′* to the upper part of the outer ends of a pair of legs, E E′, that are firmly united together by bars *f f′*. The two leaves A A′ of each pair are so arranged on the cleats or brackets C C C′ C′, and the pivot-points *d d′* of the latter are so located that, when the leaves are turned up into the same plane, their edges *g g′* meet, as shown in Fig. 2, and that the leaves can be folded down against the legs, as represented in Figs. 3 and 4. H H′ are two braces, hinged or pivoted at one end, *i i′*, to the under side of the leaves of each pair, and at the other end, *j j′*, to the bar *f′*, between the legs of the same. Each brace H or H′ has a joint, *k*, so that it can be folded, as shown in Figs. 4 and 7, and has a sleeve, *m*, which can be slid over the joint to a stop, *l*, when the brace is straightened, and will then prevent the brace from folding. The jointed braces H H′ are so constructed and hinged or pivoted to the leaves A A′ and cross-bar *f′* of the legs that when the braces are secured in their extended position they hold and keep the leaves extended, as represented in Fig. 2, and that when the leaves are turned down against the legs, as in Fig. 3, the jointed braces then fold into the space between the legs and leaves, as shown in Fig. 4, and at *u* in Fig. 2, without requiring any openings through the leaves.

The joints in the braces H H′ may be either double, as shown in Fig. 7, or single, as in ordinary hinges or folding rules, and may be prevented from folding, when expanded, by means of any suitable stop, catch, bolt, or equivalent, for the sleeve *m*.

N N N′ N′ are supports, which are fast on the under sides, and project beyond the contiguous edges *o o′* of the adjacent leaves of the detachable pairs, and alongside of each other, and are extensions of the pivoted cleats or brackets C C C′ C′, and have lateral pins *p*, and corresponding holes or sockets *q*, which engage together, as indicated in Figs. 1 and 5, and thereby mutually support and fasten each other together.

A sliding bolt, *r*, at the edge of one of the leaves, extends into a corresponding socket, *s*, in the edge of the adjacent leaf, as shown in Fig. 9, and thereby prevents the lateral movement of the leaves, which would disengage the pins *p* from the sockets *q* in the supports N N N′ N′, or such lateral movement of the leaves may be prevented by means of a turn-stop, *t*, Fig. 1, or other suitable device or equivalent for the bolt *r* and socket *s*.

The two outer end leaves of the table may be without the projecting parts N N N′ N′, as shown in Figs. 1 and 2; but all the other leaves must have them.

With the above-described construction, either two, three, four, or any desired greater number of the separate pairs of folding leaves and legs can be readily secured together, one after the other, so as to form a table of greater or less extent, as occasion shall require.

In detaching from the table and folding together a pair of the leaves and legs, the outer brace and leaf are first folded down, as shown at *u* in Fig. 2, and the bolt *r* is next slid out of its socket *s*, and the pair of legs and leaves are then moved to one side, so as to separate the supports N N′ N N′ from each other, as indicated at *v* in Fig. 1, and then the other jointed brace and leaf are folded down, so that the detached pair of legs and leaves appears as represented in Figs. 3 and 4. The reverse of this process is practiced in extending the table, by the addition thereto of a folded pair of the legs and leaves.

By having the pairs of folding leaves A A′ fastened upon the cleats or brackets C C C′ C′, which extend across the under sides of the leaves and are pivoted to and upon the outer ends of the pairs of united legs, as above described, the said cleats or brackets not only serve as hinges to joint or pivot the leaves to the legs, but will fold down out of the way outside of the ends of the pairs of legs, and greatly stiffen and strengthen the leaves, so that the latter can be very much thinner, and the whole table materially lighter and more convenient to fold and unfold and carry about, than if the pairs of leaves were jointed to the pairs of legs by common hinges.

By having the detachable pairs of leaves secured together by means of the projecting extensions N N′ N N′ of the cleats or brackets C C′ C C′, that carry the leaves, and are pivoted to the legs, as above described, the pairs of leaves are not only readily detachable, but are held together without strain upon the leaves, while the latter are nicely supported by the said connected extensions of the pivoted cleats or brackets.

What I claim as my invention is—

1. The pairs of leaves A A′, fast on the cleats or brackets C C C′ C′, that extend across the leaves and are pivoted to and upon the outer ends of the pairs of united legs E E′, in combination with the jointed braces H H′, all constructed and arranged to operate substantially as described.

2. In combination with the detachable pairs of leaves upon the cleats or brackets pivoted to the legs, the projecting extensions N N N′ N′ of the said cleats or brackets, having the lateral pins *p*, and sockets *q*, that engage together, and thereby connect the detachable pairs of folding leaves and legs, substantially as specified and shown.

In testimony whereof I hereunto subscribe my name in the presence of two witnesses, this 11th day of February, 1875.

ARTEMAS W. FAY.

Witnesses:
AUSTIN F. PARK,
J. T. GOODFELLOW.