

G. STEINGRUBER.
EXTENSION TABLE.
APPLICATION FILED MAY 16, 1908.

915,241.

Patented Mar. 16, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

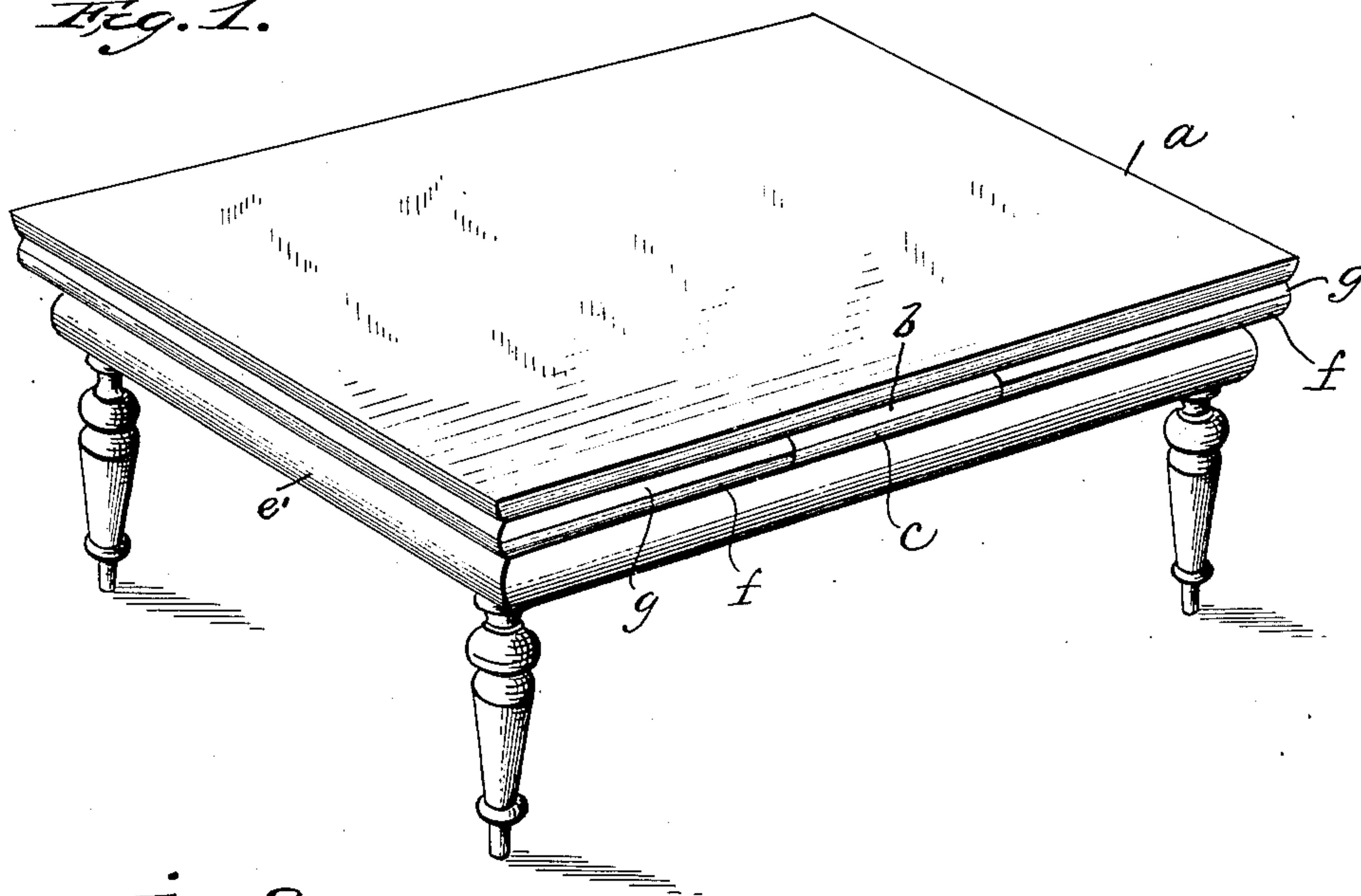
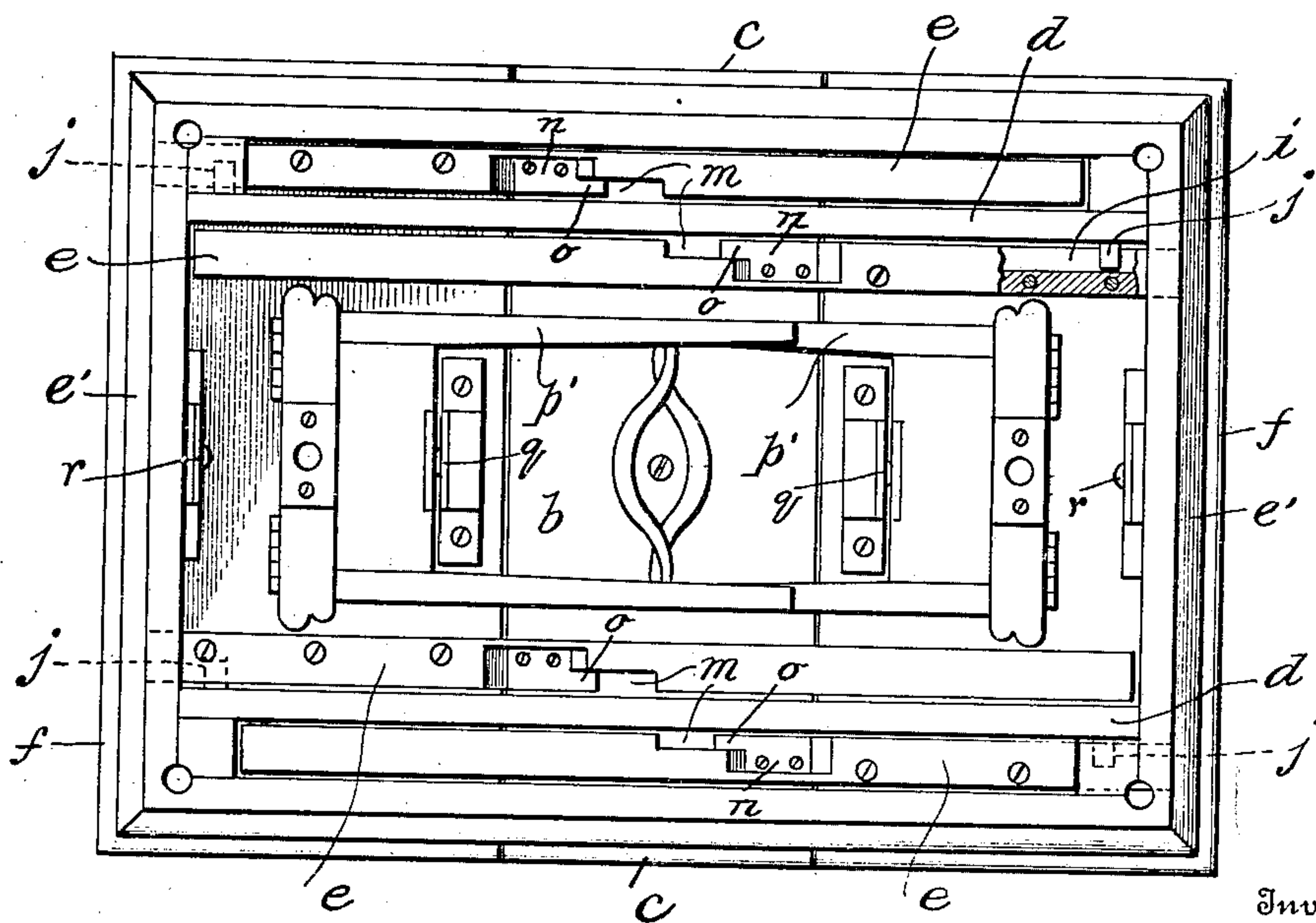


Fig. 2.



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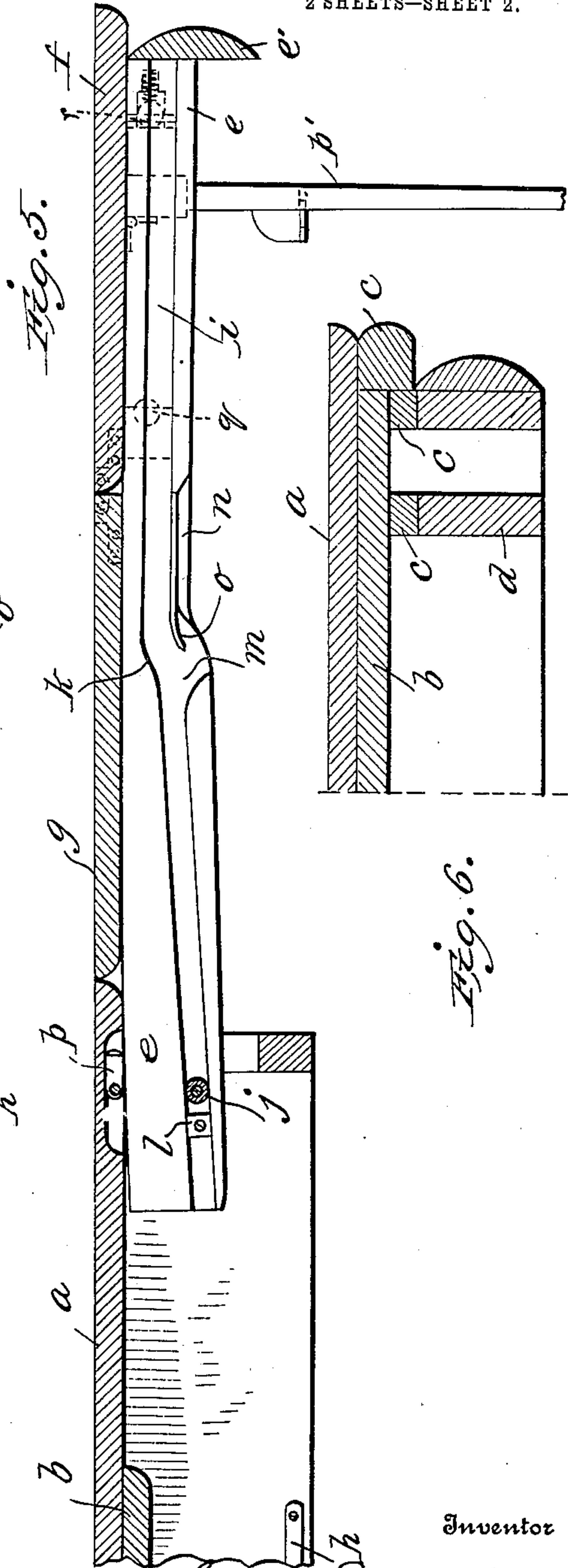
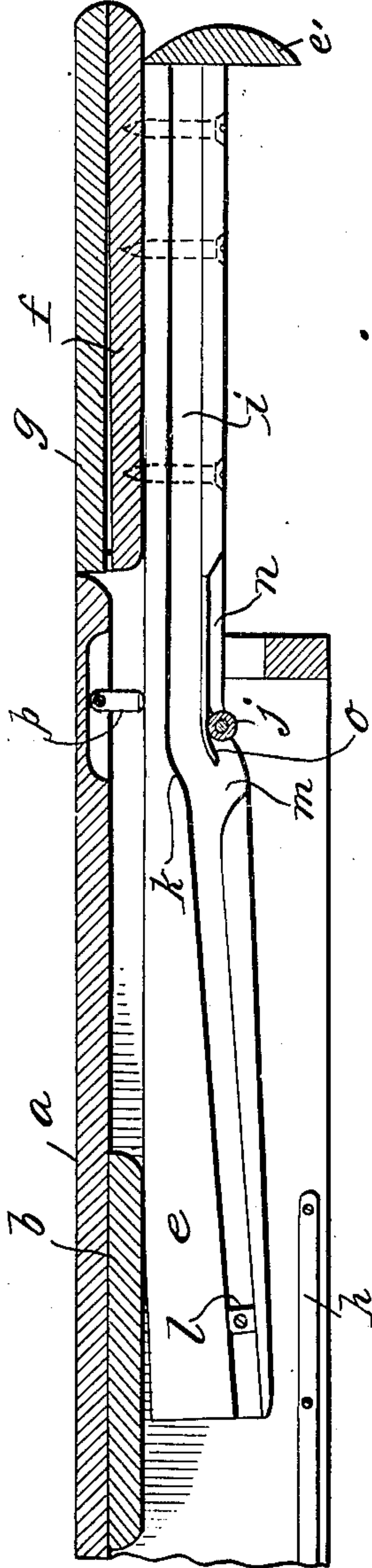
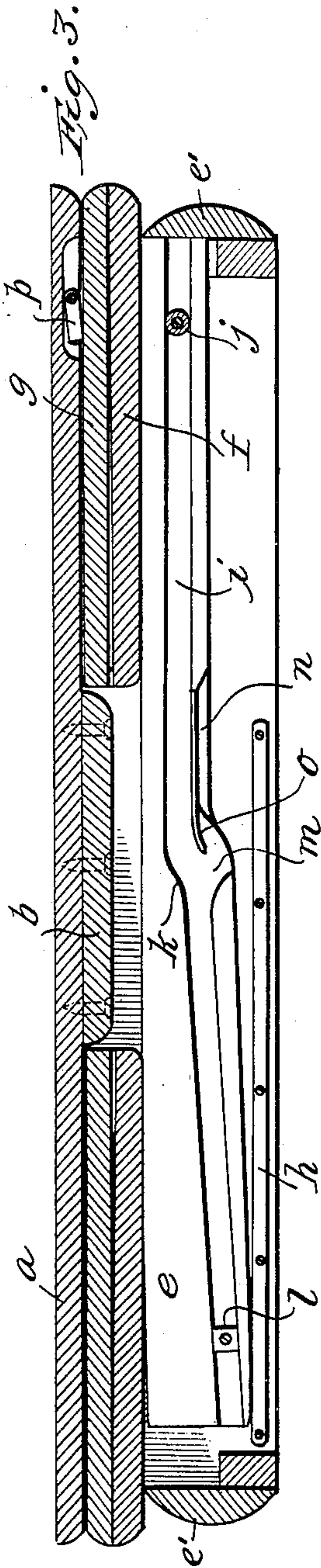
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

GEORGE STEINGRUBER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO FRITZ HERZOG, OF WASHINGTON, DISTRICT OF COLUMBIA.

EXTENSION-TABLE.

No. 915,241.

Specification of Letters Patent.

Patented March 16, 1909.

Application filed May 16, 1908. Serial No. 433,236.

To all whom it may concern:

Be it known that I, GEORGE STEINGRUBER, a citizen of the United States of America, and a resident of the city of Washington, District of Columbia, have invented certain new and useful Improvements in Extension-Tables, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

10 Figure 1 is a perspective view of the table with the extensions closed up; Fig. 2 is a bottom view of the same with the table legs removed and a portion of one of the runners broken away; Fig. 3 is a longitudinal sectional view through the table with the parts in the position shown in Fig. 1; Fig. 4 is a vertical section through one end of the table showing one of the adjustments of the extension-leaf structure; Fig. 5 is a similar view showing another adjustment of the extension-leaf structure; Fig. 6 is a detail cross sectional view through the central portion of the table structure with the extension-runners removed.

25 The object of this invention is to provide simple means whereby each end of the table shall be capable of being extended to two adjustments and thus practically double or triple the area of the table top, means being provided for rigidly supporting and steadying the extensions in either of their adjustments, and means being also provided for rendering the movements of the extensions easy and accurate, as more fully hereinafter set forth.

Referring to the drawings by reference characters, the main table top *a* is supported on and attached to the table structure by a transverse central board *b* and filling pieces *c*, the central board and filling pieces serving to support the opposite ends of the table top a suitable distance above the table frame. The table frame consists of the usual legs and side and end bars together with a pair of supplemental side bars *d* fastened to the table frame and lying parallel with the outside side bars.

Each of the extensions consists of a pair of parallel extension bars or runners *e* secured at their outer ends to a cross-bar *e'* and also

to the under side of the lower one of a pair of extension leaves *f* and *g*, the upper one *g* of these leaves being hinged at its inner edge to the inner edge of the lower leaf. These extension bars work through openings in the end bars of the main table frame and are guided in their back and forth movements by the longitudinal frame bars of the table, the inner ends of the extension bars, when they are shoved in under the table top, being supported by way strips *h* attached to the longitudinal frame bars of the table.

The two extension leaves are folded one upon the other and are freely slidable into and out of the space between the end portion of the table top and the table frame, as shown, and to guide as well as support the extension bars or runners, I form in the side of each runner a groove *i*, extending practically its full length, and fastened to the table structure (one at each corner of the table) is a horizontal roller-pin *j* which enters said groove and on which the upper wall of said groove rests. The forward portion of said groove, that is, the part extending from the outer end of the runner to a point inside of the inner edges of the extension leaves, is parallel with the faces of said leaves, thence the groove takes a comparatively abrupt turn downwardly, at *k*, and from this abrupt turn the groove inclines downwardly to stop *l* which is its inner terminus. Coincident with the abrupt turn at *k* the bottom wall of the groove is cut away to form a throat-like opening *m*, and immediately in front of this opening the face of the runner is cut away at *n* to form a tongue-like projection *o* whose forward end turns slightly downwardly and forms one of the walls of said throat or passage *m*. It is obvious that if desired the tongue *o* and adjacent parts may be constructed of metal to give sufficient strength and reduce the wear at this point. To obtain the first adjustment, namely that shown in Fig. 4, the extension is drawn outwardly until the cam portions *k* of the way or guide have ridden up on the pins and the pins are then opposite or slightly in the rear of the passages *m*. In coming to this position the extension leaves are automatically raised until the upper sur-

face of the upper one is approximately in the same plane as the upper surface of the main table top and the inner edges of the leaves are a short distance away from the adjacent end-edge of the main top. Then the operator takes hold of the extension and slightly lifts the inner portions of the runners and slides them inwardly thus causing the pins *j* to pass out through the throats *m* and to engage the under sides of the tongues *o* which tongues are so located and proportioned that the inner edge of the top extension leaf will come flush with the adjacent edge of the main top of the table. When the extension is thus adjusted the adjacent end portion of the main table top is supported by a pair of short legs or supports *p* hinged to the under side of the main table top and adapted to automatically swing down, when the extension leaves are withdrawn, and rest upon the upper edges of the runners. These legs *p* are adapted to swing toward and from the adjacent end of the table so that they will swing freely out of the way when the runners are drawn outwardly or pushed inwardly, and the under side of the table top is recessed for the reception of these supports when the extension leaves are shoved under the table.

It will be observed that when the parts are adjusted to the position shown in Fig. 4 the downwardly turned end of tongue *o* prevents accidental dislodgment of the extension devices from that position since this downwardly turned end portion requires that a little effort be exerted by a direct outward pull to cause the tongues to pass off the rollers and allow the rollers to pass back into the main grooves.

When it is desired to adjust the extension to its third or outermost position it is simply necessary to draw out the extension runners until the stops *l* strike the rollers *j*. The act of drawing out the extension arms automatically raises the extension frame until the upper surface of the lower extension leaf *f* is brought to a level with the upper surface of the main table top, whereupon the upper leaf *g* may be swung over inwardly and allowed to rest upon the upper edges of the runners, as shown in Fig. 5. To support the extension in this position I employ a leg structure *p'* hinged to the under side of the extension leaf *f* and adapted to be locked in its folded position by a suitable spring ball catch *q* of the usual construction and in its unfolded or operative position by a similar catch *r*.

It will be observed that the throat *m* opens clear to the lower edge of the runner. The advantage of this is that the runners may be readily detached from the supporting pins *j* so that the extension structure may be entirely withdrawn from the table for the purposes of repair or adjustment without dis-

mantling the table. To withdraw the extension structure it is necessary simply to adjust the structure so that the pins lie in the throats adjacent to the ends of the hooks *o* and then slightly lift and pull out the structure, whereupon the bottoms of the runners will pass over the tops of the pins *j* and work freely thereon. In this manner the extension structure may be removed entirely without dismantling the table in any way so that the table may be kept in use while the extension structure is being repaired.

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

1. In a table having a space between its top and the supporting frame, an extension leaf structure adapted to slide back under the table top and embodying a pair of runners, and supports depending from the under side of the table top and adapted to swing freely inwardly or outwardly and to rest upon said runners when the extension structure is drawn out, the table top being recessed in its under side both in front of and behind said supports.

2. In combination, a main table structure, an extension structure comprising a pair of runners and an extension leaf, the runners working back and forth in said table structure and being provided each with a longitudinal way whose inner end is abruptly turned downward, a pair of supporting pins on the table structure engaging said ways, and a pair of tongues on said runners adapted to engage over said pins, said tongues extending inwardly and downwardly for the purpose set forth.

3. In combination, a main table structure provided with a pair of horizontal stationary guide-pins, an extension structure comprising a pair of runners and a pair of superposed leaves fastened to the top thereof and a folding leg structure, said runners each being provided with a longitudinal groove in one of its side faces, said groove having an abrupt turn about midway its length and a downward inclination from that point toward its rear end, the lower wall of the groove adjacent said abrupt turned part being open and provided with a rearwardly extending downwardly turned tongue or flange, all for the purpose set forth.

4. In combination, a main table structure, an extension structure comprising a pair of runners and an extension leaf, the runners being adapted to pass into and out of openings in the respective end rails of the table structure and each being provided with a longitudinal groove in one side face whose inner end turns downwardly, each groove having a throat-like passage near each downwardly turned portion, said passage opening

entirely to the lower edge of the runner, and
a pair of tongues just forward of said pas-
sages, and pins on the table structure adapt-
ed to engage in said grooves and under said
5 tongues and to pass out through said throat-
like passages, for the purposes set forth.

In testimony whereof I hereunto affix my

signature in the presence of two witnesses
this 8th day of May, 1908.

GEORGE STEINGRUBER.

Witnesses:

CHARLES D. DAVIS,

CHARLES LOWELL HOWARD.