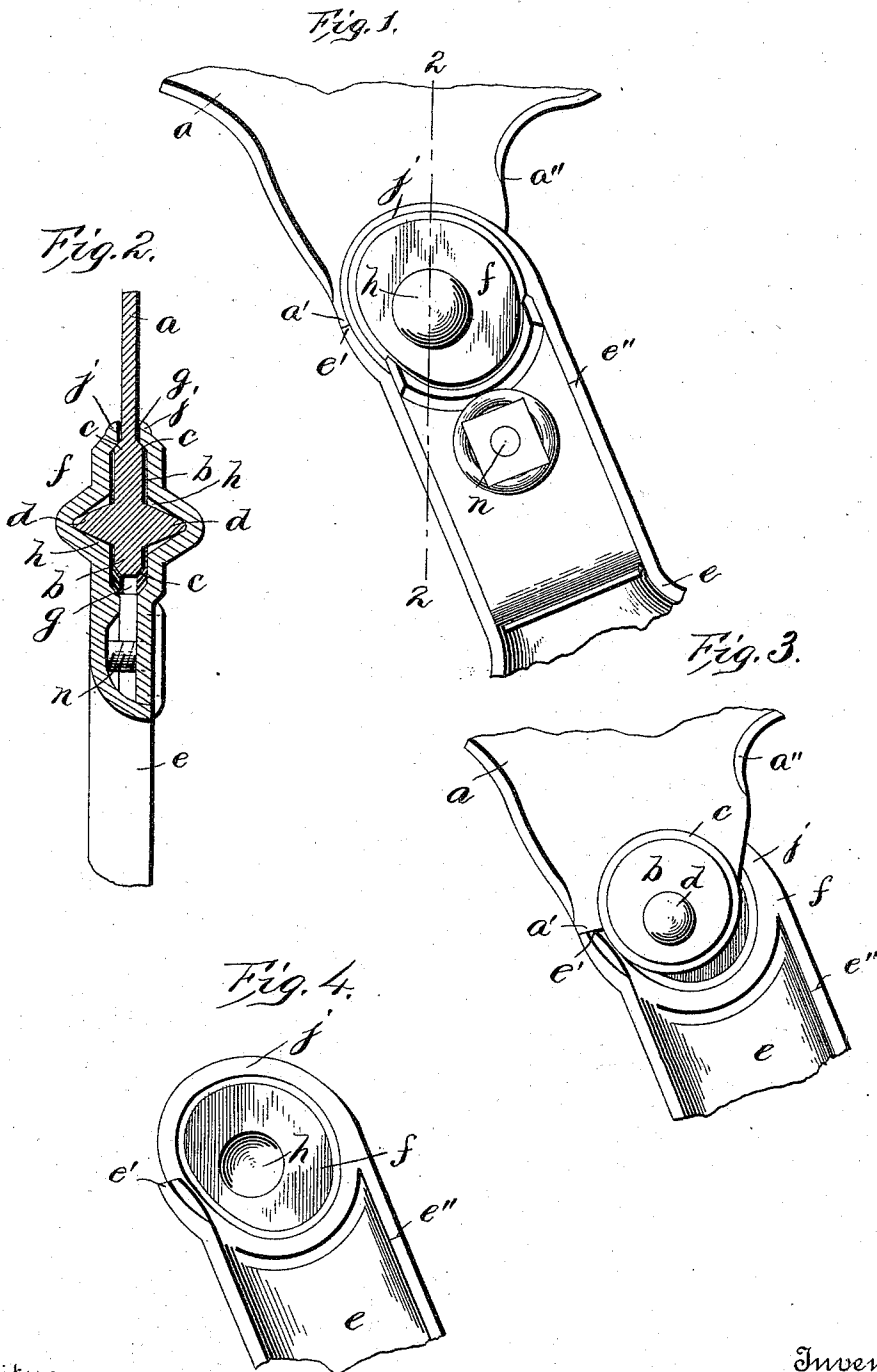


(No Model.)

J. H. STIGGLEMAN.
FURNITURE HINGE.

No. 526,270.

Patented Sept. 18, 1894.



Witnesses
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JAMES H. STIGGLEMAN, OF WABASH, INDIANA.

FURNITURE-HINGE.

SPECIFICATION forming part of Letters Patent No. 526,270, dated September 18, 1894.

Application filed April 21, 1894. Serial No. 508,513. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. STIGGLEMAN, of Wabash, in the county of Wabash and State of Indiana, have invented certain new and useful Improvements in Furniture-Hinges; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in furniture hinges.

The object of the invention is to attain the desired requirement of spring tension hinges, by strong, simple and durable devices composed of a minimum number of parts and without the employment of springs or rubber buffers.

A further object of the invention is to provide a joint connection between the standards and swinging seats of school furniture, exceedingly durable and simple in construction and wherein the parts are so constructed and arranged as to permit the seat to move easily yet without sudden blows and jars and consequently with a minimum amount of noise.

The invention consists in certain novel features of construction and in combination of parts more fully and particularly pointed out hereinafter and described in the claims.

Referring to the accompanying drawings, Figure 1, is a side elevation showing a portion of the seat standard and the swinging seat arm journaled thereto. Fig. 2, is a sectional view on the line 2—2 Fig. 1. Fig. 3, is a side elevation with the cap or plate forming one member of the journal box removed, showing the seat arm in the lowered position. Fig. 4, is a side view of the inner face of the seat standard.

In the drawings *a*, is one of the seat arms which carry the seat and is provided with a downward extension having the lateral enlarged flat circular head or double cam *b*, having the outwardly beveled edges *c*, on opposite sides of said extension or end.

d, d, are conical pintles or journals preferably formed integral with the seat arm and projecting outwardly from opposite sides of

said rounded end or double cam in the same axial line. These conical journals are arranged eccentrically to the double cam or flat round head *b*, preferably on opposite sides of the lower portion thereof as clearly shown.

e, is the supporting arm of the standard. The supporting arm is provided with the stationary portion of the hinge composed of a sectional journal box *f*, embracing the said head, with the slots or space *g*, between the members to permit swing of the arm *a*, provided with the head. The members are provided with the depressions or sockets projecting laterally from the outer side of the members and forming the interior cone-shaped bearings *h*, in which the cone-shaped journals *d, d*, fit and turn. These cone-shaped bearings are arranged eccentrically within their respective box members preferably in the lower front portions thereof. Each member has an inturned outwardly beveled edge or flange *j*. Said inturned edges embrace the head of the seat arm and are adapted to engage the beveled edges thereof.

The supporting arm forms one member of the journal box, and is provided with the rigid primary or supporting stops or shoulders *e', e''* at opposite sides of the concaved member of the journal box adapted to be engaged, respectively, by the stops or shoulders *a', a''*, formed by the edges of seat arm, at the extreme limits of up and down movements of the seat arm.

The outer member of the journal box is formed into a cap or plate removably fitted in a socket in the supporting arm and secured by one or more bolts, *n*.

e', e'', are the primary stops at all times. The cams and beveled edges as described are for the sole purpose of arresting the momentum of the seat, either up or down, just before it reaches these primary or final stops, and thus prevents what otherwise would be a harsh or hard impact. These cams answer the same purpose as the spring plate and cam faces of other spring hinges; that of arresting the motion of the seat, and by spreading the journal box apart a little allows the primary stops to come together without noise.

It will be observed that the journals and their bearings are so arranged that the bev-

eled edges of the head will engage and gradually bind against the beveled edges *j*, of the journal box as the seat approaches the limit of downward and upward movements, there-
 5 by causing the parts to gradually bind or wedge and stop without sudden blows or jars. The beveled edges of the head at the beginning and ending of its stroke also tend to separate or spread the sections of the journal box
 10 by engaging the edges thereof; hence tending to cushion or yieldingly stop the movement of the seat arm without noise or jar.

The cam has the journals eccentrically arranged thereon so that the edge of the cam
 15 will be thrown into and out of contact with the edge of the box even though the journals be not eccentric to the edge of the box.

The journal box can be easily and quickly adjusted by tightening the bolt at any time,
 20 to take up wear and to prevent rattling.

It is evident that various changes might be made in the forms, arrangements and constructions of the parts described without departing from the spirit and scope of my invention, hence I do not wish to limit myself to
 25 the exact construction herein set forth, but consider myself entitled to all such changes as fall within the spirit and scope of my invention.

30 Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of the supporting arm having the sectional journal box provided
 35 with the inturned beveled edges and the eccentric bearings, and the seat arm having the head in said box provided with beveled edges for the purpose set forth, and the conical journals eccentrically arranged on opposite
 40 sides of the head, substantially as described.

2. A furniture hinge comprising the seat arm having the circular head having beveled edges, and eccentric lateral pintles, and provided with stops on opposite sides thereof;
 45 and the support provided with the separable

journal box inclosing said head and having the inwardly extending edges coacting with said beveled edges of the head and provided with the bearings, for said pintles and the rigid stops to coact with said stops of the seat
 50 arm, substantially as described.

3. The furniture hinge comprising one arm having a flat head provided with cam edges and turning on an axis eccentric to said
 55 edges, and the other arm having a journal box inclosing said head and composed of two dish plates on opposite sides of said head so that the inturned edges of the plates coact with the cam edges of the head for the purpose,
 60 substantially as described.

4. A furniture hinge comprising an arm having the head thereon provided with beveled edges and conical pintles projecting eccentrically from opposite sides thereof, and the support provided with the journal box
 65 comprising the two sections inclosing the head and provided with the inturned beveled edges to coact with said head edges and between which said arm moves and also provided with the conical depressions eccentrically arranged
 70 to receive said pintles, substantially as described.

5. The combination of a seat arm provided with a flat cam head, a supporting arm having a journal box for said seat comprising
 75 two sections embracing said head and provided with beveled edges coacting with the edges of the cam head and between which the arm moves, and having the bearings for said pintles, one section of the box formed in the
 80 supporting arm and a plate adjustably bolted to the support forming the other section, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two
 85 witnesses.

JAMES H. STIGGLEMAN.

Witnesses:

JOHN H. DICKEN,
 JAMES LUMAREC.