

H. S. HALE.

SPRING ATTACHMENT FOR CRADLES.

No. 171,798.

Patented Jan. 4, 1876.

FIG. 1.

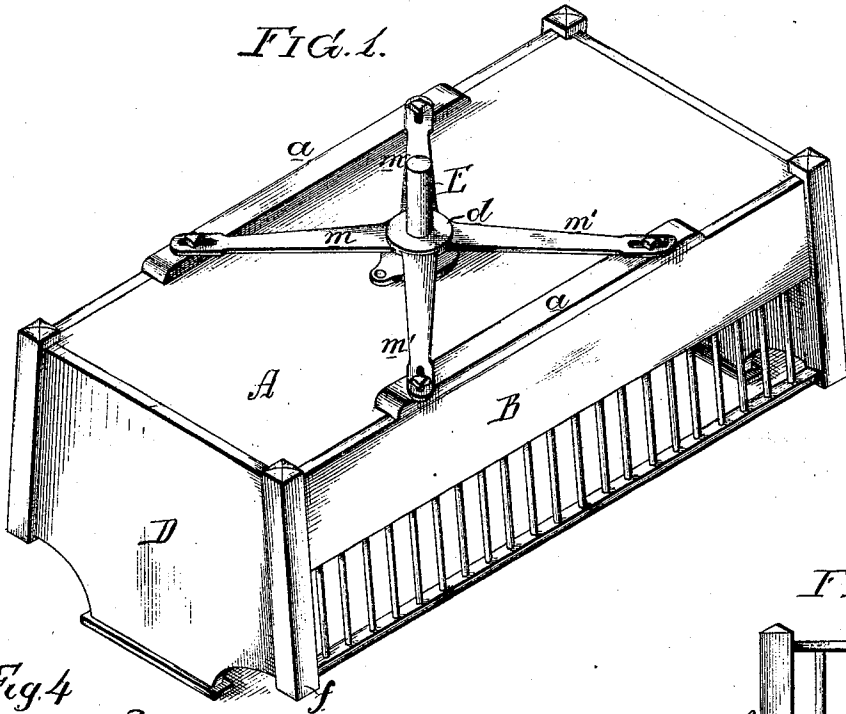


Fig 4

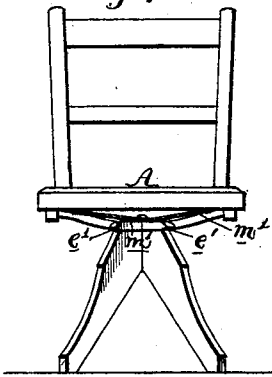


FIG. 2.

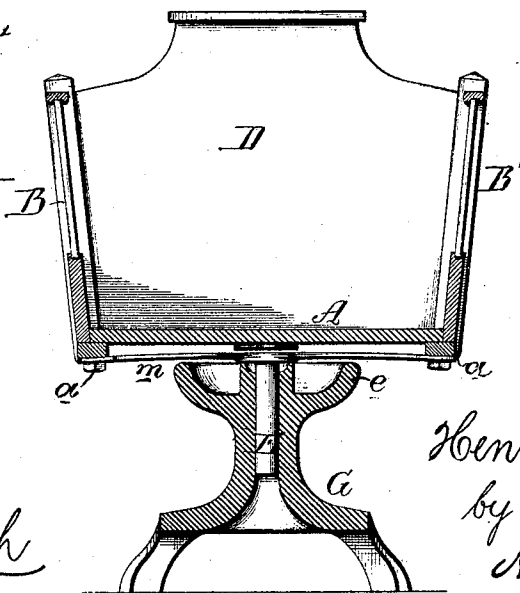
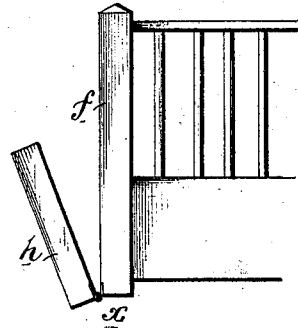


FIG. 3.



Witnesses
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Thomas M. Strain

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by his Attorneys
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UNITED STATES PATENT OFFICE.

HENRY S. HALE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF, ARTEMAS KILBURN, J. WARREN HALE, CHENEY KILBURN, AND WARREN HALE, OF SAME PLACE.

IMPROVEMENT IN SPRING ATTACHMENTS FOR CRADLES.

Specification forming part of Letters Patent No. 171,798, dated January 4, 1876; application filed November 6, 1875.

To all whom it may concern:

Be it known that I, HENRY S. HALE, of Philadelphia, Pennsylvania, have invented an Improved Spring Attachment for Cradles, Chairs, &c., of which the following is a specification:

The object of my invention is to provide the body of a cradle or seat of a chair with a flexible support, which will permit the said cradle or chair to be vibrated in any direction; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of the inverted body of a cradle with my improvement, and Fig. 2 a transverse section.

The body of the cradle consists, in the present instance, of the base A, two railed sides, B and B', and opposite end pieces D D, and on the under side of the body, at opposite edges of the same, are two strengthening-strips, *a a*. E is a central pin, attached to, or forming a part of, a hub, *d*, from which project four radial spring-arms—two of them, *m m*, extending to the strengthening-bar *a* on one side of the body of the cradle, and two of them, *m' m'*, to the strengthening-bar *a* on the opposite side, each arm having, in the present instance, a slot, through which a set-screw passes into the said bars. The base of the body of the cradle is situated a short distance above the spring-arms, so that it can have a restricted vertical movement; and, owing to the arrangement of the spring-arms, (shown in Fig. 1,) the body is at liberty to vibrate in any direction, the extent of vibration being limited by an annu-

lar projection, *e*, on the stand G, in which the central pin E is arranged to turn.

Each corner-piece *f* of the body of the cradle may be provided with a leg, *h*, hinged at *x*, as shown in Fig. 3, these legs being retained by any suitable device in an elevated position when the body of the cradle has to be vibrated in the manner described, and being turned down and secured by a locking device, so as to form one of four legs, the latter resting on the floor, and converting the body of the cradle into a crib incapable of rocking.

Fig. 4 illustrates my invention as applied to a chair, *m' m'* being the spring-arms, similar to those above described, and the extent of vibration being limited by the arms or projections *e' e'*, in place of the annular projection *e*, as in Fig. 2.

I claim as my invention—

1. The combination of the pin E, adapted to a suitable stand, G, and the spring-arms *m m' m'*, attached to the body of a cradle or seat of a chair, all substantially as and for the purpose herein set forth.

2. The combination of the central pin E and its four spring-arms, attached to the body of a cradle or seat of a chair, with a stand, G, adapted to the said pin, and provided with an annular stop, *e*, all substantially as set forth.

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

HENRY S. HALE.

Witnesses:

HARRY HOWSON, Jr.,
HARRY SMITH.