

UNITED STATES PATENT OFFICE.

ARTHUR J. FALL, OF HUDSON, IOWA, ASSIGNOR TO BALL-BEARING HAT-STAND COMPANY, OF WATERLOO, IOWA.

ADJUSTABLE DISPLAY-STANDARD.

SPECIFICATION forming part of Letters Patent No. 791,682, dated June 6, 1905.

Application filed June 16, 1904. Serial No. 212,783.

To all whom it may concern:

Be it known that I, ARTHUR J. FALL, a citizen of the United States of America, and a resident of Hudson, Blackhawk county, Iowa, have invented certain new and useful Improvements in Adjustable Display - Standards, of which the following is a specification.

My invention relates to adjustable display-standards; and the object of my invention is to furnish a supporting-standard for hats or other articles provided with an adjustable rack for firmly holding the hats in place, the standard being vertically movable and the adjustable rack being inclinable and rotatable in various directions. This object I have accomplished by the means which are hereinafter described and claimed and which are illustrated in the drawings, in which—

Figure 1 is a vertical section of my adjustable display-standard. Fig. 2 is a horizontal section of the adjustable rack on a plane just above the rotatable plate *b*; and Fig. 3 is a detail view of the adjustable rack, showing the means for adjustment of the extensible rods.

Similar letters refer to similar parts throughout the several views.

A hollow boxing *a* contains a circular plate *b* within, said plate *b* being rotatable on a stud *c*, affixed to the upper cover of the boxing. A spring-lever *e* is affixed at one end near the circumference of the lower side of the plate *b*, the other end of said lever extending through a horizontal slot in the boxing *a* and furnished with a thumb-piece *f*. The free end of said lever passes through and is vertically movable within a staple *d*, affixed to the lower side of the plate *b*. The upper surface of said plate *b* is furnished with a plurality of studs *y*, on which are pivoted the rods *g h k l*, the free ends of said rods passing out through slots in the sides of said boxing *a*. Said rods are provided with the knobs *z* at their extremities. The horizontal slot *j'*, in which the lever *e* is movable, may have one or more notches *j'* in its lower side, in which said le-

ver may be dropped to hold the rods in any desired position of extension, as shown in Fig. 3.

The lower portion of the boxing *a* is spherically formed and is provided with a bearing within its base at *m*, which contains a smaller sphere *o*. This lower spherical base is rotatable within an outer concentric half-sphere *p*, which is the expanded upper portion of the hollow standard *r*. The closed lower end of the standard *r* is perforated to permit of the passage therethrough of the rod *s*, whose lower end is threaded and provided with an adjusting-nut *v*. The standard *r* is vertically movable within the hollow upright *w*, the latter resting on a base *x*. The upper portion of upright *w* is provided with a split clutch *u*, exteriorly threaded, and over which moves a compression-nut *t*. A coil-spring *q* within the standard *r* connects together the upper end of the rod *s* and the lower end of a pin *n* in the sphere *o*, putting the latter under tension and causing it to press downward against the bearing *m*.

When the compression-nut *t* is partially removed from the clutch-sleeve *u*, the standard *r* becomes vertically slidable within the upright *w*. The boxing *a* may be rotated or inclined in various directions, the tension of the spring *q* upon the sphere *o* tending to keep it in the desired position as against the exercise of any ordinary force. The rods *g h k l* may be projected outwardly by causing the plate *b* to rotate horizontally to the extent of a one-quarter revolution. This is done by raising the thumb-piece *f* slightly and moving it along the slot in the boxing in the desired direction. By moving the thumb-piece *f* in the reverse direction said rods are withdrawn within the boxing, as indicated by the dotted line in Fig. 2. Said rods may of course be extended outward to any distance desired within their limits. When the rods are projected, as shown, the upper part of the apparatus forms a rack suitable to be adjusted to hold different sizes of hats or other articles for display purposes.

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

1. An adjustable display-standard, consisting of an upright, a standard slidable in said upright having a hemispherical bearing, a boxing with a spherical base rotatable in said bearing, an inner bearing in said boxing, a sphere in said inner bearing, a spring connecting said sphere and the lower end of said standard, a rotatable plate in said boxing, means for rotating said plate, and rods pivoted to said plate and extending through openings in said boxing, substantially as shown and described.
2. An adjustable display-standard, consisting of an upright, a standard slidable in said upright having a hemispherical bearing, a boxing with a spherical base rotatable in said bearing, an inner bearing in said boxing, a sphere in said inner bearing, a spring connecting said sphere and the lower end of said standard, means for adjusting the tension of said spring, an adjustable compression-clutch connecting said upright and said standard, a rotatable

plate in said boxing, means for rotating said plate, and rods pivoted to said plate and extending through openings in said boxing, substantially as shown and described.

3. An adjustable display-standard, consisting of an upright, a standard slidable in said upright having a hemispherical bearing, a boxing with a spherical base rotatable in said bearing, an inner bearing in said boxing, a sphere in said inner bearing, a spring connecting said sphere and the lower end of said standard, a rotatable plate in said boxing, means for rotating said plate, rods pivoted to said plate and extending through openings in said boxing, and means for holding said rods in any desired position of extension, substantially as shown and described.

Signed at Hudson, Iowa, this 10th day of June, 1904.

ARTHUR J. FALL.

Witnesses: -

C. W. BEDFORD,
A. L. ALEXANDER.