

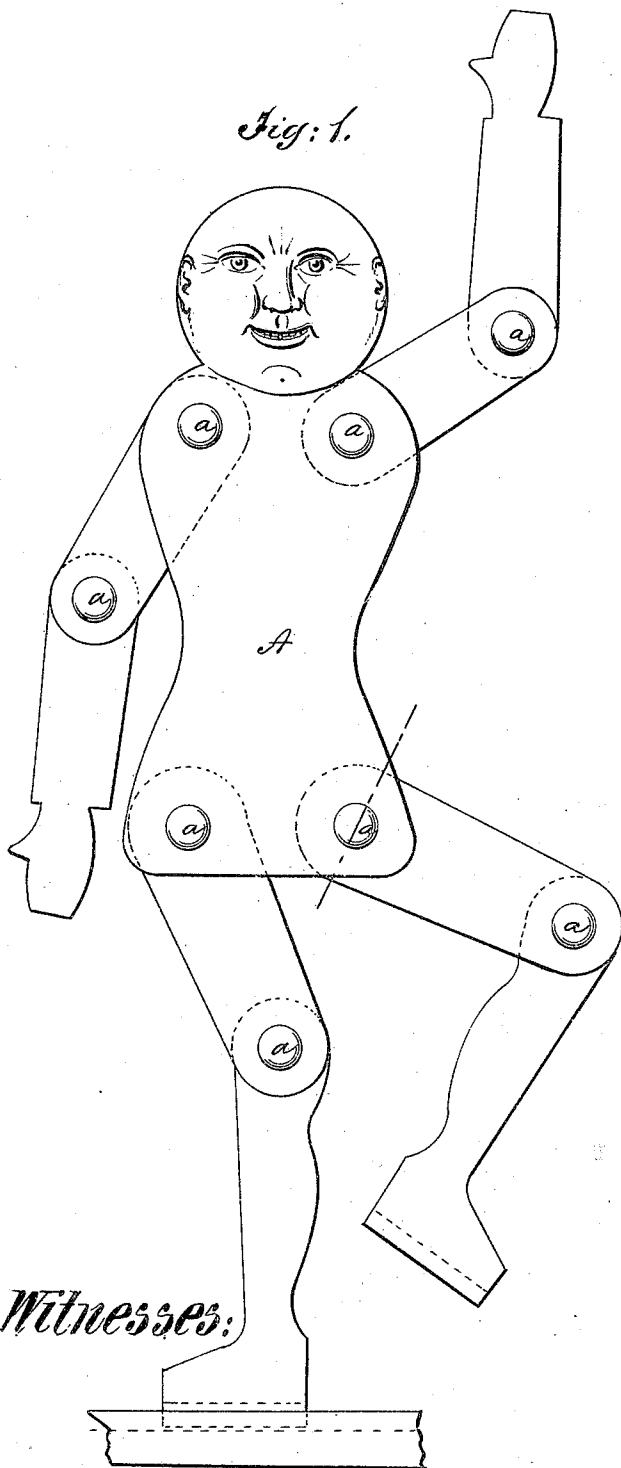
C. M. CRANDALL.

JOINTS FOR DOLLS AND OTHER FIGURES.

No. 172,709.

Patented Jan. 25, 1876.

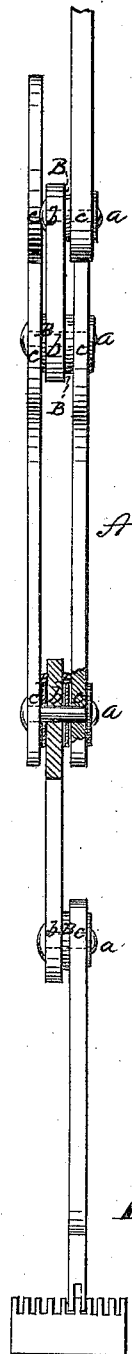
Fig: 1.



Witnesses:

St. L. Mattenberg
M. Lovell

Fig: 2.



Inventor:

Charles M. Crandall
per [Signature]
Att'y

UNITED STATES PATENT OFFICE.

CHARLES M. CRANDALL, OF MONTROSE, PENNSYLVANIA, ASSIGNOR TO
C. M. CRANDALL & CO., OF SAME PLACE.

IMPROVEMENT IN JOINTS FOR DOLLS AND OTHER FIGURES.

Specification forming part of Letters Patent No. **172,709**, dated January 25, 1876; application filed
September 22, 1875.

To all whom it may concern:

Be it known that I, CHARLES M. CRANDALL, of Montrose, in the county of Susquehanna and State of Pennsylvania, have invented a new and useful Improvement in Children's Toys; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to an improvement in children's toys; and it consists in a jointed toy figure, the joints or adjustable parts secured thereto by means of rivets, and having washers interposed between the surfaces of said adjustable parts, substantially as herein-after particularly described.

In the accompanying sheet of drawings, Figure 1 is a front view of a toy figure, showing rivets for joining the parts; and Fig. 2, an edge view of same, partly in section, showing my invention.

Similar letters of reference indicate like parts in both figures.

A represents a toy figure, made from wood or other suitable material, the several joints of which are made adjustable by rivets *a* and interposed washers B, which also secure the several parts together. These attachments are constructed so that the arms, legs, &c., may be made to assume natural positions by the adjustment of the several parts, and it is necessary that they be united with sufficient friction to enable the parts to remain in any given position; but, as the friction between the adjacent surfaces (particularly if of wood) would speedily cause the joints to work so loose that they would not maintain such given

positions, I interpose between the surfaces *b* and *c* a metallic washer, B, so that when the parts are riveted together they will be brought so closely in contact with the surfaces of this washer that it will be tightly confined to the surfaces of the parts to be joined, preventing these surfaces from wearing away by undue friction, for, as the parts are moved, the washer will turn on the shank of the rivet, and in this way permit the adjustment of such parts; and, besides, the friction being confined mainly to the washer on the rivet as it turns, the adjustment of the several parts is easily and smoothly effected.

I am aware that washers, in their construction or general application for filling up spaces, reducing friction, and receiving the wear of parts united together, are not new. I am also aware that friction-joints in toy figures formed by spring-tenons have been used, and I claim none of these; but I am not aware that a toy figure specially constructed with rivets and interposed washers at the joints for the purpose stated has ever been known.

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

As a new article of manufacture, a jointed toy figure, the joints of which are constructed with rivets and interposed friction-washers, substantially as shown and described, whereby the parts may be adjusted in various given positions, as specified.

CHARLES M. CRANDALL.

Witnesses:

M. LOVELL,
H. L. WATTENBERG.