No. 729,064. PATENTED MAY 26, 1903.

F. W. HALE.

DUMB BELL.

APPLICATION FILED NOV. 13, 1902.

NO MODEL.

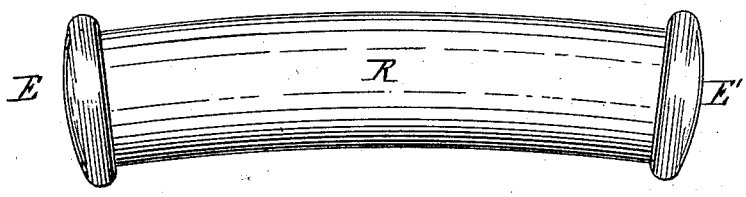


Fig. 1.

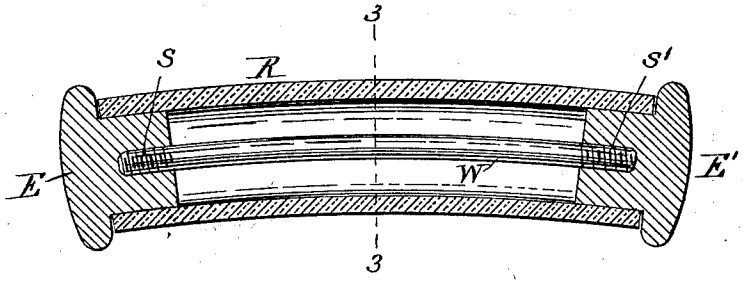


Fig. 2.

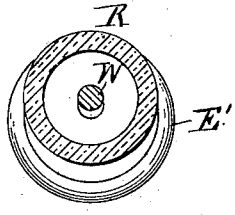


Fig. 2.

WITNESSES

Frank G. Parker.

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No. 729,064. Patented May 26, 1903.

UNITED STATES PATENT OFFICE.

FRANK W. HALE, OF BOSTON, MASSACHUSETTS.

DUMB-BELL.

SPECIFICATION forming part of Letters Patent No. 729,064, dated May 26, 1903.

Application filed November 13, 1902. Serial No. 131,228. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. HALE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Dumb-Bells, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of dumb-bells that do not depend upon their weight for their usefulness, but upon the radial resiliency of the part that is grasped by the hand of the user; and it consists in the materials used and in the construction and arrangement of the parts.

The object is to produce a light dumb-bell the handle of which has a practically unlimited radial resiliency. This object I attain by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view showing my improved dumb-bell in elevation. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section taken on line 3 3 of Fig. 2.

Heretofore dumb-bells of this class have been composed of metallic parts, the inward motion of which has a limit beyond which they could not be compressed, as they would come in contact with fixed parts or with each other, and thus limit the motion due to compression, in which case the user would find that he was exerting pressure against a solid and without satisfaction.

My improvement produces a dumb-bell that will yield indefinitely—that is, although the resistance to pressure is constantly increasing it never becomes unyielding and will always respond to pressure and always feel "alive."

I construct my device in the following-described manner: The body part consists of a flexible tube R, which should be elastic and absolutely impervious to air. The ends of the tube R are closed by end blocks E E′, which are united to each other by a curved rod W, which has screw-threads at its end, as shown at S S′. (See Fig. 2.) The curved rod W will hold the end blocks E E′ in such relation to each other and to the tube R that the said tube will be held so as to form a curve, and thus fit the hand of the user.

Although I prefer that the body of the dumb-bell should be curved, I do not confine myself to that form. It is desirable, if not essential, that the hollow space within the body of the dumb-bell should be air-tight.

I claim—

1. A dumb-bell comprising: an elastic tube: closely-fitting end blocks: and a rod constructed to hold the said end blocks firmly in place, substantially as and for the purpose set forth.

2. A dumb-bell: comprising an elastic tube: closely-fitting end blocks: and a curved rod constructed to hold the said end blocks, substantially as and for the purpose set forth.

3. A dumb-bell comprising: an elastic tube having closely-fitting end blocks: and a rod constructed to hold the said end block in position, the parts together forming an air-tight structure, substantially as and for the purpose set forth.

4. A dumb-bell comprising an elastic tube constructed to fit the hand and provided with closely-fitting end pieces; thereby producing an air-tight cylindrical compression-cushion for hand exercise, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 3d day of November, A. D. 1902.

FRANK W. HALE.

Witnesses:
FRANK G. PARKER,
JOHN BUCKLER.