(No Model.)

L. METZGER.

DUMB BELL.

No. 560,517. Patented May 19, 1896.

Fig. 1

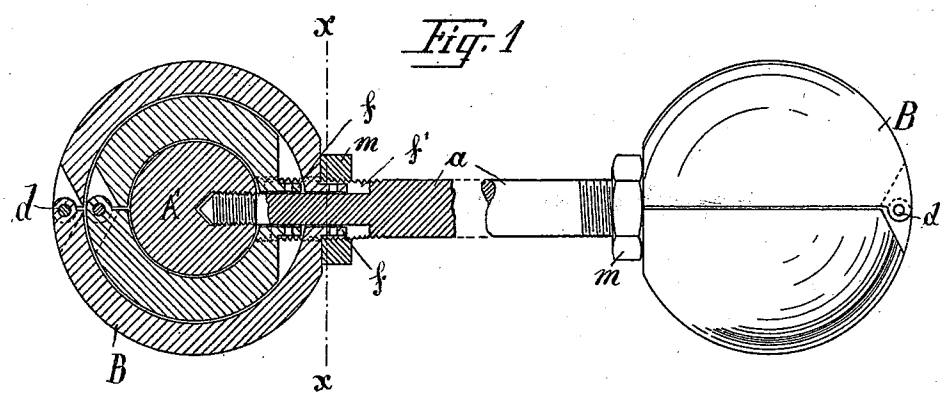


Fig. 2

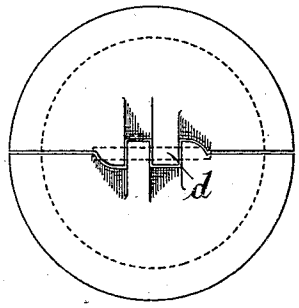


Fig. 4

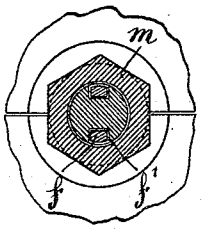


Fig. 3

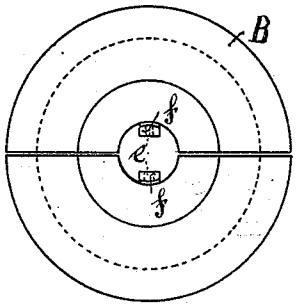


Fig. 5

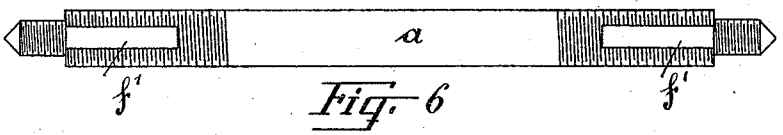
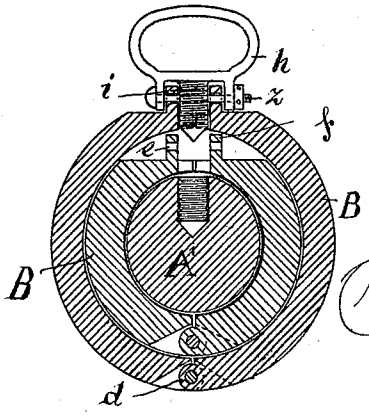


Fig. 6



Witnesses
H. van Oldenneel
E. A. Scott

Inventor
Ludwig Metzger
by Richardson
Attorneys

UNITED STATES PATENT OFFICE.

LUDWIG METZGER, OF MUNICH, GERMANY.

DUMB-BELL.

SPECIFICATION forming part of Letters Patent No. 560,517, dated May 19, 1896.

Application filed January 6, 1896. Serial No. 574,495. (No model.)

To all whom it may concern:

Be it known that I, LUDWIG METZGER, a subject of the King of Bavaria, and a resident of Munich, in the Kingdom of Bavaria, Empire of Germany, have invented certain new and useful Improvements in Dumb-Bells, of which the following is a specification.

Dumb-bells cast of one piece, as used hitherto, had always to be exchanged when it was desired to work with heavier or lighter weights.

The present invention refers to dumb-bells the weight of which can be changed optionally. This object is attained by means of removable hollow spheres which can be applied concentrically over the solid spheres at the ends of the bells proper. Two forms of construction of such dumb-bells are shown in accompanying drawings.

Figure 1 shows a view, half-elevation and half-sectional, of a two-sphere dumb-bell. Fig. 2 shows an end view of a removable section. Fig. 3 shows a front view of the same; Fig. 4, a sectional view on the line $x\,x$ of Fig. 1. Fig. 5 is a view of the handle of Fig. 1. Fig. 6 is a sectional view of a single-sphere dumb-bell constructed according to the principles of this invention.

The dumb-bell is constructed of two solid spheres of iron A′, connected by a rod *a*, forming the handle. At least one of the spheres must be detachable by unscrewing, in order that the nuts *m*, serving for the attachment of the section B, can be placed on the same. The hollow spheres consist of two semispherical sections B B, hinged together and provided with catches *f*, which fit in corresponding notches *f′* in the connecting-rod *a*. These catches serve to fix the hollow spheres upon the dumb-bells, the nuts *m* being screwed close to the spheres, over the notches and catches. Instead of the nuts *m* simple rings can be used or any other form of holding device. Any number of like spherical sections can be fastened in the same manner over the original sphere.

Fig. 6 shows the application of the invention to a single-sphere dumb-bell. In this case the hollow spheres are placed over the fixed spherical core A′, said hollow spheres being provided with eyes *e*, through which the bolt passes which serves as the fastening, and this bolt serves at the same time for the fixing of the handle *h*. In order to fix the latter to the core A′, it is provided with a threaded joint-piece *i*. The same spherical sections used for two-sphere dumb-bells can also be used for single-sphere dumb-bells by providing the catches *e* of the hollow spheres with holes, so that they can be used also for single-sphere dumb-bells.

The dumb-bells could also be given another shape without changing the essential feature of the invention.

I claim—

In combination with a dumb-bell, the weight on the end thereof and hinged sections encircling said end and means for holding said sections in place, substantially as described.

In witness whereof I hereunto set my hand in presence of two witnesses.

LUDWIG METZGER.

Witnesses:

RALPH STEINER,

EMIL HENZEL.