J. W. MEYER.

METAL TOY.

APPLICATION FILED JULY 3, 1915.

1,205,101. Patented Nov. 14, 1916.

Fig. 1.

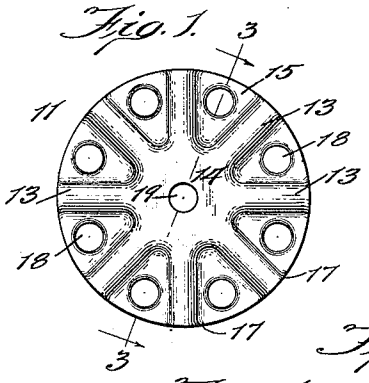


Fig. 2.

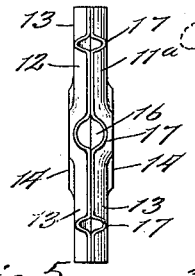


Fig. 3.

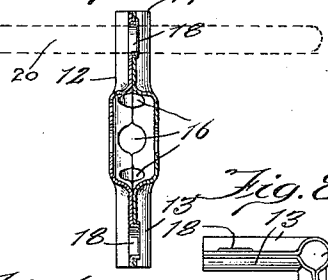


Fig. 8.

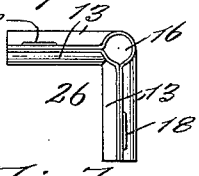


Fig. 4.

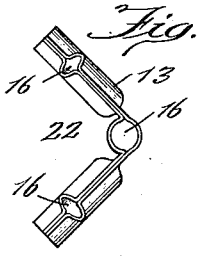


Fig. 5.

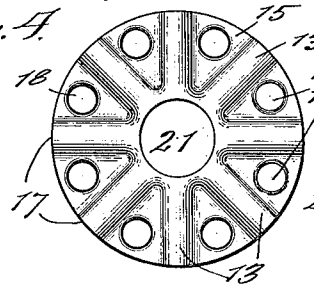


Fig. 6.

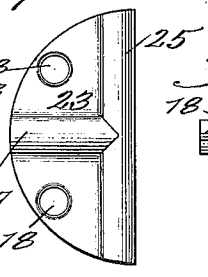


Fig. 7.

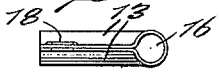
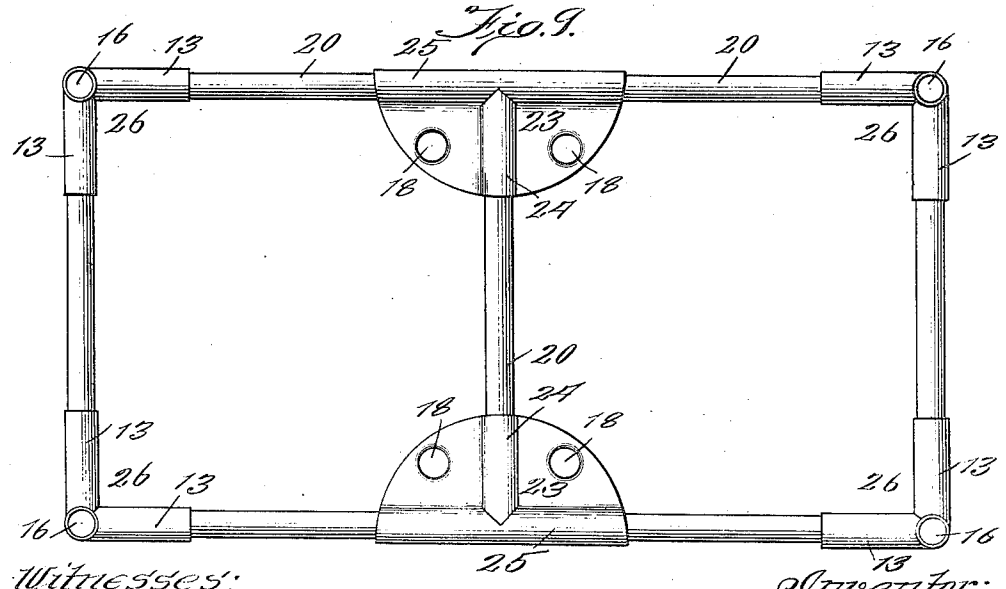


Fig. 9.



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UNITED STATES PATENT OFFICE.

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METAL TOY.

1,205,101. Specification of Letters Patent. Patented Nov. 14, 1916.

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To all whom it may concern:

Be it known that I, JOHN W. MEYER, a citizen of the United States, residing at Wilmette, in the county of Cook and State of Illinois, have invented new and useful Improvements in Metal Toys, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to improvements in metal toys and has for its object the production of a toy comprising a plurality of members capable of being assembled or put together so as to form a great variety of miniature structures such as machines, tools, implements and the like.

A further object of my invention is the production of a device in which the metallic holding members are adapted to automatically grip the connecting members holding the parts firmly together.

A further object is the production of a device in which the separate parts of the holding members are yieldingly held together.

A further object is the production of a device that can be readily cleaned and kept in sanitary condition.

A further object is the production of a device the members of which are of simple construction and can be cheaply manufactured, and not liable to disarrangement.

These and such other objects as may hereinafter appear are attained by my device, embodiments of which are illustrated in the accompanying drawings in which—

Figure 1 represents a side elevation of one form of the holding member; Fig. 2 represents an end elevation of Fig. 1; Fig. 3 represents a sectional view on the line 3—3 of Fig. 1 looking in the direction indicated by the arrow; Fig. 4 represents a slightly modified form of my device bent to form a right angle; Fig. 5 represents a flattened view of the metal before bending it to form the member shown in Fig. 4; Fig. 6 represents an elevation of another member in the form of a half-circle; Fig. 7 represents a top plan view of Fig. 6; Fig. 8 represents a modified form of Fig. 6 bent to form right angles; Fig. 9 represents a structure formed from various members heretofore illustrated.

Like numerals of reference indicate like parts in the several figures of the drawings.

Referring now to the drawings, the holding member 11 shown in Fig. 1 is formed from a pair of circular metal plates 12, 12ª, preferably pressed into the shape shown and formed with semicylindrical raised portions 13, 13, and a centrally raised boss 14. The portions 15 of the plates between the embossed portions 13 are flat so that when the two members 12, 12ª are fitted together, the portions 15 of each plate abut and the two embossed portions 13 form gripping sockets 16 extending radially from the center member. I may, if desired, have the outer end of the embossed portion flared slightly as shown at 17 in Fig. 1.

Fitting within the plate and between the sockets 13 are a series of eyelets or gromets 18, and a central opening 19 is also provided. A plurality of smooth rods or sticks 20 are furnished adapted to fit within the sockets 16 and gromets 18 and be gripped thereby and held securely in place. The provision of the flaring end serves to prevent the rod from being split or slivered when being put into place within the socket.

In Fig. 5 I have shown a slightly modified form of Fig. 1 with a large central opening 21. This permits the folding of the member 15 to an angle of 90 degrees when it will assume the position shown in Fig. 4, and designated by the numeral 22.

Another form of holding member is shown at 23 in Fig. 6 in the shape of a single piece folded into a half-circle with sockets 24 and 25 at right angles to each other, and also provided with a pair of gromets. The member shown in Fig. 6 by simply notching the metal can be folded into a right angle as shown at 26 in Fig. 8.

It will be readily appreciated that different members may be quickly assembled in a great variety of forms, and thus afford continuous amusement and entertainment for both old and young, and it may be a source of continued pleasure to invalids and shut-ins. The plates forming the holding members are rigidly yet resiliently held together, and the plurality of gromets or eyelets preferably formed integral from the metal itself, gives the metal sockets the proper degree of resiliency and still affords a firm grip on the connecting rods. I preferably make the parts of japanned or painted metal so they can be washed frequently and kept in a sanitary condition, a very essential feature when it is understood that the parts will be

handled a great deal and by a number of people. The metal about the mouth or open end of the socket is slightly flared so as to avoid all danger of splitting the rods when using the toy. This latter feature is of course not an essential one, but yet one that gives longer life to the toy.

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

1. A toy comprising a plurality of metal shapes fitted together and having a plurality of resilient sockets, a plurality of gromets positioned between said sockets and a plurality of rods formed to fit within said sockets and gromets.

2. A top comprising metal shapes formed from a pair of plates substantially circular in form and having a central opening, said plates being shaped to form a plurality of substantially radially extending sockets opening into the outer periphery of said shape and having a plurality of gromets positioned between said sockets thus forming a plurality of openings at right angles to the open ends of said sockets, and a plurality of rods formed to fit within said sockets and gromets and connecting said shapes into any desired form.

In witness whereof, I have hereunto subscribed my name.

JOHN W. MEYER.