

UNITED STATES PATENT OFFICE.

ADOLF HUCK, OF NUREMBERG, BAVARIA, GERMANY.

CONSTRUCTION TOY SET.

1,400,066.

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(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313.)

To all whom it may concern:

Be it known that I, ADOLF HUCK, a subject of the German Empire, residing at Gostenhofer Hauptstrasse 63, Nuremberg, Bavaria, Germany, have invented new and useful Improvements in Construction Toy Sets, of which the following is a specification.

My invention relates to improvements in construction toy sets and the object of my invention is to provide a combination doing away with certain disadvantages heretofore appearing in sets of the class referred to and admitting of certain advantages to be set forth hereinbelow.

In describing my invention I refer to the drawings herewith in which Figure 1 is a perspective view of an assembling or connecting piece, cubical in shape, as herein after referred to; Fig. 2 is a similar view of a polygonal piece of like character; Fig. 3 shows a detachable short arm, solid, adapted for connection of any of the said assembling pieces with any of the struts or tie-pieces hereinafter described; Fig. 4 is another perspective view of an assembling or connecting piece, of cylindrical shape, with arms therein inserted. Fig. 5 represents a tubular strut or tie-piece, intended to go on any of the said arms. Fig. 6 is a perspective view showing the several parts or members as connected with each other. Fig. 7 shows by way of example the frame of a chair made up of members as herein described. Figs. 8, 9, 10 are modifications of my detachable arm, this time tubular, hereinbelow referred to, and Figs. 11, 12, 13 are perspective views illustrating the connection with each other of the several members or parts, in case solid, or respectively, tubular arms are attached to the connecting piece referred to.

The known constructive members for the construction of various articles or devices, as for instance, toys or the like, show the disadvantage that they are either very bulky or that they require the keeping in stock of a considerable number of parts in order to allow the construction of the various objects; this is annoying to the constructor and makes the selection of the single part a difficult and tedious task.

In the present invention I employ connecting or assembling pieces which consist of the heretofore known cubes 1, Fig. 1,

polygonal bodies 2, Fig. 2, cylindrical bodies, Fig. 4, or other suitable bodies having recesses or holes 4 on all sides and faces and of detachable short arms 5 to be put together by the constructor as may be requisite for the particular construction. This saves the keeping in stock of too many variously shaped and branched off blanks and the ensuing search for any such assembling piece with two, three or more branches, required for the particular joint.

As in my invention the short arms are detachable and can be attached to or removed from the assembling or connecting piece constructions, may be completed and additions thereto made without trouble and, moreover, there are no displeasing unused blanks branching off from the structure.

The connecting or assembling pieces may be made in rather small size and the holes or recesses in the several sides or faces may be screw-threaded, adapted to receive the detachable arms the ends of which I prefer also to be provided with threads and they may be comparatively short without impairing the firmness of the structure. They may be either solid as shown in Figs. 3, 4, 6 or they may be tubular sockets 6, as illustrated in Figs. 5 and 8 to 13 inclusive. The screw ends I prefer to be shouldered and of smaller diameter than the main portion of the arms as shown at 7.

The struts or tie pieces have such dimensions that they may easily be inserted into the arms or passed over the same and they have various lengths and may be solid or tubular; in the latter case they may be made elastic by providing a longitudinal split or slot 8 in the body of the tube. In the case illustrated in Figs. 3, 4, 6 the short arms may each have an annular groove 9 and the struts may be correspondingly notched to secure a better connection between the strut and arm.

In the forms illustrated in Figs. 8 to 13 inclusive the tubular short arms 10 or attachable and detachable sockets may be provided with an adjusting screw 11, as in Fig. 8, or have a longitudinal split 12 as in Fig. 10 and in both cases the struts or tie-pieces may be either tubular or solid, as shown in Figs. 12 and 13, while with the socket represented in Fig. 9 tubular struts as illustrated in Fig. 11 may preferably be used.

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I do not restrict myself to the particular shapes described and shown on the drawings as the shape forms no part of my invention.

Duly considering the toy construction sets
5 hereinabove first mentioned and described and with the object in view hereinabove mentioned, I declare that what I claim as my invention is:

10 A set of toy construction members comprising in combination, assembling bodies provided with screw threaded recesses or holes in their faces, socket members adapted

to be screwed into said recesses, rods engaging with their ends said socket members, and means for detachably securing said rods and sockets in their relative position, substantially as described. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADOLF HUCK.

Witnesses:

HEINRICH FIETH,
OSCAR BOCK.