J. A. CHAPPUIS.

TOY BUILDING ELEMENTS.

APPLICATION FILED MAR. 4, 1919.

1,309,240. Patented July 8, 1919.

Fig. 1

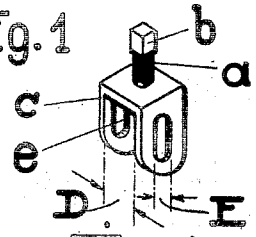



Fig. 2

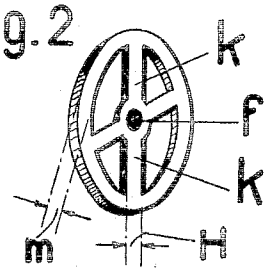



Fig. 3.

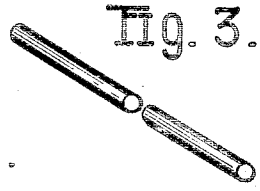


Fig. 4.

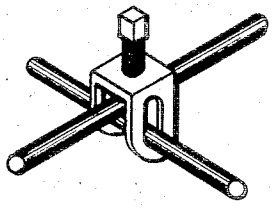


Fig. 5.

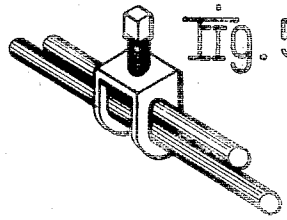


Fig. 6.

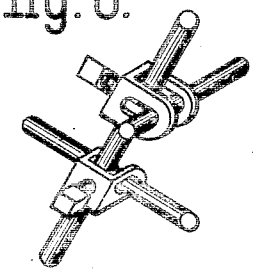


Fig. 7.

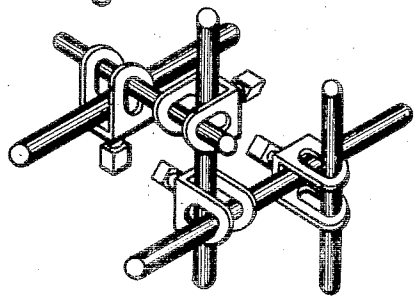


Fig. 8.

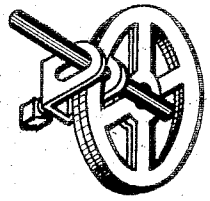


Fig. 10.

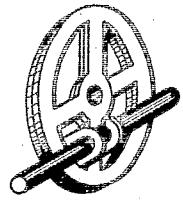


Fig. 9.

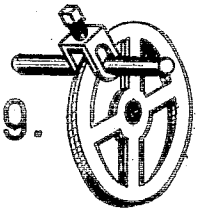
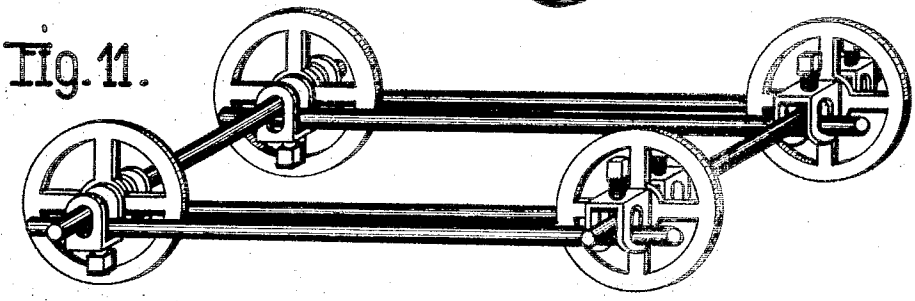


Fig. 11.



INVENTOR:

By John Albert Chappuis

Wm Wallace White

ATT'Y.

# UNITED STATES PATENT OFFICE.

JOHN A. CHAPPUIS, OF LA CHAUX-DE-FONDS, SWITZERLAND.

## TOY BUILDING ELEMENTS.

1,309,240. Specification of Letters Patent. Patented July 8, 1919.

Application filed March 4, 1919. Serial No. 280,568.

*To all whom it may concern:*

Be it known that I, JOHN ALBERT CHAPPUIS, citizen of the Swiss Republic, residing at 87 Rue du Nord, La Chaux-de-Fonds, Switzerland, have invented new and useful Improvements in Toy Building Elements, of which the following is a specification.

This invention relates to means for making models of articles such as machines or parts of machines and is intended for the use of young people and children.

The means is composed of at least an assortment of three kinds of elements by the assemblage of which models of all sorts of objects can be constructed. The articles to be erected may be stationary, movable or jointed as for example a chair, a bearing, a bridge, a carriage, an aeroplane, a pile driver, a catapult, etc.

The annexed drawing, given by way of example, shows in perspective one form of each of the members which make up an assortment of the elements and various assemblages of these elements.

The clamp shown in Figure 1 is formed of a metal strip bent to U-shape the base of which is formed with a threaded opening *a* in which can be adjusted a set screw having a square head *b*. In each of the arms *c*, *d*, of the clamp is formed an elongated opening *e*; these two openings are disposed symmetrically. The free space D between the arms is equal to the width E of the elongated opening *e*. The length of this opening is equal to twice the width.

The wheel shown in Fig. 2 cut from a metal plate and having four arms *k* is provided at the center with a hole *f* of a diameter equal to the width E of the opening *e* and to the space D of the clamp. The width H of the arms *k* is slightly less than the space D between the arms of the clamp so that the clamp may be placed around an arm *k* of the wheel (Fig. 10).

The width *m* of the peripheral part of the wheel is also less than the space D between the arms of the clamp with the same object (Fig. 8). The thickness of the wheel is such that two wheels placed against one another may be of a total thickness slightly less than the space D between the arms of the clamp so that the clamp may be placed around the circumference of the two wheels (Fig. 9).

Fig. 3 shows a metal rod; its diameter is slightly less than the diameter of the opening *f* of the wheel, than the width E of the opening *e* and the space D between the arms of the clamp so that the clamp and the wheel may be slid freely along the rod. The rod may be of any length.

To construct an article it is necessary to have at least an assortment of the three elements above described; generally several of these assortments will be used including rods of different lengths. The elements are introduced into one another so as to form an assemblage which may be secured rigidly by means of the screw *b* of the clamp. The clamp will serve especially to fix the rods together or to the wheels.

Fig. 4 shows the connection of two rods crossing one another.

Fig. 5 shows two rods placed end to end and assembled by means of a third rod.

Fig. 6 is an assemblage of three rods making angles of 90° with one another.

Fig. 7 shows an assemblage of three rods forming any angles.

Fig. 8 shows an assemblage of a rod with two wheels forming, for example, the head of a connecting rod.

Fig. 9 shows the same forming a handle.

Fig. 10 shows the same forming for example a bearing.

Fig. 11 is a simple assemblage forming the frame work of a carriage with its wheels.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

Means for building articles such as machines or parts of machines formed by at least an assortment of three construction elements namely a clamp of U shape including at its base a screw and with an opening in each of its two arms, a wheel perforated at the center and with arms and a hub, and an assembling rod, the dimensions of these elements being chosen so that the assembling rod may be introduced freely into the center of the wheel, into the opening of the clamp and between the two arms of the latter and the clamp may be placed around either the arms or the peripheral part of the wheel.

In testimony whereof I have signed my name to this specification.

JOHN A. CHAPPUIS.

Witnesses:

H. T. STEBBINS,

S. A. SUHAUZ.