M. T. C. WING.

TOY.

APPLICATION FILED MAY 27, 1908.

916,243. Patented Mar. 23, 1909.

Fig. 2.

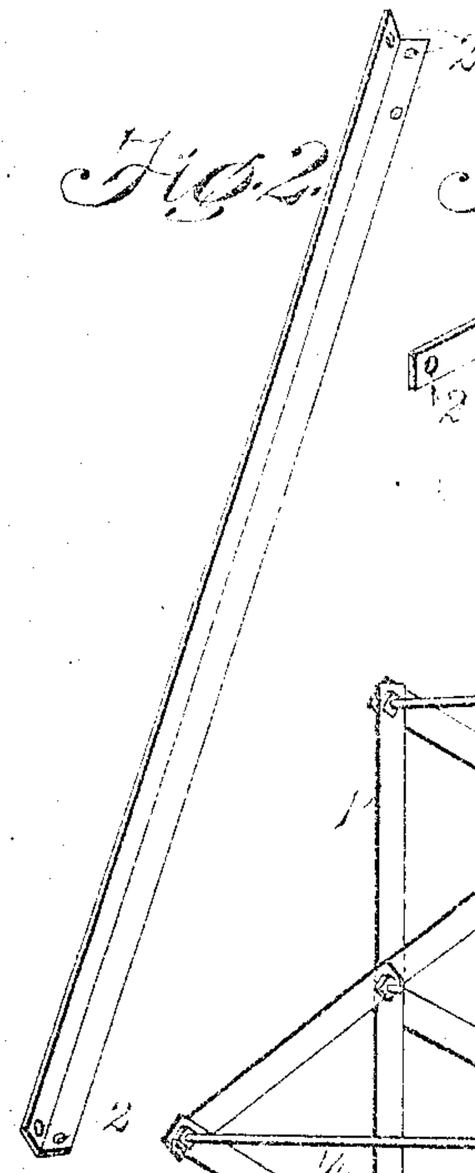

Fig. 4.

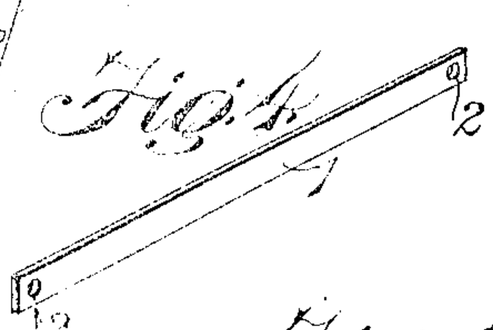

Fig. 6.

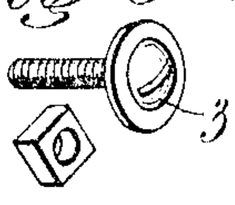

Fig. 3.

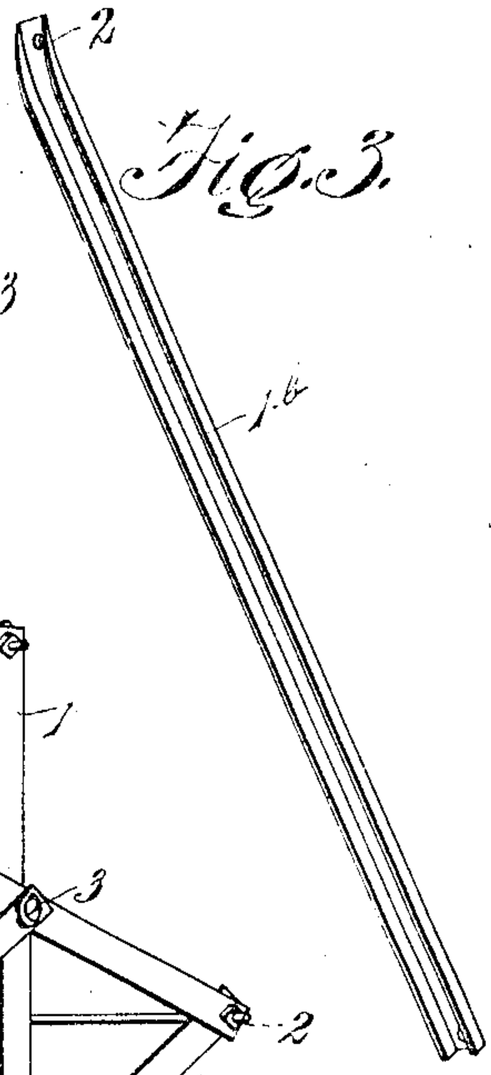

Fig. 5.

Fig. 1.

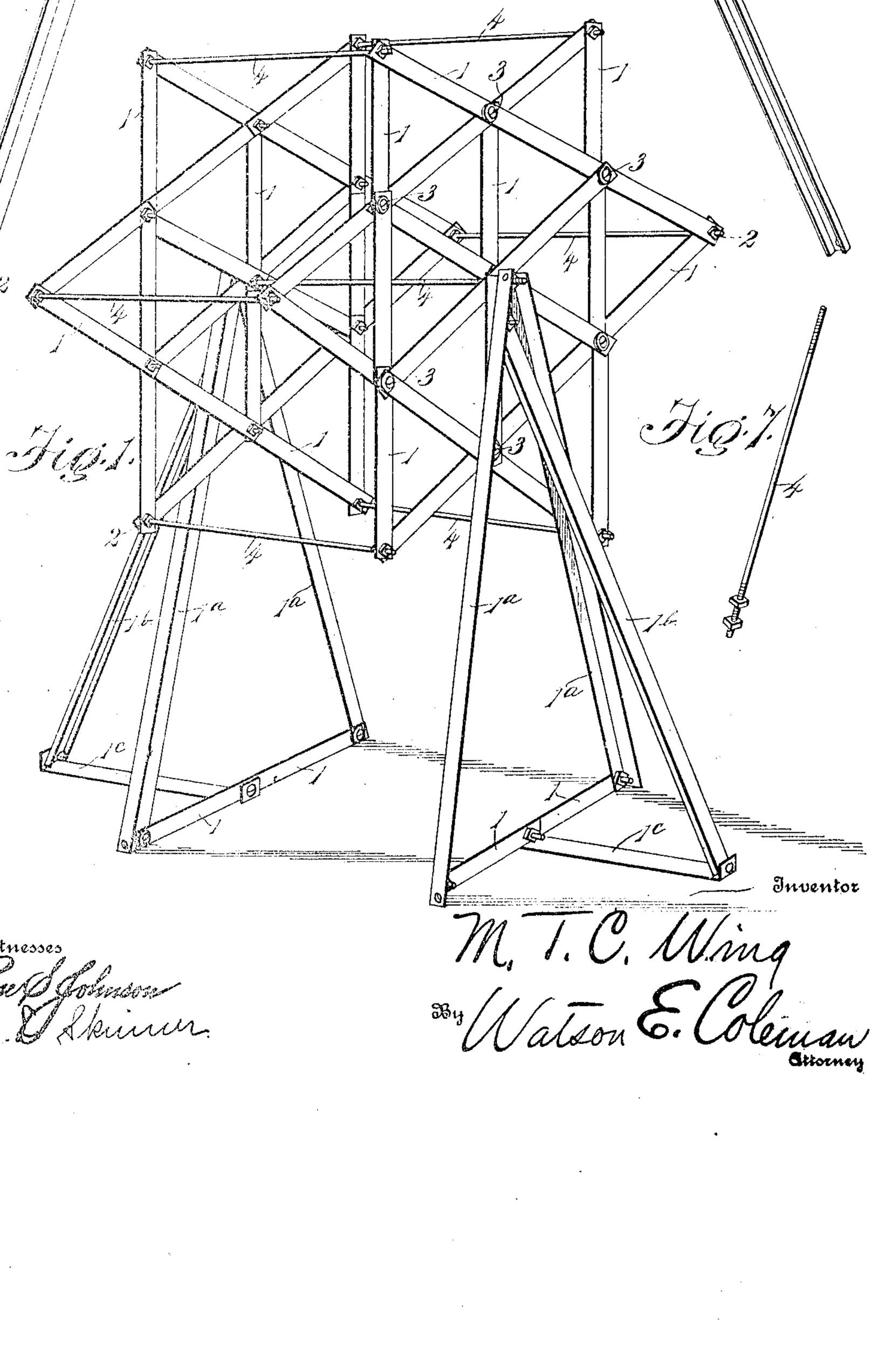

Fig. 7.



Witnesses

Rose Robinson

M. L. Skinner

Inventor

M. T. C. Wing

By Watson E. Coleman

Attorney

# UNITED STATES PATENT OFFICE.

MARCUS T. C. WING, OF PITTSBURG, PENNSYLVANIA.

## TOY.

No. 916,243. Specification of Letters Patent. Patented March 23, 1909.

Application filed May 27, 1908. Serial No. 435,315.

*To all whom it may concern:*

Be it known that I, MARCUS T. C. WING, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Toys, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in toys and more particularly to one consisting of a number of metal parts which may be connected together in different ways to produce toy bridges, Ferris wheels, towers, tank platforms, elevators, framework for buildings and various other mechanical, architectural and engineering structures.

The object of the invention is to provide a toy of this character having a great variety of uses and forms with a minimum of complex parts and difficult details and one which a bright boy cannot break or harm, or exhaust the playing possibilities of in a week or two, and which will develop the constructive and inventive faculties.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a toy Ferris wheel constructed in accordance with my invention; Figs. 2, 3, 4, 5, 6, 7 are perspective views of the several different parts from which the toy is made.

My improved toy bears the same relation to structural iron work that toy building blocks bear to structures of masonry, and it consists of a plurality of metal strips which may be readily connected together by removable bolts or tie rods to produce various architectural, mechanical and engineering constructions according to the ingenuity of the child playing with the toy. The metal strips may be flat, angular, channeled, or of other shape in cross section and of any length and width and they are formed with apertures to receive the bolts or tie rods and also with apertures by means of which sheets of card-board or other devices may be attached to them by suitable removable fastenings such as the ordinary paper fasteners.

The Ferris wheel shown in Fig. 1 is composed of two star-shaped sides, each of which is formed from a plurality of metal strips 1 of the same size and length and having apertures 2 adjacent to their ends, the apertures in the different strips being the same distance apart so that when three of the strips are placed together with their ends in overlapping relation and their apertures registering, they will produce an equilateral triangle. The apertures 2 are adapted to receive short connecting bolts 3 or longer tie rods 4. The bolts 3 are ordinary machine bolts, each having a head at one end and a nut upon its other screw threaded end, while the tie rods 4 are cylindrical rods having their ends screw threaded to receive a pair of clamping nuts 5 between which the strips 1 are clamped. The tie rods or bolts 4 are arranged between the points of the star-shaped sides of the wheel and also at the center of the latter, the one at the center serving as the pivot upon which the wheel may rotate and the ones at the points serving as pivots from which suitable cars or carriages (not illustrated) may be suspended. Said tie rods also serve to space the two sides of the wheel apart. The short bolts 3 are arranged at other points upon the sides of the wheel where several of the strips 1 have their ends brought together in overlapping relation. The pivot for the wheel is mounted in two upright supports or frames each of which is composed of two angle metal strips $1^a$, a channeled metal strip $1^b$, two of the strips 1 and an extra strip $1^c$ having angularly bent apertured ends. The two angular strips $1^a$ are arranged in upwardly converging relation and having their upper ends united by the pivot of the wheel and their diverging lower ends connected by one or more of the strips 1. The channeled strip $1^b$ has its upper end connected to the converging upper ends of the strips $1^a$ and its lower end secured to one of the upturned ends of the strip $1^c$, the other end of which latter is connected to the strip or strips 1, as clearly shown in Fig. 1 of the drawings. Said strips of the two pivot supports or frames are connected by the short bolts 3 which are passed through suitable apertures arranged in said strips. Said apertures may be arranged adjacent to the ends and at suitable intervals throughout the length of said strips and upon different portions or flanges of the same so that the strips may be used in various ways to produce different shaped structures.

The toy is composed of a plurality of each of the several parts above described so that

any bright boy can readily construct various toy structures. The use of the toy, therefore, develops the inventive and constructive faculties and will at the same time interest and amuse.

Having thus described my invention what I claim is:

1. A toy Ferris wheel comprising two upright supports, a wheel proper having side frames, each composed of apertured metal strips arranged in overlapping relation with their apertures in alinement, bolts passed through the apertures in certain of said strips to unite them, tie rods arranged between the side frames of the wheel and also passed through the apertures in certain of said strips to unite the latter and space the side frames apart, one of the tie rods being centrally arranged in the wheel and mounted in said supports to serve as a pivot for the wheel.

2. A toy Ferris wheel comprising two upright supports, each consisting of converging angular strips united at their upper ends, a connecting strip between their diverging lower ends, another strip extending outwardly from said connecting strip and a channeled bracing strip between the outer end of the last mentioned strip and the converging ends of the angular strips, a wheel proper having side frames, each composed of apertured metal strips arranged in overlapping relation with their apertures in alinement, bolts passed through the apertures in certain of said strips to unite them, tie rods arranged between the side frames of the wheel and also passed through the apertures in certain of said strips to unite the latter and space the side frames apart, one of the tie rods being centrally arranged in the wheel and mounted in said supports to serve as a pivot for the wheel.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

MARCUS T. C. WING.

Witnesses:
J. S. MYERS,
JOHN H. DAILEY.