(No Model.)

3 Sheets—Sheet 1.

H. C. BROCK & J. HUNTER.

REVOLVING SHOW FRAME.

No. 466,767. Patented Jan. 12, 1892.

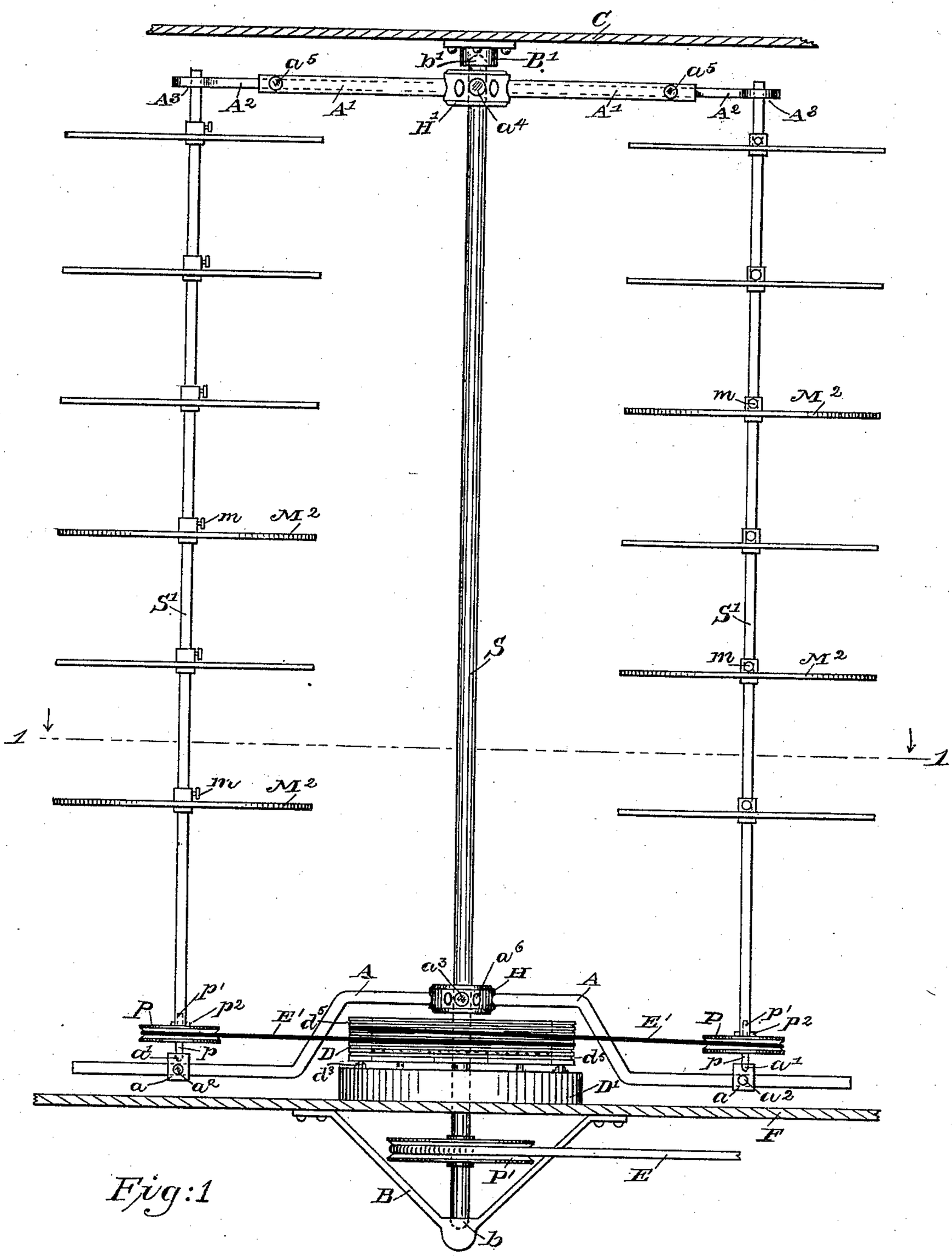

Fig:1

WITNESSES:
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(No Model.)

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H. C. BROCK & J. HUNTER.

REVOLVING SHOW FRAME.

No. 466,767. Patented Jan. 12, 1892.

Fig: 2.

Section 1-1.

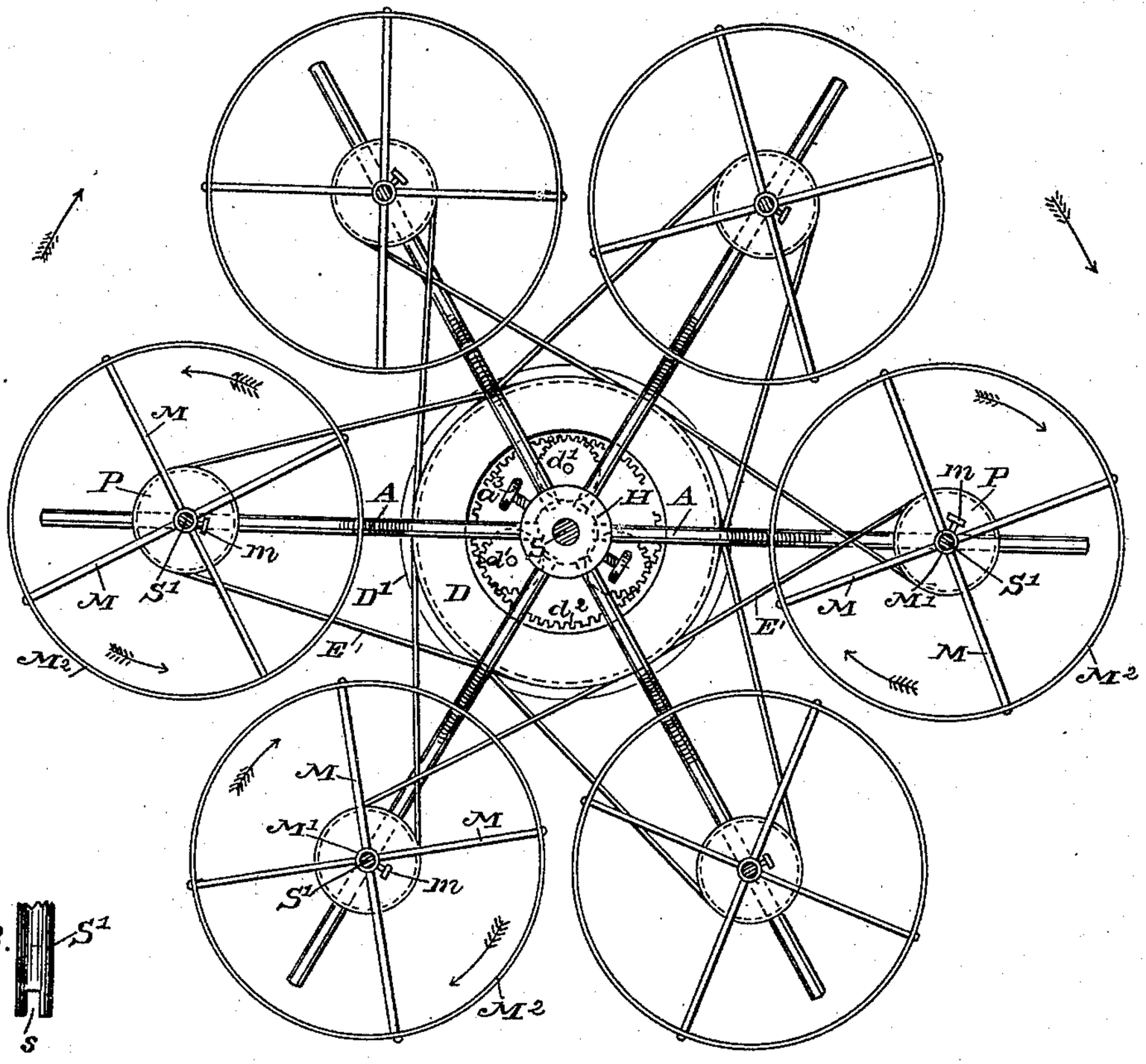
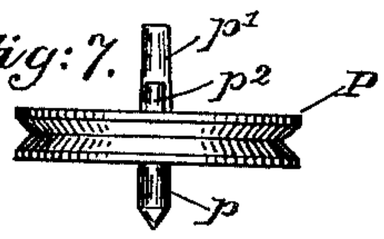


Fig: 8.

Fig: 7.



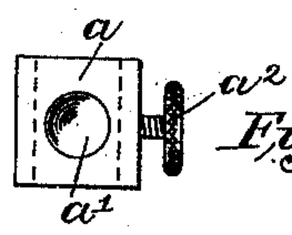


Fig: 3.

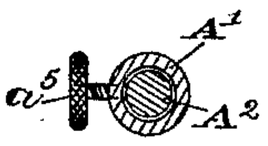


Fig: 6.

Sec. 2-2

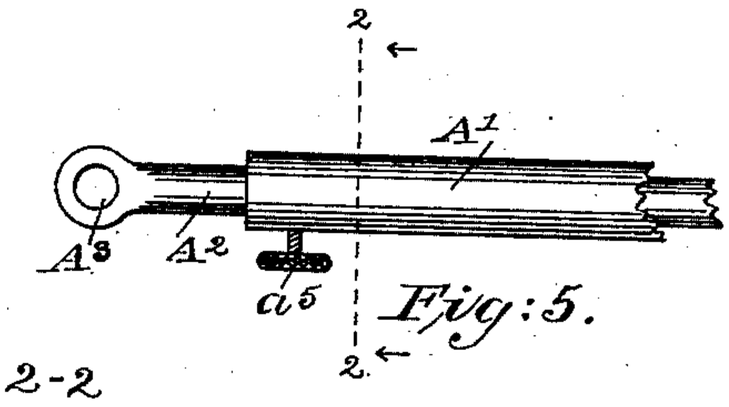


Fig: 5.

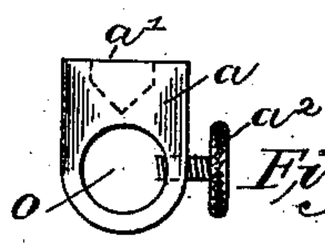


Fig: 4.

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(No Model.) 3 Sheets—Sheet 3.

H. C. BROCK & J. HUNTER.

REVOLVING SHOW FRAME.

No. 466,767. Patented Jan. 12, 1892.

Fig: 9.

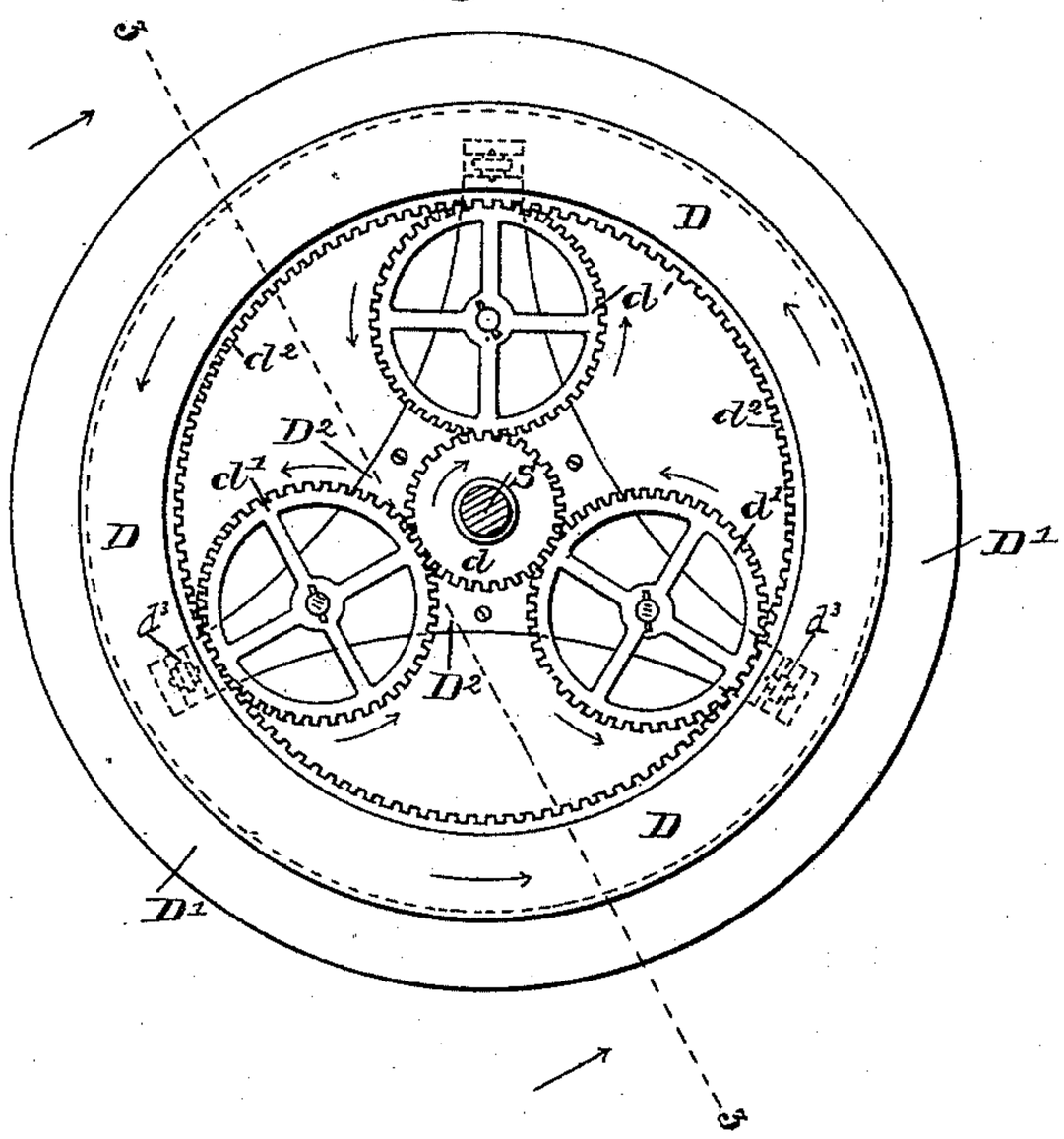
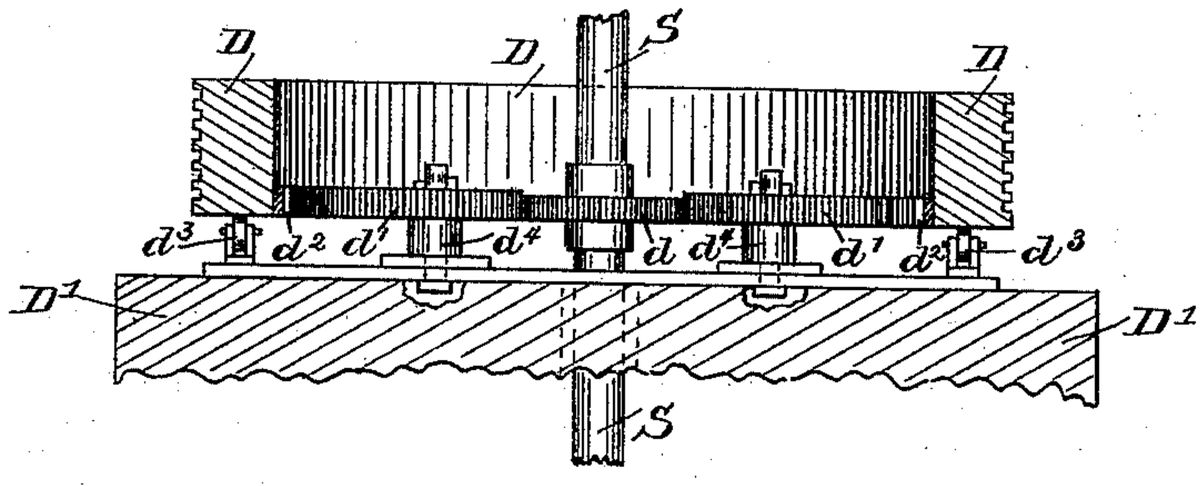


Fig: 10.



Section 3-3.

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UNITED STATES PATENT OFFICE.

HENRY C. BROCK AND JAMES HUNTER, OF ALBANY, NEW YORK; SAID BROCK ASSIGNOR TO SAID HUNTER.

REVOLVING SHOW-FRAME.

SPECIFICATION forming part of Letters Patent No. 466,767, dated January 12, 1892.

Application filed March 10, 1891. Serial No. 384,440. (No model.)

To all whom it may concern:

Be it known that we, HENRY C. BROCK and JAMES HUNTER, both of the city and county of Albany and State of New York, have jointly invented a new and useful Improvement in Revolving Show-Frames, of which the following is a specification.

Our invention relates to devices for displaying wares and merchandise in store-windows and elsewhere; and it consists, as will hereinafter be more fully set forth, of a series of revolving vertical shafts, each one carried on a separate arm radiating from a central revolving vertical shaft, and provided with a series of shelves or rests for the display of goods. The central shaft is actuated by any suitable motive power, and by means of properly constructed gearing operates a revolving drum, which in turn by the use of belting communicates the necessary motive power to each of the series of secondary shafts.

Accompanying this specification and forming a part of it are three plates of drawings, containing ten figures, in each of which similar letters refer to corresponding parts.

Figure 1 is an elevation of our device, showing a central shaft provided with two radiating arms, each bearing a secondary shaft, the latter connected with the revolving drum D by means of belting. Fig. 2 is a sectional view of our invention, constructed with six radiating arms and a corresponding number of secondary shafts, the latter furnished with display-shelves, and is taken at a point indicated by the line 1 1 of Fig. 1. Figs. 3 and 4 are different views of a socket-bearing collar adapted to be fastened to each of the radiating arms. Fig. 5 shows a portion of the upper support of one of the secondary shafts. Fig. 6 is a sectional view taken on the line 2 2 of Fig. 5. Fig. 7 shows a pulley-wheel, with one of which each of the secondary shafts is provided. Fig. 8 shows the lower extremity of a secondary shaft. Fig. 9 is a plan view of the base of our device, and Fig. 10 is a sectional view on line 3 3 of Fig. 9.

F is the floor-line and C the ceiling or top of inclosure in which our device is operated. The central vertical shaft S, stepped in the socket b of the bracket B and fitted with the pulley-wheel P′, passes up through the floor and through a base or foundation D′, and is secured at its upper end in the socket b' of the fixture B′ attached to C.

H is a hub secured to S by the set-screw a^3 and furnished with sockets a^6 for the arms A A, which extend radially from it. These arms may be straight or bent, preferably the latter, and are each provided with an adjustable collar a, secured thereto by the set-screw a^2, and constructed with the socket a'.

S′ is a secondary vertical shaft hollowed at the bottom and furnished at its lower extremity with the slot s.

P is a pulley-wheel provided with the pivot p and tapering shank p', on which is constructed the shoulder p^2. The shank p' fits in the hollowed end of S′, the slot s receiving the shoulder p^2. Thus when S′ and P are so connected and the pivot p is stepped in the socket a' of the collar a, secured to A, a revolution of P will cause a consequent revolution of S′. On the upper portion of S is secured the hub H′ by the set-screw a^4. Attached thereto and projecting horizontally therefrom is a series of supporting-rods A′, equal in number to that of the series of radiating arms A, each supporting-rod being oppositely placed to one of the said arms. These rods are hollow and are furnished with an extensible section A^2, adapted to fit, for the greater part of its length, within A′, thereby providing a longitudinally-adjustable rod, secured at any desired length by the set-screw a^5.

A^2 at its outer end is shaped to form the ring A^3, adapted to secure the upper end of S′. Each secondary shaft S′ is furnished with a series of shelves or rests for the purpose of holding the goods to be displayed, composed of arms M M, secured to a collar M′, adapted to fit around S′ and be secured thereto by the set-screw m and with their outer extremities connected by the band M^2, which is here represented as circular, but to which any desired shape could be given, of course.

The base of our device is best shown in Figs. 9 and 10.

Our show-frame can be placed directly on the floor; but we prefer to make use of a foundation or platform D′. Upon D′ we secure the base-plate D^2, to which are secured the cog-

wheels d' d', resting on the tubular supports d^4. Surrounding S, and in the same plane as E d', is the cog-wheel d, adapted to mesh with each of d'. Surrounding these cog-wheels is a drum D, furnished on its outer periphery with the parallel grooves d^5 d^5, corresponding in number with the number of radial arms A, and on its inner periphery with a gearing d^2, adapted to mesh with the cog-wheels d' d' at points opposite the intermeshing points of d and d' d'. Small rollers d^3 are adjusted between the lower face of D and the upper face of D^2 to facilitate the revolutions of D.

E' E' are belts, one for each pulley-wheel P, connecting the drum D with each of said pulley-wheels, each belt running in one of the grooves d^5 of D.

Motive power of any desired nature is applied to the central shaft S by means of the belt E, which is geared to the wheel P'. The revolution of S, and, in consequence, that of d, imparts, through the cog-wheels d' d', a revolution in the opposite direction to D. The secondary shaft S', with the wheel P, as hereinbefore described, attached thereto, the pivot p, stepped in the socket a', and the upper end of S', secured by A^3, which, through the extension of A^2, is brought directly over a', is connected with the drum D by means of the belt E', which passes around P and around D in one of the grooves d^5. Thus as S revolves, causing all the radial arms A with their respective secondary shafts S' to rotate in one direction, the revolution of D in the opposite direction imparted to each of S' by means of E', causes an independent revolution of S' in a direction contrary to that of the revolution of S, thereby not only bringing each secondary shaft with its series of shelves successively into view at the same point, but also presenting each portion of each shelf to view in regular course.

By crossing one or more of the belts of the secondary shafts the latter may be caused to revolve in varying directions.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of a central vertical shaft provided with suitable actuating mechanism fitted with a cog-wheel d and with one or more radial arms and supports, each of said arms fitted with a socket-bearing collar and carrying a secondary vertical shaft stepped in said socket and furnished with one or more shelves, and a pulley whose upper end is secured in one of the said supports, and a base-plate carrying the cog-wheels d', with a revolving drum grooved on its outer periphery, furnished with the gearing d^2 on its inner periphery, and connected by the belts E' with each pulley of each secondary shaft, as hereinbefore described and set forth.

2. The combination of the central shaft S, arm A, oppositely-placed extensible support A', the shaft S', furnished with one or more shelves and stepped in the socket a' and furnished with the pulley P, said pulley geared to the revolving drum D, with the wheels d and d', and the gearing d^2, as herein described and set forth.

Witness our hands this 14th day of February, 1891.

HENRY C. BROCK.
JAMES HUNTER.

In presence of—
GEORGE NUSSBAUM,
HORACE L. HICKS.