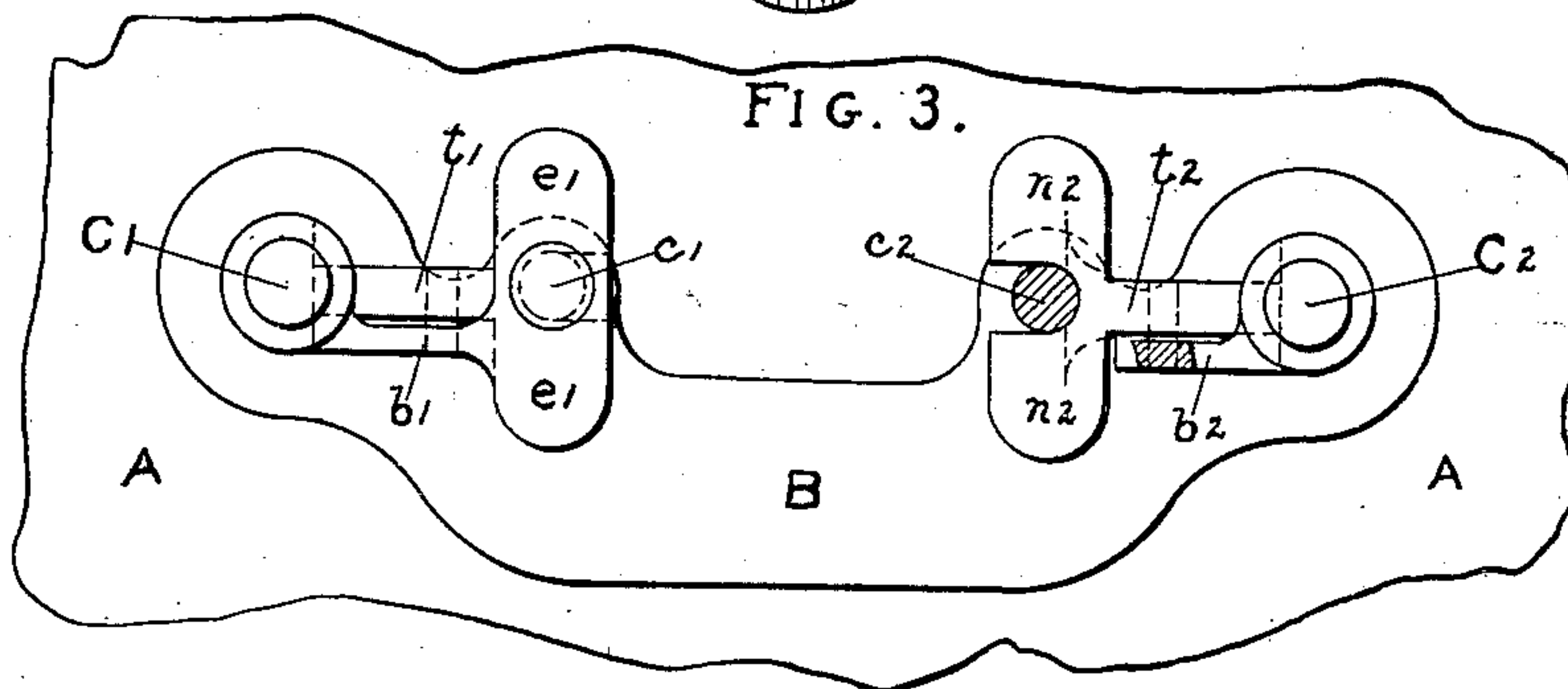
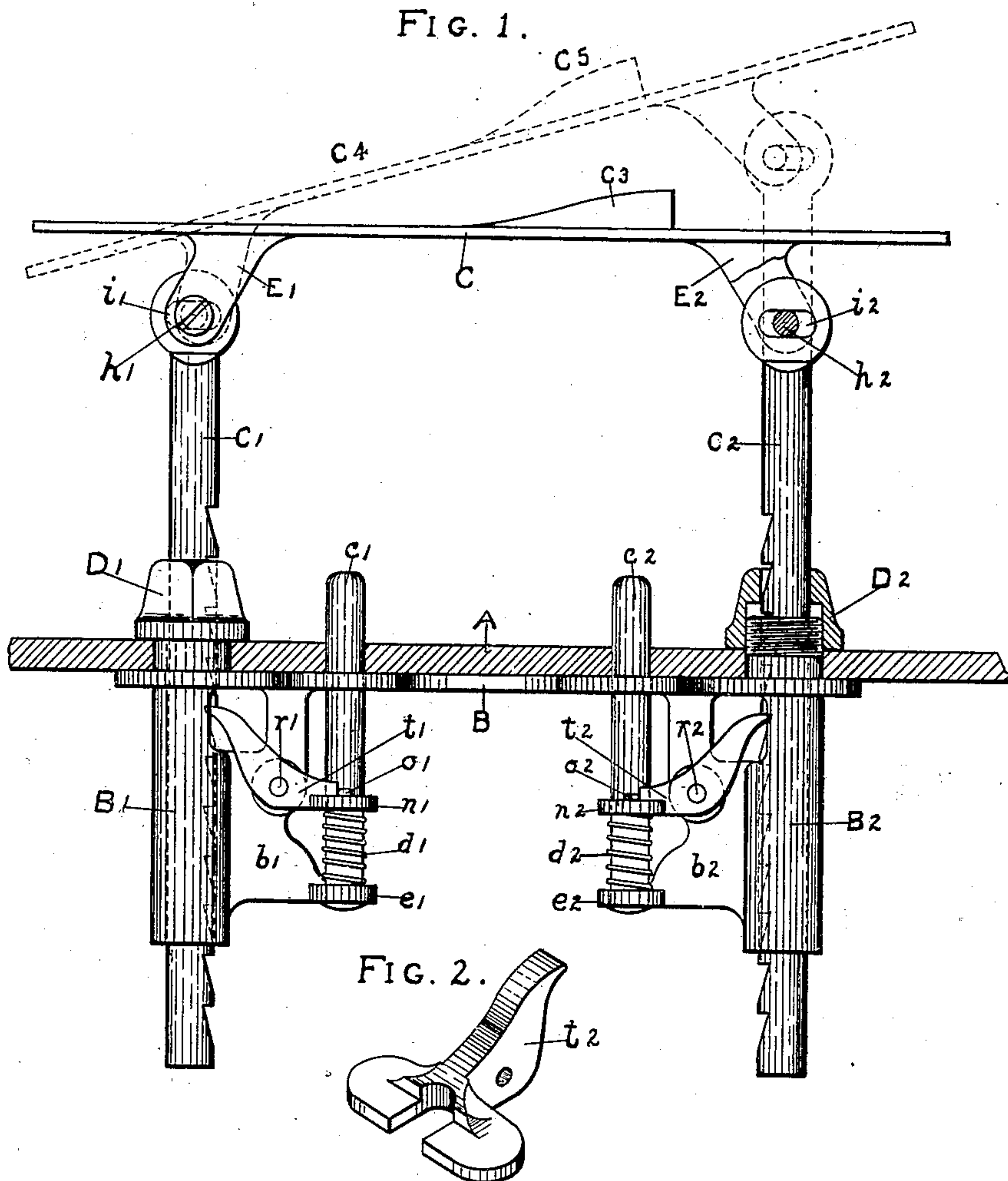


No. 862,943.

PATENTED AUG. 13, 1907.

P. F. SWART.
ADJUSTABLE SUPPORT.
APPLICATION FILED APR. 30, 1906.



WITNESSES:

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PHILIP F. SWART, OF BROCKPORT, NEW YORK.

ADJUSTABLE SUPPORT.

No. 862,943.

Specification of Letters Patent.

Patented Aug. 13, 1907.

Application filed April 30, 1906. Serial No. 314,472.

To all whom it may concern:

Be it known that I, PHILIP F. SWART, a citizen of the United States, residing at Brockport, in the county of Monroe and State of New York, have invented a new and Improved Adjustable Support, of which the following is a specification.

My present invention relates to adjustable means for supporting articles from and above a suitable shelf, table or counter.

10 The object of my invention is to provide a support which shall be adjustable as to height, and it may also be adjustable so as to support an object thereon, within a moderate range, at any desired angle relative to the shelf, counter or table.

15 Another object of my invention is to provide such an adjustable support with means whereby the height of the support, as well as the angle relative to the shelf, table or counter, may be adjusted either from the under side or from the upper side of such shelf or table, as desired.

20 My invention comprises two standards vertically adjustable in suitable guides connected to such shelf, table or counter and connected by a cross piece or plate, with which they articulate for the purpose of adjusting the angle of the supported cross plate relatively to the shelf or table, each of such standards being adjustable to any height. The height also of the cross piece may be adjusted within a moderate limit.

25 In carrying out my present invention, I provide 30 two vertical standards with ratchets thereon arranged to be engaged by suitable spring pawls carried and supported by the guiding mechanism for such standards and operating to hold the same in any desired position of vertical adjustment. For operating these pawls, to 35 release them from the ratchets, I provide operating rods extending above the surface of the table or shelf and carried by the casting, comprising the guiding mechanisms and their connections, and these pawls I also provide with operating handles beneath the shelf or table 40 in order that such pawls may be operated entirely from the under side of the table when desired.

The accompanying drawings illustrate that embodiment of my invention adapted to supporting small articles at different angles relatively to, and at different 45 distances above a shelf, such as may receive any suitable support in a show case or similar place where goods or articles may be exhibited.

50 Figure 1 shows in elevation an adjustable shelf in accordance with my invention and with parts broken away, as will be explained, to more clearly illustrate the construction and operation of some of the features thereof. Fig. 2 shows in perspective one of the locking latches, while Fig. 3 shows a view from the under side of the shelf and with parts broken away, as will be explained.

55 A shelf A, of any suitable material and adapted to be

supported in the desired location by a bracket or in any similar way not shown, has secured on the under side thereof the plate B. This plate B has, preferably formed integrally therewith, two cylindrical guides 60 B^1 and B^2 , which extend upwardly through suitable openings therefor in the shelf A and are threaded at their upper ends to receive the nuts D^1 and D^2 respectively, by means of which the plate B with the standard carrying guides B^1 and B^2 is firmly secured to such 65 shelf A. Cylindrical supporting rods C^1 and C^2 , adapted to slide freely through guides B^1 and B^2 respectively, are arranged to be engaged and held in any desired vertical adjustment by means of the, preferably spring actuated, pawls t^1 and t^2 , pivoted on the pins r^1 and 70 r^2 respectively, secured in the webs b^1 and b^2 , projecting inwardly from the guides B^1 and B^2 and connecting also at their upper ends with the plate B. These brackets or webs b^1 and b^2 have respectively, at their lower ends, lateral extensions e^1 and e^2 nearly or quite 75 similar in conformation with the extensions n^1 and n^2 respectively on the latches t^1 and t^2 , in order to provide means for engagement by the thumb and finger of the operator, when it is desired to operate the latches t^1 and t^2 from the under side of the shelf A. These latches 80 t^1 and t^2 are arranged to engage suitable ratchet teeth provided therefor on the inner and opposing faces of the supporting rods C^1 and C^2 respectively.

For operating the latches t^1 and t^2 from the upper side of the shelf A, when desired, there are provided 85 two suitable push bolts c^1 and c^2 , extending through suitable openings therefor in the shelf A and guided by suitable holes in the plate B and also suitable holes in the lateral extensions e^1 and e^2 respectively, formed on the webs b^1 and b^2 . Springs d^1 and d^2 are provided 90 also for holding the latches t^1 and t^2 respectively in place, such springs d^1 and d^2 encircling and held in place by the push bolts c^1 and c^2 , which in turn are provided with suitable pins o^1 and o^2 passing there- 95 through and supporting the push bolts c^1 and c^2 respectively from the upper side of the latches t^1 and t^2 . These push bolts c^1 and c^2 are enlarged slightly at their lower ends to prevent their being forced upwardly through the lateral extensions e^1 and e^2 on the webs b^1 and b^2 . 100

The right hand nut D^2 is shown in vertical section in Fig. 1, and in Fig. 3 the lower portion of the web b^2 with the projection e^2 thereon is broken away to show the latch t^2 with the projection n^2 thereon.

The standards C^1 and C^2 are widened laterally at 105 their upper ends and carry short horizontal slots i^1 and i^2 to receive the screw bolts h^1 and h^2 respectively, passing through and threaded into the farther one of each pair of supporting ears E^1 and E^2 formed on the under side of the plate C. The slots i^1 and i^2 are provided 110 in order that the supporting plate C may be adjusted to any desired angle, as indicated. Part of that

one of the right hand pair of ears E^2 next to the observer is seen as broken away in Fig. 1 to show the slot t^2 in the flattened upper end of the supporting rod C^2 .

In attaching my support to any suitable shelf, holes
5 are bored therethrough to receive the threaded upper ends of the guides B^1 and B^2 and also the push rods c^1 and c^2 . The nuts D^1 and D^2 are screwed down firmly, clamping the shelf A between such nuts and the plate B. The supporting and guiding rods C^1 and C^2 carry-
10 ing the supporting plate C are next inserted within the guides B^1 and B^2 and adjusted to the desired height, the pawls t^1 and t^2 operating to hold the guiding and supporting rods C^1 and C^2 in any desired position of vertical adjustment.

15 In Fig. 1 I have shown a projection or stop c^3 adapting the supporting plate C to use in exhibiting shoes, slippers or like articles, the stop c^3 arranged to engage under the instep of the shoe and against the forward edge of the heel, to prevent the shoe from sliding down-
20 wardly and to the left when the plate C is adjustable for displaying the shoes, preferably to a position similar to that indicated in dotted lines at c^4 in Fig. 1. It will of course be understood that the supporting cross plate C may receive any desired conformation adapt-
25 ing the same to any of the special uses for which my device may be employed.

What I claim is:—

In combination with two guideways adapted to be se-
cured to a suitable shelf or table, supporting bars adapted
to slide in such guideways and articulating at their upper 30
ends with a suitable cross plate by connections permitting
vertical adjustment of each of such bars independently of
the other, each of such bars provided with ratchet teeth,
each of such guideways carrying a pawl adapted to engage 35
the teeth on the corresponding supporting bar, such pawls
supported below such shelf and adapted to be engaged by
the hand of the operator from below the shelf, for each
of such pawls a coiled spring having one end supported by
a fixed member carried by the corresponding guideway
and having its other end engaging such pawl and adapted 40
to hold such pawl in engagement with the corresponding
ratchet and a push rod extending through a guiding open-
ing therefor in such fixed member, extending through and
encircled by such coiled spring, extending through a suit-
able opening therefor in the free end of such pawl and 45
carrying a projection adapted to engage such pawl on the
upper side and to be supported thereby and also extending
upwardly through such shelf and through a suitable guid-
ing member carried by such guideway and located on the
under side of such shelf, whereby such pawl may be oper- 50
ated from the upper side of such shelf by means of such
push rod.

PHILIP F. SWART.

Witnesses:

GEO. E. BENEDICT,
FRED. GRALEY.