A. J. HORTON.

RHEOSTAT.

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1,158,052.

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Fig. 1.

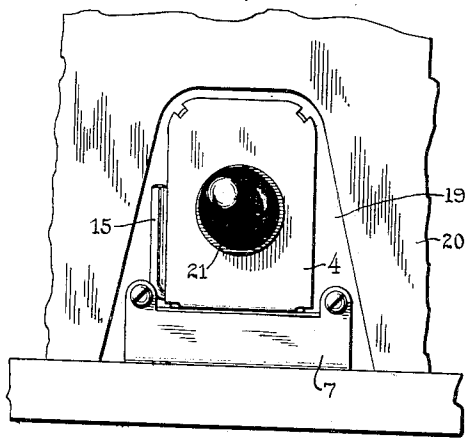


Fig. 5.

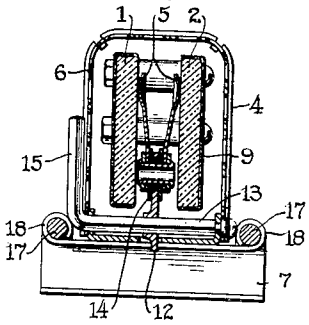


Fig. 2.

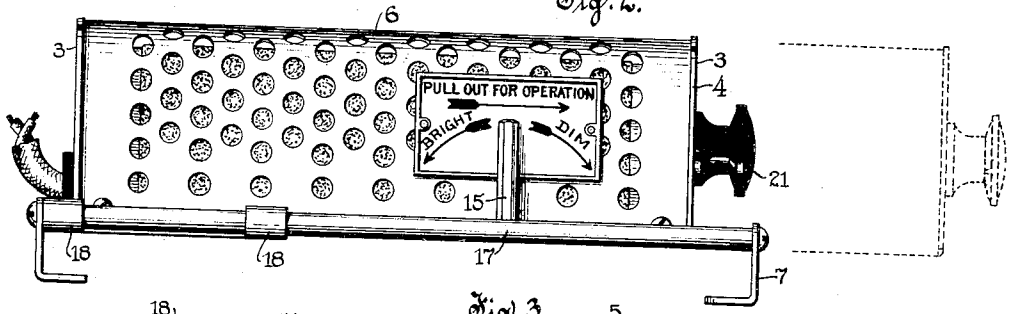


Fig. 3.

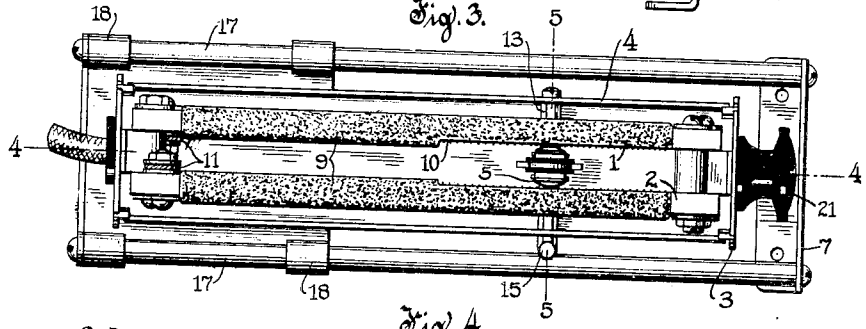
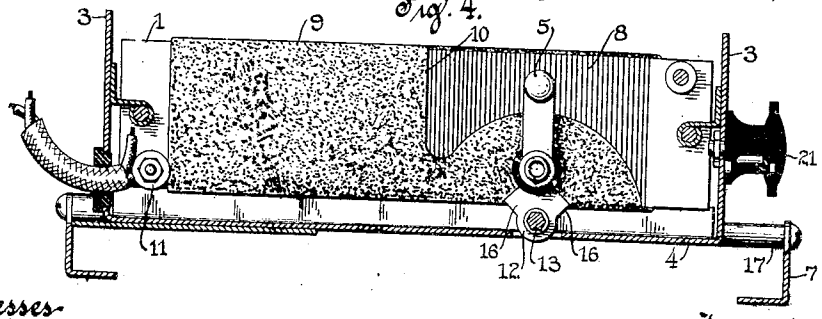


Fig. 4.



Witnesses-

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RHEOSTAT.

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To all whom it may concern:

Be it known that I, ALBERT J. HORTON, a citizen of the United States, residing at White Plains, in the county of Westchester and State of New York, have invented new and useful Improvements in Rheostats, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

This invention relates to rheostats.

One of the objects of the invention is to provide a simple, compact and efficient rheostat for various uses, such for example, as lamp regulation in connection with pathéscopes.

A further object is to provide a rheostat for concealed mounting with supporting means permitting ready adjustment thereof to an accessible position for regulation, inspection, and so forth.

Other objects and advantages of the invention will appear hereinafter in connection with a description of the accompanying drawing which illustrates a typical embodiment of the invention.

In the drawing, Figure 1 is a front view of the rheostat and mounting therefor. Fig. 2 is an elevational view of the rheostat. Fig. 3 is a plan view thereof with the cover removed. Fig. 4 is a sectional view on the line 4—4 of Fig. 3, and Fig. 5 is a sectional view on the line 5—5 of Fig. 3.

The rheostat illustrated is particularly designed for a pathéscope and is preferably mounted within a recess of the pathéscope frame, as shown in Fig. 1. Structurally, the rheostat includes a plurality of sections of resistance preferably mounted upon two spaced parallel supporting bases 1 and 2 fixed between the upright ends 3 of a stamped metal frame 4. Certain of the resistance sections have exposed coils on adjacent sides of their supporting bases, and a controlling member 5 is provided therebetween to engage and move over the exposed resistance coils for regulation thereof. A foraminous metal cover 6 is secured to the frame 4 and incloses all electrical parts of the rheostat. In practice, also, said frame is slidably mounted on a standard 7 so that the rheostat is capable of travel thereon for a purpose hereinafter set forth.

The resistance elements comprise wires 8 of suitable gage wound spirally on the supports 1 and 2 which latter are of insulating material such, for example, as asbestos board. Each support carries a fixed resistance and a variable resistance, both of which for convenience are formed of a continuous resistor and both of which are preferably embedded within a layer of insulating cement 9. As mentioned, however, certain portions of the variable resistances are left uncovered by the cementitious material, as indicated at 10, for engagement by the controlling member 5. It will thus be observed that the rheostat includes a definite amount of fixed resistance and a variable resistance as is ordinarily desired in the control of motion picture machines. As illustrated, the variable resistances on the two supporting bases are connected by the controlling member 5 which constitutes a contact bridge, and the fixed resistances are provided at their outer ends with the terminals 11 for line connections. Thus, as shown, the resistances are connected in series relation, although it will be understood that the same might be connected in parallel if desired.

The controlling member 5 comprises two spring arms having cupped contact extremities in resilient engagement with the exposed resistance coils, at 10. Said spring arms are mounted upon a member 12 fixed to a spindle 13 revolubly journaled in the frame 4 and extending at right angles below the supports 1 and 2. The contact arms 5 are electrically connected together but are insulated from the member 12 by suitable means, such as an insulating bushing 14. The spindle 13 is also provided with a right angled extension 15 which serves as a handle for operating the controlling member. Pivotal movement of said controlling member in both directions is limited by offset lugs 16 on the member 12 which abut the base of the frame 4.

The supporting standard 7 of the rheostat is provided with two parallel rods 17 extending longitudinally thereof and the frame 4 is slidably mounted on said rods, said frame being provided adjacent its rear ends with four offset ears 18 through opposite pairs of which the rods 17 are threaded. The rheostat is thus afforded a rigid support on said rods but at the same time is freely slidable from one end to the other thereof. Thus, where the rheostat is mounted as shown in Fig. 1, it normally

rests within a recess 19 of a support 20, but may be readily withdrawn and rendered accessible for inspection and manipulation of its controlling element. It may be noted in this connection that the concealed mounting of the rheostat as described has distinct advantages such as, the normal concealment of its controlling member whereby accidental or unauthorized operation thereof is safeguarded.

To facilitate withdrawal of the rheostat from its inclosure, the same is preferably provided at its front end with a suitable hand grip 21. Further advantages of the structure described may also be mentioned, namely, that the rheostat may be withdrawn from its inclosure during operation and thus exposed for better ventilation, and the heat generated thereby may be kept out of proximity to the working parts of the pathéscope so that drying of the machine lubricant is avoided.

What I claim as new and desire to secure by Letters Patent is:—

1. In a rheostat, an elongated frame, an insulating base mounted thereon, a resistance on said base, a cover for said base secured to said frame, and a controlling member pivoted to said frame and movable over said resistance, said member having an operating part without said cover and adjacent one end of said frame, and said resistance having terminal connections adjacent the other end of said frame.

2. In a rheostat, a metallic supporting frame, a pair of insulating bases mounted thereon in spaced parallel relation, resistances on said bases, a controlling member pivoted to said frame and movable over a limited portion of said resistances, and a metallic cover for said bases secured to said frame.

3. In a rheostat, an elongated insulating base, a continuous resistance element coiled thereon, an insulating element adhering to said base and embedding a fixed portion of said resistance and exposing another portion thereof, and a controlling member movable over said exposed portion.

4. In a rheostat, an insulating support, a resistor wound thereon to provide a fixed resistance and a regulating resistance, and an insulating element entirely covering said fixed resistance and covering all but a limited area of said regulating resistance.

5. In combination, a rheostat, an inclosing member to support the same, and a standard fixed within said inclosing member and slidably supporting said rheostat to render the latter adjustable in position.

6. In combination, a rheostat, a standard therefor slidably supporting the same, and an inclosing and supporting member having a recess to receive said rheostat and standard, said rheostat having a normally concealed controlling member operable upon sliding withdrawal of the same from said recess.

7. In combination, an elongated rheostat having a fixed resistance at one end and a regulating resistance and controlling member at the other end, and a standard arranged longitudinally of said rheostat and slidably supporting the same at its fixed resistance end whereby said rheostat is movable to clear its controlling member for operation.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

ALBERT J. HORTON.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."