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DEVICE FOR SUPPORTING PLASTIC CASTS

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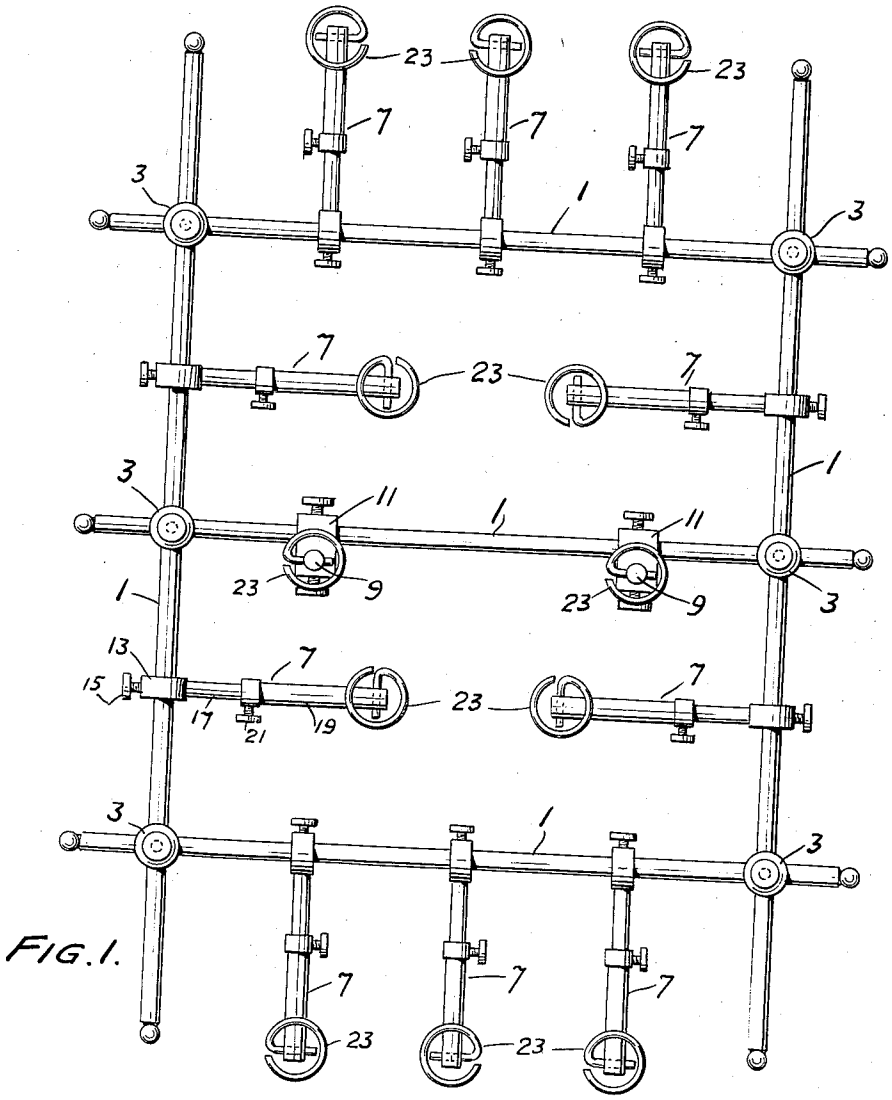

FIG. 1.

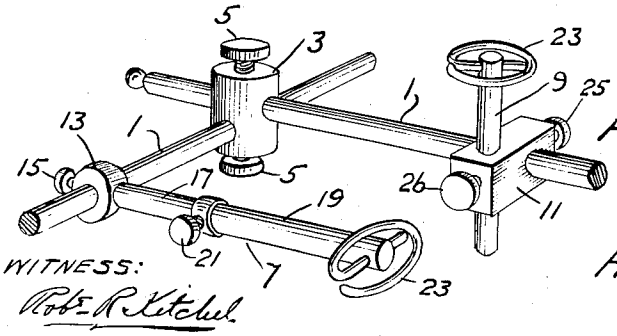

FIG. 2.

WITNESS:
Robt. R. Kitchel

INVENTOR
Howard S. Eckels
BY
Bussur & Harding
ATTORNEYS.

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DEVICE FOR SUPPORTING PLASTIC CASTS

Howard S. Eckels, Philadelphia, Pa.

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6 Claims. (Cl. 18—5)

This invention relates to a device for holding and supporting plastic casts.

In taking casts for the reproduction of portions of the human anatomy, as, for example, the face, head, etc., it is often desirable to form the impression or take the negative cast in a material which is plastic rather than rigid, since this is more agreeable to the person sitting for the purpose. The removal and support of such plastic casts after their completion without injury to the cast or destruction of detail constitutes, however, a very difficult problem not met with in the handling of rigid casts.

It is accordingly the purpose of this invention to provide holding and supporting means for such plastic casts adapted to permit their removal without the slightest injury or destruction of detail and to support them during the operation of preparing a rigid positive cast from the plastic negative cast. Specifically this purpose is effected by the provision of an adjustable, rigid frame substantially the size of the cast equipped with a plurality of rigid fingers capable of being positioned so that their extremities conform to the contour of the cast, and by which the cast is supported and held.

The invention may best be described by reference to a specific embodiment thereof, adapted to support and hold plastic casts of the face or head, shown in the accompanying drawing, in which

Fig. 1 is a plan view of a device in accordance with this invention, and

Fig. 2 is a detail perspective view of the same device showing the method of connecting the parts.

A plurality of rods 1 are adjustably connected by corner posts 3 to form a rigid framework. Any motion of the rods 1 relative to each other after the framework has been adjusted to the desired size is prevented by the setscrews 5. A plurality of fingers 7 are mounted on the rods 1, which pass through the collars 13 of the fingers, and may be adjusted at any position along the rods and at any angle to the plane of the framework and retained in such position by the setscrews 15. Each finger 7 comprises two telescoping members 17 and 19 respectively, which may be locked in position by the setscrew 21, and a rotatably mounted ring member 23 at its extremity. When in use it is desired to position the extremity of a finger closer to a rod 1 than the telescopement of the finger 7 will permit, fingers of the type indicated at 9 are used. The fingers 9 comprise a single rod carrying a ring member 23 at one extremity, and are connected to a rod 1 of the frame by the connectors 11. Setscrews 25 and 26, respectively, permit the fingers 9 to be adjusted and fastened in any desired position.

In operation when, for example, a plastic cast of the face is to be taken, the rods 1 are adjusted so as to form a rectangular framework somewhat larger than the size of the cast to be made, and are then rigidly connected by tightening the setscrews 5. The plastic material is then applied to the face in quantity to give the desired thickness of cast. The fingers 7 and 9 of the cast holder are then adjusted by the operator so that, the framework of rods 1 being at the desired distance from the face, the extremities of the fingers just touch the surface of the mask with the rotatable ring members 23 laying parallel to the surface of the mask at each point of contact. The fingers are then rigidly clamped in these positions by operation of the setscrews 15, 21, 25, and 26, and the ring members 23 are covered with more of the plastic material forming the cast thus imbedding them in the mask itself.

The plastic cast is now rigidly supported at a plurality of points and accordingly may be easily removed from the face without danger of injuring the impression obtained. Further handling of the plastic mask is also simplified since the supporting framework affords a means of easily handling it. Thus, while the plastic negative mask is still supported as described, a rigid positive mask in hard wax or the like may be cast from it.

It will be understood that the details hereinabove set forth are illustrative only and in no way limit the invention as broadly described.

What I claim and desire to protect by Letters Patent is

1. A device for supporting plastic casts and the like comprising in combination a rigid frame, a plurality of rigid fingers adjustably attached thereto, each of said fingers being adjustable in length, and means mounted on the outer end of each finger capable of partial rotation at right angles to the axis of the finger and adapted to be firmly retained upon the imbedment in a plastic cast, whereby the said fingers may support a plastic cast so as to prevent any substantial deformation thereof.

2. A device for supporting plastic casts and the like comprising in combination a plurality of rods, means for releasably connecting said rods to form a rigid frame, a plurality of fingers attached

to said rods and capable of movement axially along said rods and of rotation about said rods, means for retaining each of said fingers in fixed position with reference to said rods, means for varying the length of each of said fingers, and means mounted on the outer end of each finger capable of partial rotation at right angles to the axis of the finger and adapted to be firmly retained upon imbedment in a plastic cast, whereby the said fingers may support a plastic cast so as to prevent any substantial deformation thereof.

3. A device for supporting plastic casts and the like, comprising in combination a plurality of rod-like members adjustably connected together to form a rigid frame adjustable in size, a plurality of fingers attached to said rod-like members and capable of movement along said members and of rotation about said members, means for retaining each of said fingers in fixed position with reference to said frame, means for varying the length of each of said fingers, and means positioned at the outer end of each finger adapted to retain and impede removal of a plastic cast from said fingers when the outer ends thereof are imbedded in such plastic cast, whereby the said fingers may support a plastic cast so as to prevent any substantial deformation thereof.

4. A device for supporting plastic casts and the like, comprising in combination a plurality of rod-like members adjustably connected together to form a rigid frame adjustable in size, a plurality of fingers attached to said rod-like members and capable of movement along said members and of rotation about said members, means for retaining each of said fingers in fixed position with reference to said frame, means for varying the length of each of said fingers, and means mounted on the outer end of each finger capable of partial rotation at right angles to the axis of the finger and adapted to be firmly retained upon imbedment in a plastic cast, whereby the said fingers may support a plastic cast so as to prevent any substantial deformation thereof.

5. A device for supporting plastic casts and the like, comprising in combination a rigid frame, a plurality of rigid fingers adjustably attached thereto, each of said fingers being adjustable in length, and a plurality of elements each positioned at the outer end of each said finger, said elements being adapted to retain and impede removal of a plastic cast from said fingers when the outer ends thereof are imbedded in such plastic cast, whereby the said fingers may support a plastic cast so as to prevent any substantial deformation thereof.

6. A device for supporting plastic casts and the like, comprising in combination a rigid frame, a plurality of fingers attached thereto, each of said fingers being capable of adjustment with respect to said frame in such manner that the outer ends thereof may be positioned so as to rest on an irregular, curved surface, and a plurality of elements each positioned at the outer end of each said finger, said elements being adapted to retain and impede removal of a plastic cast from said fingers when the outer ends thereof are imbedded in such plastic cast, whereby the said fingers may support a plastic cast so as to prevent any substantial deformation thereof.

HOWARD S. ECKELS.