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H. RATEAU

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HELMET

Filed April 17, 1931

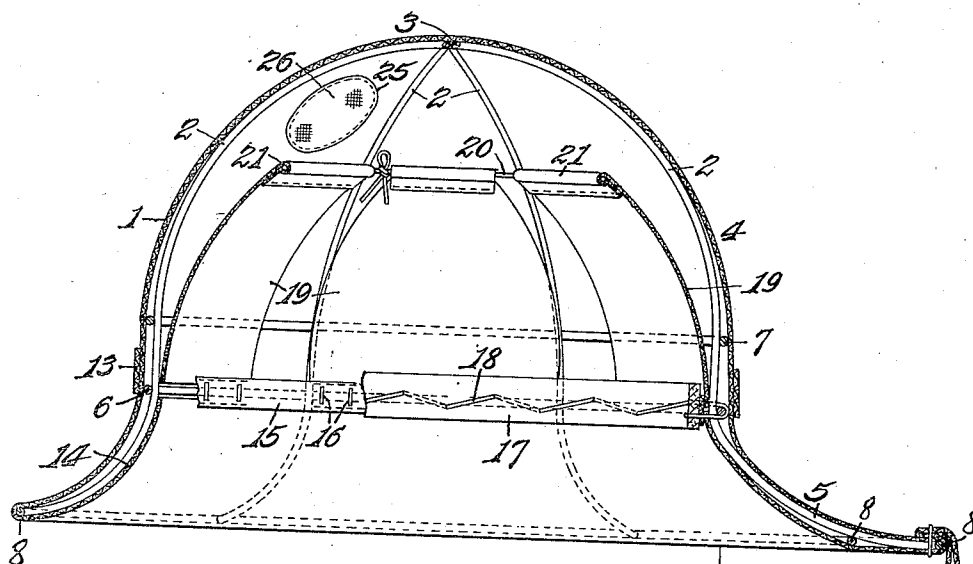


FIG 1

FIG 2

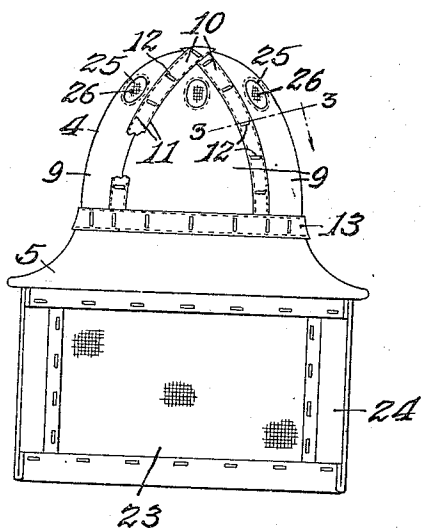
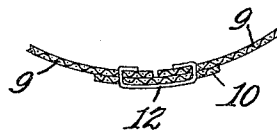


FIG 3



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HELMET

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This invention relates broadly to head coverings, and it has for its primary object to provide a protective head covering of helmet type designed for the use of furnace attendants and others whose duties require that they approach closely within the zone of intense heat emanating in furnaces, kilns, lehrs and the like.

A further object is to provide a simple and practical form of head covering or helmet comprising a frame and a covering of a suitable heat resisting and insulating material, such as asbestos fabric, by which the head and face of the wearer may be shielded to the extent that close approach to the heat source is permitted without injury.

In describing the invention in detail, reference is herein had to the accompanying drawings, in which—

Figure 1 is a central vertical section of a helmet constructed in accordance with my invention;

Figure 2 is a rear side elevation of the invention, shown on a reduced scale; and—

Figure 3 is an enlarged section on line 3—3, Fig. 2.

Referring to said drawings, 1 designates a fabric covering mounted upon a rigid, or semi-rigid, skeleton frame of a more or less conventional helmet or hat shape, which, as herein shown, comprises a plurality of metal ribs 2, preferably of wire, which have their upper ends occupying radially disposed meeting relation and rigidly connected or joined, as by electric welding at their meeting point 3. Said ribs incline or curve downwardly and outwardly to form a crown portion 4 of approximately semi-spherical form and an encircling brim portion 5, the latter located at the lower extremity of said crown portion and being directed downwardly and outwardly with respect to said crown portion.

Encircling said frame at and adjacent to the lower end of said crown portion and suitably attached, as by welding, to said ribs 2 at their points of crossing the latter, is one or more metal rings, as 6 and 7, preferably of wire, by means of which said ribs 2 are se-

cured intermediate their ends in rigid relation.

Also rigidly attached to the lower ends of the various ribs 2 and forming a part of the frame is an embracing brim wire or wires 8 of circular, or ring-like, form. The fabric covering employed in the crown portion 14, which preferably consists of woven asbestos cloth, is composed of a plurality of substantially triangular segments 9 which have their meeting edges joined by overlying tape-like strips 10 stitched thereto, as shown at 11, and also by means of metal staples 12. A fabric band 13 of similar material is in like manner attached to the fabric covering 1 at the lower portion of the crown portion 4, or at the junction of said crown portion with the brim portion 5.

The outer covering of the brim is passed around the brim wire 8 and is thence doubled back in underlying relation to the frame wires, forming an under covering 14 for the brim, and is attached to the lower edge of a suitably mounted fabric bandeau 15. Said bandeau, as herein shown, is carried on the inner side of the ring 6 which is suitably located at the lower part of the crown portion of the frame, being attached to said ring by means of metal staples 16.

Mounted against the internal circumferential face of said bandeau is a strip 17 of heavy material, preferably felt, which is designed to embrace the head of the wearer of the helmet. Said strip 17 constitutes a cushion adapted to shield the thereby embraced portion of the wearer's head from too close or uncomfortable engagement with the frame wires as well as the bandeau-attaching staples 16. As herein shown, said cushion is attached to the ring 6 by means of stitching wire 18.

Attached to the upper edge of the bandeau are the lower ends of a plurality of separate flaps 19 which incline upwardly and inwardly and which more or less closely approach each other at their upper ends and which have a draw-string 20 passed through hems 21 provided therein, whereby relative adjustment thereof may be effected. Said flaps, formed of pliable fabric, complement each

other in the formation of an inner crown, or head-rest, which seats upon the top of the head of the wearer. The flaps composing said head-rest may be adjusted to the size of the head of the wearer. Obviously, said head rest serves to maintain the metal frame of the helmet removed from close contact with the head of the wearer, and also in large measure to protect the wearer against shocks and injury which would otherwise result from falling bricks and the like striking upon the crown of the helmet.

As is apparent, the formation of the head-rest of a plurality of flaps spaced apart, as shown, provides for free circulation about the head of the wearer of air admitted through openings 25 provided in the segments 9 of the fabric covering. Said openings preferably have mounted therein fine-mesh wire netting 26, as shown.

Attached to and depending from the front edge of the brim is an apron-like shield consisting of a fine-mesh wire netting 23 mounted in a suitable fabric frame 24. Said shield serves to protect the face of the wearer against the intense heat of a furnace and, at the same time, permits vision and air circulation therethrough. A sheet of isinglass or other transparent heat resisting material may be substituted for the wire netting if desired.

What is claimed is—

1. A helmet of the character described comprising a semi-rigid skeleton frame including a plurality of radially disposed wire ribs having their upper ends occupying joined relation, said ribs being shaped and relatively disposed to form a unitary crown portion and brim portion, said brim portion being angularly disposed relative to said crown portion, ring-like members rigidly connecting said ribs, one at the outer edge of the brim and another at the junction of the crown and brim portions, a bandeau fixed to the last mentioned of said members, a heat-resisting fabric covering for said frame, the covering for said brim including a brim underlying portion attached to said bandeau, and a head-cushioning fabric forming an internal facing for said bandeau.

2. A helmet of the character described comprising a semi-rigid skeleton frame including a plurality of radially disposed wire ribs having their upper ends occupying joined relation, said ribs being shaped and relatively disposed to form a unitary crown portion and brim portion, said brim portion being angularly disposed relative to said crown portion, ring-like members rigidly connecting said ribs, one at the outer edge of the brim and another at the junction of the crown and brim portions, a bandeau fixed to the last mentioned of said members, a heat-resisting fabric covering for said frame, the covering for said brim being looped about the ring-

like member of the brim and having its terminal edge attached to said bandeau, and a head-cushioning fabric attached to and forming a facing for said bandeau.

In testimony whereof, I affix my signature.
HENRI RATEAU.

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