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2,350,164

CLOCK CASE

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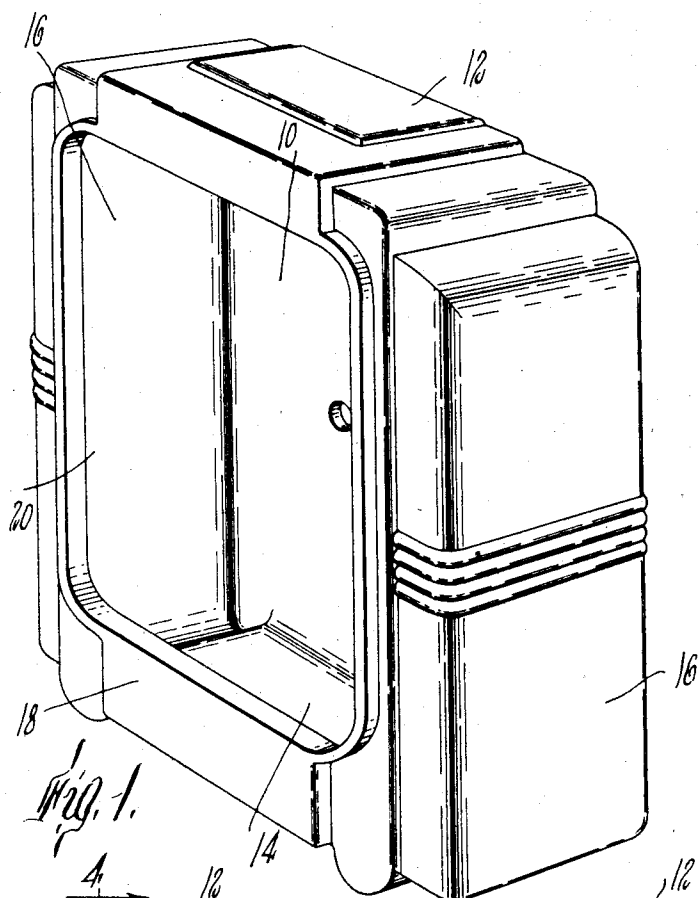


Fig. 1.

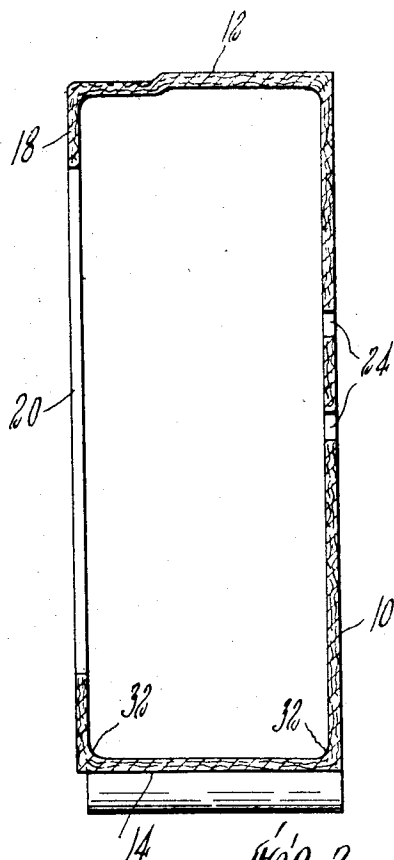


Fig. 2.

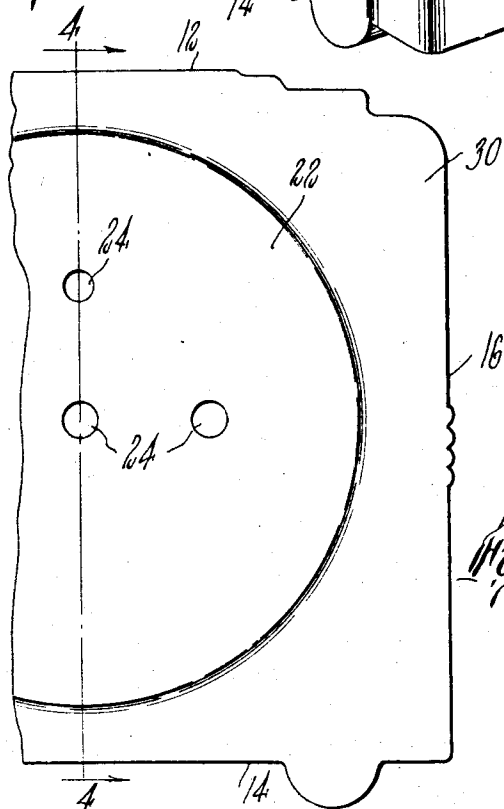


Fig. 3.

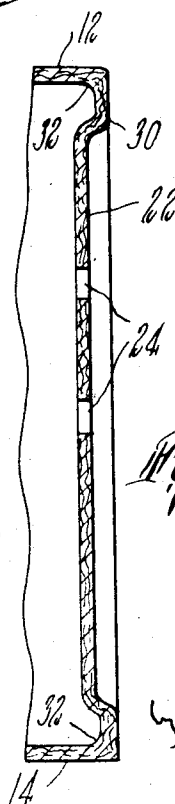


Fig. 4.

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UNITED STATES PATENT OFFICE

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CLOCKCASE

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7 Claims. (Cl. 58—55)

This invention relates to a clock case to contain spring-driven clock movement. The case is more especially intended for movements such as are usually employed in inexpensive alarm clocks and are characterized by comparatively loud ticking which is often found objectionable in the stillness of the night.

According to the present invention, an inexpensive, one-piece, sound-deadening case is provided, the case being molded in a single piece by the deposition of water-borne paper pulp fibers on the inside of a suitable hollow screen mold. The molding may be done with or without suitable sizings and/or fillers in the furnish. The molded case is dried and impregnated or coated with a suitable binder, preferably a substance which can be treated, as by heat and pressure, to give a smooth, hard surface finish. Other surface finishing materials such as varnishes or lacquers may be employed in addition to or instead of the binder. The resulting clock case is light in weight, tough and strong, with marked sound-deadening properties, and can readily be given a highly ornamental finish.

For a more complete understanding of the invention, reference may be had to the following description thereof, and to the drawing of which

Figure 1 is a perspective view of a clock case embodying the invention.

Figure 2 is a vertical section of the same.

Figure 3 is a fragmentary rear elevation of a slightly modified form of the same.

Figure 4 is a fragmentary section on the line 4—4 of Figure 3.

The drawing illustrates in Figures 1 and 2 a one-piece clock case having a rear wall 10, a top 12, a bottom 14, side walls 16 and a front wall 18 in which is a large aperture of nearly rectangular shape (but which may be of circular or other outline, if desired) for the face of a clock mechanism to be mounted in the case. The clock case illustrated in Figures 3 and 4 may be of the same general shape as that shown in Figure 1 but is provided with a circular inwardly offset portion 22 in the rear wall, so that, when the clock mechanism is mounted in the case, the usual fingerpieces which are mounted on the ends of winding and setting shafts projecting through the apertures 24 in the rear wall of the case will be within the plane of the marginal portions 30 of the rear wall.

The case can be given any desired shape and ornamentation within the practical limits of the molding means and procedure employed. The case is molded by introducing a measured

amount of an aqueous suspension of paper pulp fibers into a suitably shaped mold, the mold being foraminous to permit the escape of water as the fibers are deposited against the inner surface of the mold. Any desired sizings, fillers or the like may be included in the furnish. The fibers are deposited within the mold in such a manner as to form fillets 32 along the lines of juncture between the various walls which meet each other at angles as illustrated in Figures 2 and 4. This tends to reinforce the structure at those points where it is needed the most.

After the case has been molded by the depositing of wet paper pulp fibers, it is removed from the mold, dried, and treated with a stiffening agent, preferably one which can be given a smooth, hard surface finish. If the resultant fibrous shell does not already contain sufficient impregnating material received from the furnish, such material may be supplied in any suitable manner as by dipping the shell in an impregnating substance which is in liquid form. The impregnating material is preferably a solution of a synthetic resin compound which is capable of being polymerized by heat and pressure so as to form a stiff, hard, tough body which is capable of having a smooth or polished surface. Instead of a synthetic resin, other equivalent materials can be used such as waxes, rosin, casein derivatives or the like.

The impregnated shell is then subjected to a hot pressing operation which sets the impregnating material and also gives the shell a smooth finish and an accurate size and shape, uniformity of size and shape being desirable since the shells thus made are intended to receive clock mechanisms with a correct fit. I have discovered that clock cases made in this manner are remarkably efficient in sound-deadening, their effectiveness in this respect being greater than that of an untreated molded fiber case.

If desired, a final finishing coat may be applied to the exterior of the case, as, for example, a suitable varnish or lacquer, so-called "wrinkle" lacquer of any desired color being suitable for this purpose.

It is evident that various modifications and changes may be made in the embodiments of the invention herein illustrated and described without departing from the spirit or scope thereof as defined in the following claims.

I claim:

1. A sound-deadening one-piece molded clock case of water-laid paper pulp fibers impregnated with a plastic compound, said case having a rear

wall, top, bottom, side walls, and a front wall with a large aperture for the clock face.

2. A sound-deadening one-piece molded paper pulp fiber clock case exteriorly surfaced with a pressed synthetic resin, said case having a rear wall, top, bottom, side walls, and a front wall with a large aperture for a clock face.

3. A sound-deadening one-piece molded paper pulp fiber clock case impregnated with a synthetic resin and exteriorly coated with a finishing material.

4. A sound-deadening one-piece molded paper pulp fiber clock case treated with a stiffening agent and exteriorly coated with wrinkle lacquer.

5. A one-piece molded clock case of water-laid paper pulp fibers exteriorly surfaced with a pressed synthetic resin and finished with a coating of lacquer.

6. A sound-deadening clock case consisting essentially of paper pulp fibers water-laid in molded shape and in a single piece with rear, top, bottom, and side walls in continuous union with each other, the top, bottom and side walls extending from the rear wall sufficiently far to enclose a clock movement.

7. A sound-deadening clock case having rear, front and lateral walls composed essentially of interfelted paper pulp fibers, united together as an integral one-piece structure, the front wall having an opening of smaller dimensions than the area of the wall adapted to expose the face of a clock contained within the case, said walls being free from folds and puckers.

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