

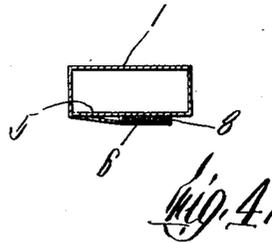
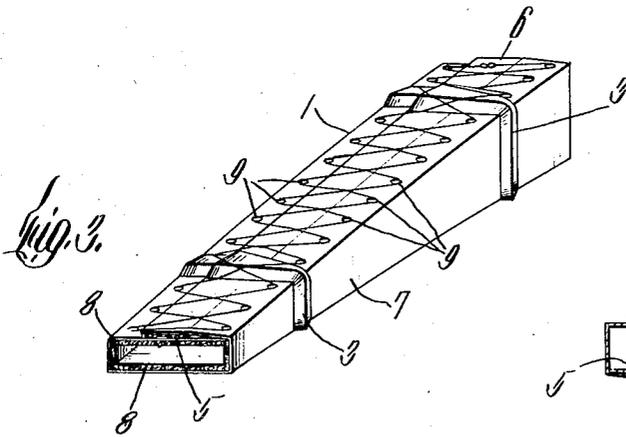
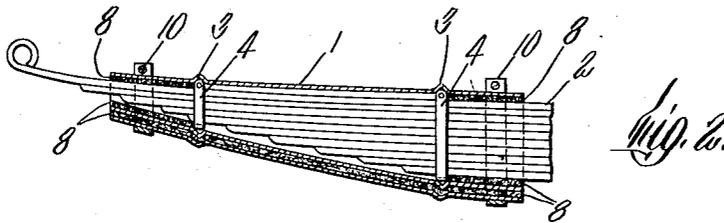
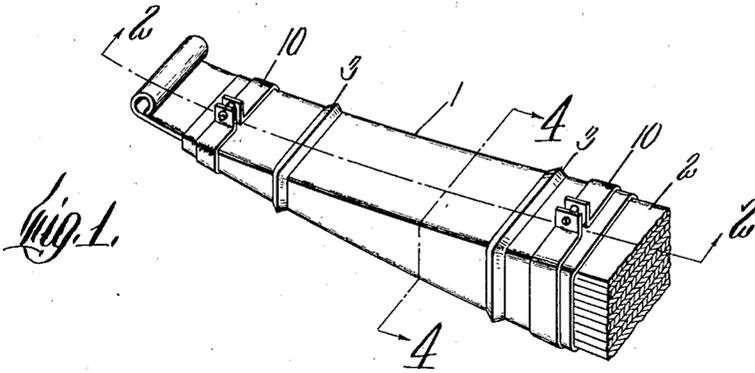
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A. L. CLAPP

1,745,527

AUTOMOBILE SPRING COVER

Filed June 25, 1927



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UNITED STATES PATENT OFFICE

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AUTOMOBILE SPRING COVER

Application filed June 25, 1927. Serial No. 201,405.

This invention relates to automobile spring covers such as are sometimes employed for preventing dirt from lodging on the springs and thus serving to keep springs in a well-greased condition once they are greased. Heretofore, such covers have been made from flexible or upper leather and being quite expensive have been used to a limited extent only.

The present invention has for its object to provide a cover which may be manufactured at low cost but at the same time withstands the effects of use in satisfactory fashion and is free from such objections as squeaking or other noises. Briefly stated, the cover of the present invention is made of greaseproof and waterproof fiberboard of a semi-rigid character, accurately moulded to the desired shape.

In manufacturing the covers of the present invention, cellulose and/or leather fiber, together with inorganic fillers such as asbestos, either in the form of fiber or dust, lime, magnesium oxide, or like material capable of reacting with sodium silicate solution to produce setting or hardening compounds, are thoroughly intermixed in a beater engine and then run off into a board on a paper machine. The board is dried and then saturated with sodium silicate solution, which reacts with the inorganic filler therein to produce setting compounds which after they have set impart greaseproof and waterproof properties to the board. While such setting is taking place, the board acquires a temper or consistency permitting it to be moulded, so that while it is in this condition it may be accurately moulded into the shape of the spring to which it is to be applied, including any irregularities on the spring. The cover may then be finished for usual lacing assembly with a spring.

A specific procedure for the manufacture of such covers may be as follows:

Sixty parts of cellulose fiber, preferably a strong fiber such as kraft pulp, 40 parts of asbestos fiber, and 10 to 15 parts of lime are charged into a beater engine together with sufficient water to ensure circulation, and the charge beaten until a thorough mixture has been effected. The mixture is then di-

luted to papermaking consistency and run off on a papermaking machine into a board which is dried. The dry board is saturated with a sodium silicate solution, preferably of about 20° Baumé, and allowed to stand so as to permit reaction of the solution with the inorganic fillers to produce setting compounds. While setting is taking place, the board acquires a temper permitting it to be moulded without undergoing disintegration, and when it has acquired this condition it is moulded into covers corresponding to the springs to which they are to be applied.

On the accompanying drawings,

Figure 1 illustrates one finished form which the cover of the present invention may take assembled with a spring.

Figure 2 represents a section on the line 2-2 of Figure 1.

Figure 3 shows the cover in inverted position and detached from the spring.

Figure 4 represents a section on the line 4-4 of Figure 1.

As shown in the drawings, the cover designated as a whole at 1 is moulded to fit over a half-section 2 of a semi-elliptical spring, and consists of an open-ended box gradually decreasing in cross-sectional area from the center of the spring to its end. The cover may be moulded to fit nicely over any irregularities on the spring, that shown being provided with peripheral bulges 3 near its ends to fit over clamps 4 which serve to hold together the leaves of the spring. To permit assembly with the spring, the under side of the cover consists of two flaps 5 and 6 extending from opposite sides 7, these flaps being separable so that the cover may be pulled down over the spring. To ensure good covering of the under side of the spring, one of the flaps 5 is preferably of sufficient width to extend from one side 7 to the other side.

To prevent grease from exuding at the ends of the cover and from between the flaps, the cover is preferably lined as usual with compressible packing material such as felt 8 near its ends and along the marginal portion of one of the flaps 6. Preferably a row of hooks or eyelets 9 is provided on each of the flaps to permit usual lacing assembly with the

spring, so that the cover may be drawn tightly against the spring, particularly where the packing material is placed. Further to ensure the retention of the cover in place
5 in case the lacing breaks, peripheral clips 10 may be employed near both ends of the cover to hold it in place.

The cover may, of course, be painted or otherwise surface-finished to correspond to
10 the color scheme of the car. It may also be provided at one or more places with grease cups, such as employed in alemite lubrication, to permit grease to be applied to the spring without necessitating its disassembly.
15 While of sufficient rigidity to retain substantially its initially moulded shape, nevertheless it is of sufficient flexibility and resiliency to be sprung open for assembly and disassembly without cracking or breaking.

20 Having thus described an embodiment of this invention, it is evident that change and modification might be made therein without departing from the spirit or scope of invention as set forth in the appended
25 claims.

I do not herein claim per se the material of which the cover is made or its method of manufacture, as this is disclosed and claimed in my patent application, Serial No. 94,329,
30 filed March 12, 1926.

What I claim is:

1. A moulded automobile spring cover comprising interfelted fiber permeated with the reaction product of sodium silicate and
35 an inorganic filling material.

2. A moulded automobile spring cover comprising interfelted cellulosic fiber permeated with the reaction product of sodium silicate and lime.

40 3. A moulded automobile spring cover comprising interfelted cellulosic fiber permeated with the reaction product of sodium silicate, lime, and asbestos.

45 In testimony whereof I have affixed my signature.

ALBERT L. CLAPP.

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