

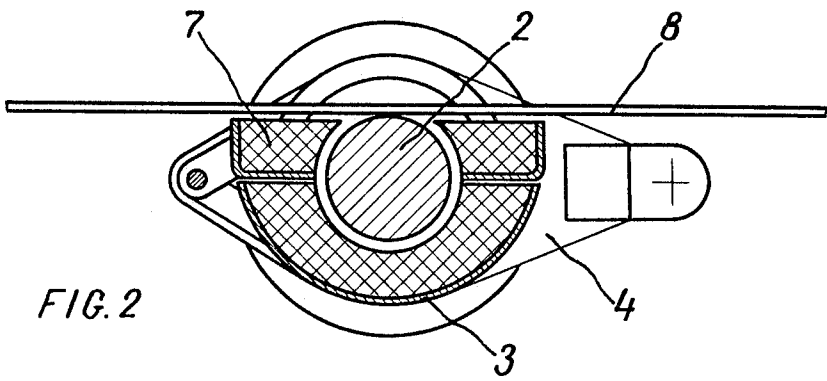
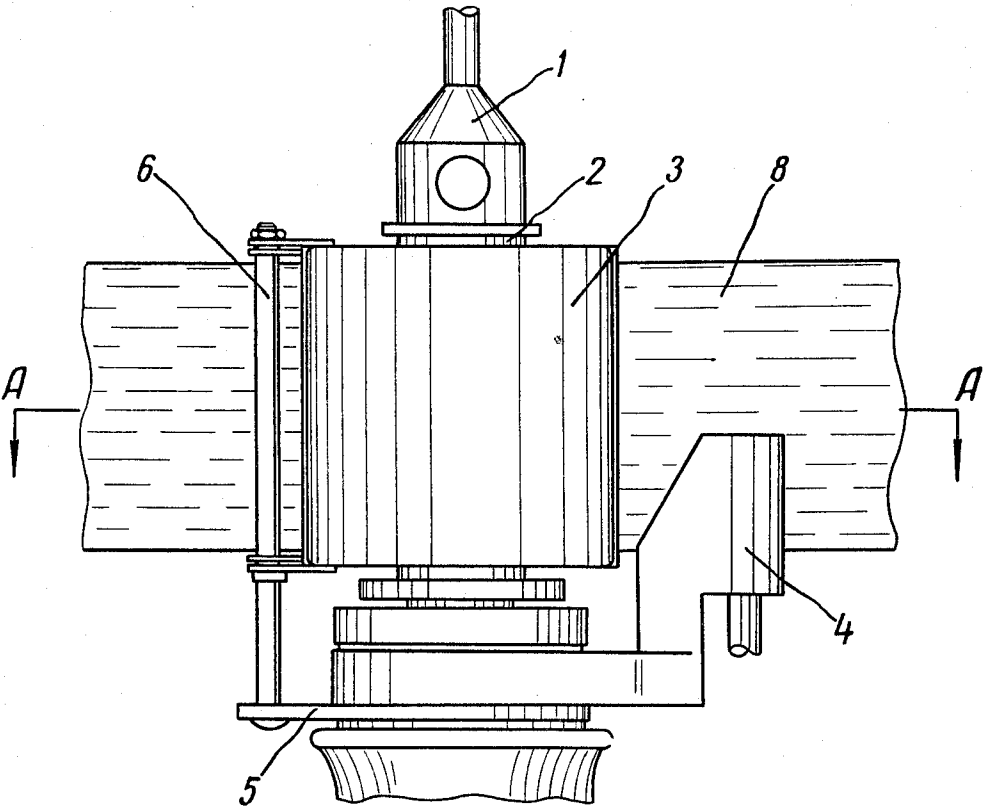
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3,393,765

NOISE-MUFFLE FOR SPINNER AND TWISTER SPINDLES

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NOISE-MUFFLE FOR SPINNER AND TWISTER SPINDLES

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2 Claims. (Cl. 181—33)

ABSTRACT OF THE DISCLOSURE

A noise muffle constituted by a box of two hinged parts which can be mounted to envelope the wharve of a spindle and permit passage of a drive belt, the box having sound absorbent material secured therein to extend into proximity with the wharve and the belt.

The present invention relates to spinning frame spindles and more particularly to noise-muffles for spindles of spinning frames and other similar machines.

The noise produced by spinning and twisting frames is a source of disturbance resulting in adverse working conditions and low working efficiency.

Attempts have been made to reduce the noise produced by spinning frames by the placing of protective screens enclosing the spindles and other units.

However, these screens did not find wide application as they do not allow close observance and free access to the spindles thus reducing labor efficiency and making the maintenance of the frames more complicated. Now it has proved possible to obviate the aforementioned drawbacks by using a noise-muffle designed in the shape of a split box partially or fully enveloping the spindle wharve and filled with sound-absorbing material such as polyurethane foam.

An object of the present invention is to eliminate the noise produced by spinning frame spindles.

Another important object of the present invention is to ensure high labor efficiency.

In accordance with the above and other objects, the invention contemplates a noise-muffle for spindles of a new design and it should be understood that when realizing the invention, modifications and deviations can be made without departing from the scope and spirit of the invention.

For a better understanding a single exemplary embodi-

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ment of the invention is described with reference to the accompanying drawing, in which:

FIG. 1 shows the noise-muffle in elevation view; and

FIG. 2 is a section along line A—A in FIG. 1.

A spindle 1 is provided with a wharve 2; the noise-muffle consists of a split box 3 partially or fully enveloping the wharve 2, the split box being mounted on a bracket 4 by means of a support 5 and an axle 6; a sound-absorbing material 7, such as polyurethane foam (FIG. 2), is placed inside the box 3. This material is arranged so that but a small gap is left between the material and a driving belt 8 as well as between the material and the wharve 2.

The noise-muffle can be drawn aside from the driving belt together with the spindle, and in case it becomes necessary to pull out a spindle blade, as for instance when priming oil into a bearing sleeve, the body of the split box 3 is opened by turning around the axle 6.

The noise produced by the rotating wharve penetrates through the mass of the polyurethane foam, reaches the inside wall of the box 3 and, being reflected, is muffled within the polyurethane foam.

What is claimed is:

1. A noise muffle for a spinning frame spindle having a wharve, said muffle comprising a box enveloping the wharve of the spindle, said box including two hinged parts so that the box can be opened and closed, and means for mounting the box on a support, said box having an opening through which a belt can pass to drive the spindle, and a sound absorbent material in the box and secured thereto, said sound absorbent material extending into proximity with the wharve to define a small uniform gap therewith, said sound absorbent material also extending into proximity of the path of the belt to define a small uniform gap with said belt whereby substantially the entire space within the box is filled when enclosed around the wharve.

2. A muffle as claimed in claim 1 wherein said sound absorbent material is polyurethane foam.

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