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(54) Roller shutter lath

(57) A roller shutter lath which is provided with articulation means 3,4 along both longitudinal edges and flat front and rear surfaces between the articulation means. The front surface of the lath is provided with at least one, but preferably two parallel, longitudinal ribs 7 projecting from the front surface. The lath may be cold-formed by passing a strip of mild steel through a rolling mill. The front surface of the lath may be coated with a thin film of plastics.

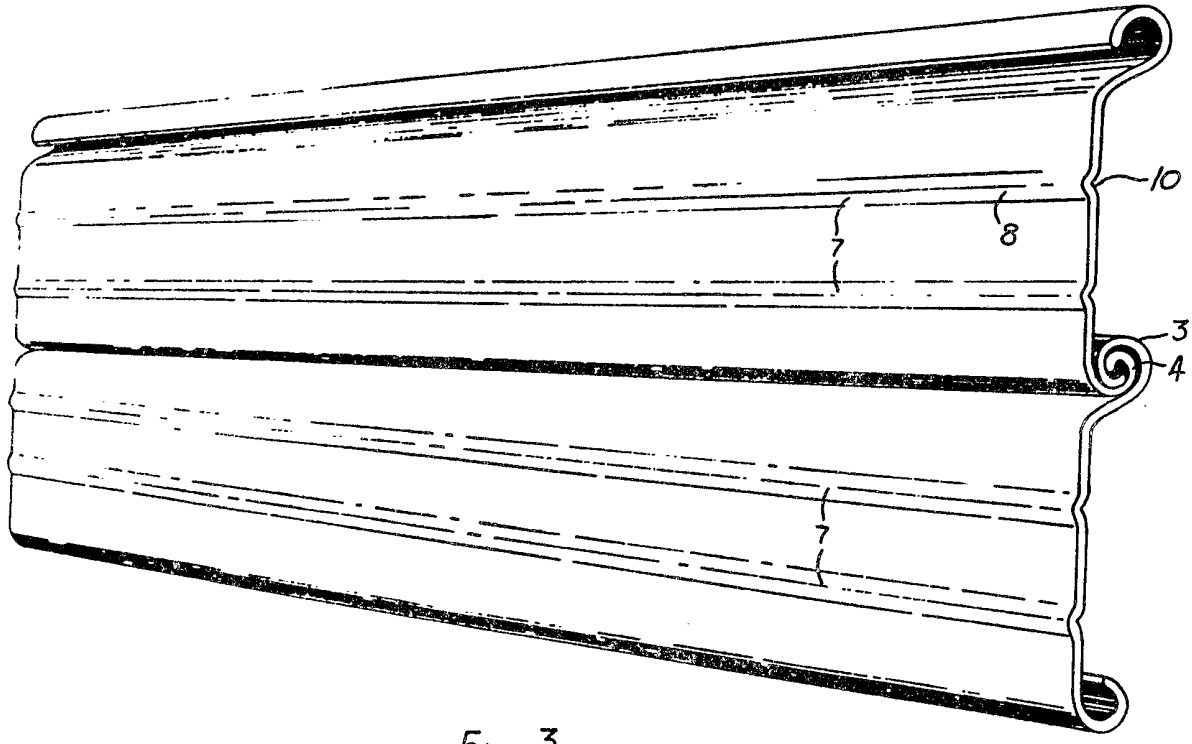

Fig 3

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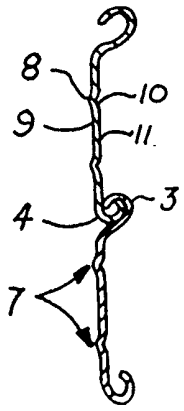

Fig 2

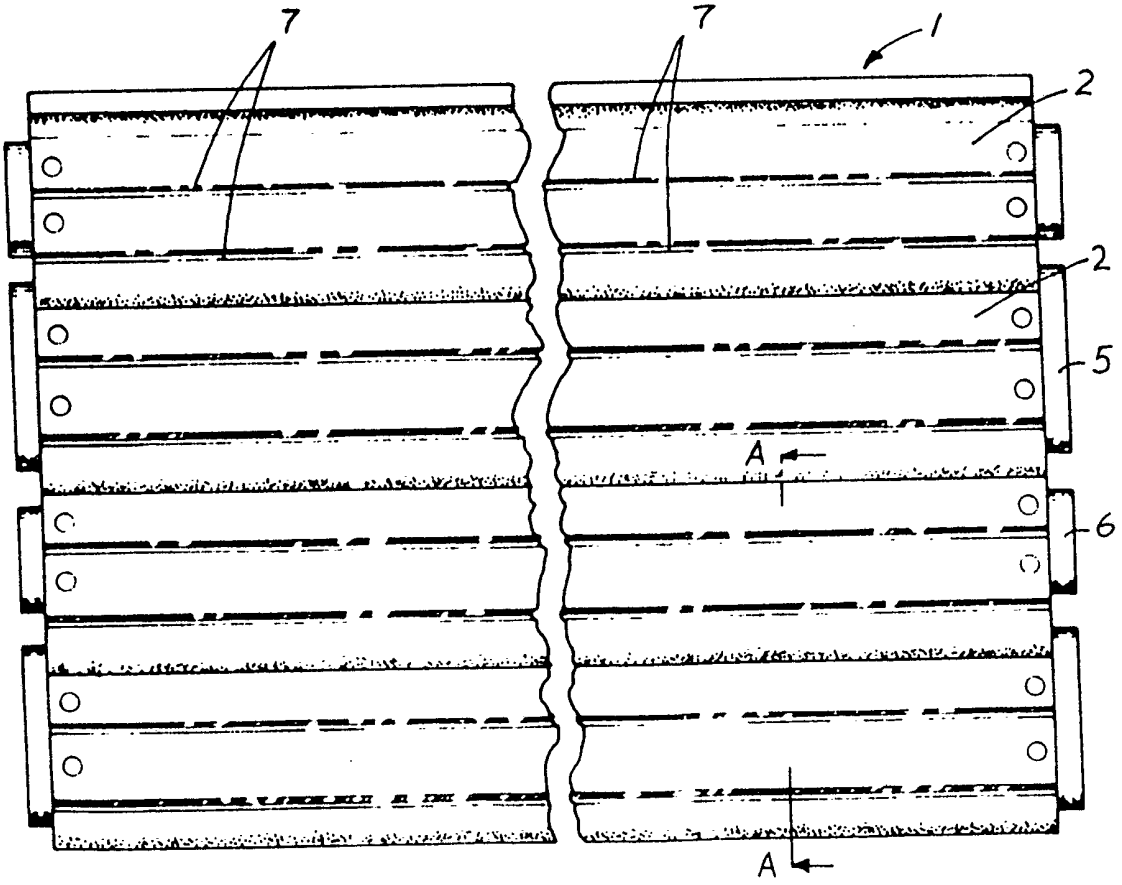

Fig 1

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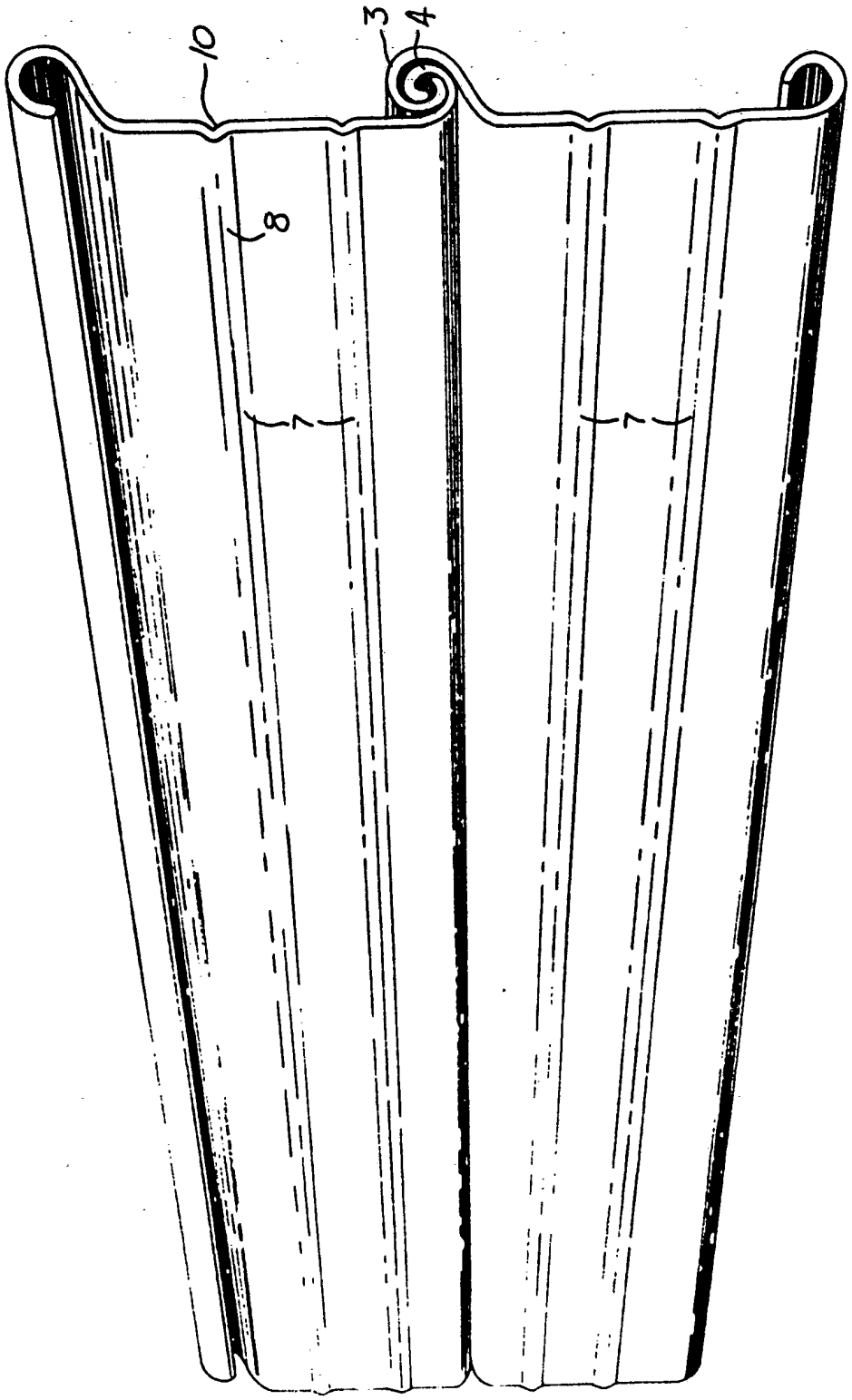

Fig 3

SPECIFICATION

A roller shutter lath and a method for its manufacture.

This invention relates to roller shutters and is particularly concerned with roller shutters of the type comprising a plurality of rigid laths articulated along their longitudinal edges.

According to the invention there is provided a lath for a roller shutter, having articulation means along both longitudinal edges thereof, and substantially flat front and rear surfaces between said articulation means wherein at least one longitudinal rib is formed in a surface of the lath and extends substantially parallel to said longitudinal edges. Preferably, the crest of the or each rib projects outwardly from the front surface of the lath.

Preferably, the lath has two parallel longitudinal ribs of equal dimensions which are spaced apart from each other. The crest of each rib normally projects outwardly from the front surface of the lath by approximately 1 millimetre. Preferably, the spacing between the ribs is approximately equal.

Preferably, the laths are made from a suitable metal such as mild steel or aluminium.

The invention also provides a method of manufacturing a lath for a roller shutter from a flat metal strip of mild steel, aluminium, or the like, wherein the strip is first passed through a rolling mill such that longitudinal ribs are formed by male and female indent rollers, and the longitudinal edges of the strip are then bent or curled to form articulation means. The metal strip is preferably from 0.5 mm to 0.9 mm in thickness, and may be precoated with a thin film of plastics material on its front surface.

An embodiment of the invention will now be described with reference to the accompanying drawings wherein:

Figure 1 is a front elevation of a section of a roller shutter assembled from laths in accordance with the present invention;

Figure 2 is an end elevation of two laths viewed along section line A-A of Fig. 1 and

Figure 3 is a perspective view of a section of a roller shutter assembled from laths in accordance with the present invention with end pieces removed for clarity.

The roller shutter 1 comprises laths 2 of thin metal. Adjacent laths 2 are articulated with respect to one another by means of an outwardly curled male edge 3 and an inwardly curled female edge 4, as seen in Fig. 2. This means of articulation is known *per se* and does not form part of the present invention. The laths are provided, in well known manner, with end pieces 5 and 6 of plastics material. The end pieces 5, 6 are riveted to the ends of the laths and serve to protect the end edges and to act as runners to facilitate the vertical movement of the shutter in vertical guide channels. The end pieces also prevent the assembled laths becoming detached from each other. The topmost lath of the roller shutter is bolted, in well known manner, to a suitable roller.

The laths of this embodiment of the present invention each possess two longitudinal ribs 7 which extend along the whole length of each respective lath parallel to the longitudinal edges thereof. The profile of the ribs 7 is clearly seen in Fig. 2, wherein the crest 8 of each rib is rounded and projects slightly outwardly from the front surface 9 of the lath, whereas each rib 7 forms a corresponding concavity or longitudinal groove 10 on the rear surface 11 of the lath. The internal profile of the grooves 10 tends to be more V-shaped than rounded, as seen in Fig. 2. The groove 10 is formed by the male part of an indent roller while the rib 7 is formed by the female part of an indent roller. The front surface 9 of the laths may be coated with a thin film of plastics material to improve the visual appearance of the assembled roller shutter, but the ribs 7 may still be formed on a rolling mill without affecting the plastics coating.

The ribs 7 increase the rigidity and strength of the laths 2. Also, the ribs tend to improve the visual appearance of the assembled roller shutter. Furthermore, during assembly, the individual laths 2 may be laid face down on any surface such that the laths rest only upon the crests 8, thus protecting the remaining portions of the front surfaces 9 from scratching.

CLAIMS

1. A roller shutter lath having articulation means along both longitudinal edges thereof, and substantially flat front and rear surfaces between said articulation means wherein at least one longitudinal rib is formed in a surface of the lath and extends substantially parallel to said longitudinal edges.

2. A roller shutter lath as claimed in Claim 1, wherein the crest of the or each rib projects outwardly from the front surface of the lath.

3. A roller shutter lath as claimed in Claim 1 or Claim 2, wherein the lath has two parallel longitudinal ribs of equal dimensions which are spaced apart from each other.

4. A roller shutter lath as claimed in any of the preceding claims wherein the or each rib is formed in the lath by cold rolling.

5. A roller shutter lath as claimed in any of the preceding claims wherein the lath is formed from mild steel.

6. A roller as claimed in any of the preceding claims wherein a front surface of the lath is coated with a film of plastics material.

7. A method of manufacturing a lath as claimed in any of the preceding claims which comprises passing a strip of metal through a rolling mill such that longitudinal ribs are formed by male and female indent rollers, and

the longitudinal edges of the strip are then bent or curled to form articulation means.

8. A roller shutter comprising a plurality of laths as claimed in any of Claims 1 to 6 articulated together along adjoining longitudinal edges.

9. A roller shutter lath substantially as hereinbefore described with reference to the accompanying drawings.

10. A roller shutter substantially as hereinbefore described with reference to the accompanying drawings.

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