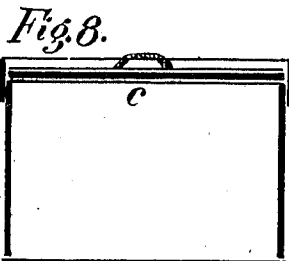
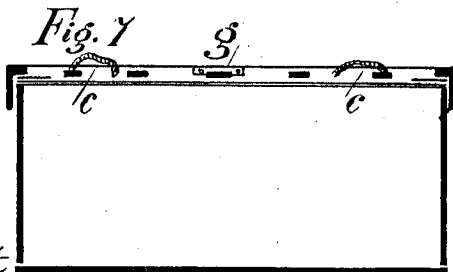
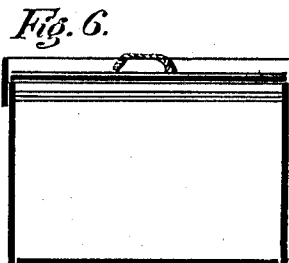
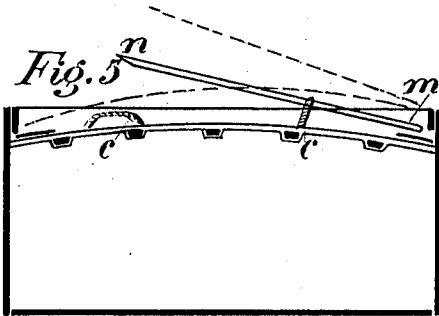
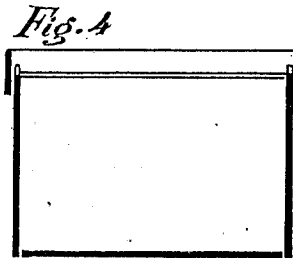
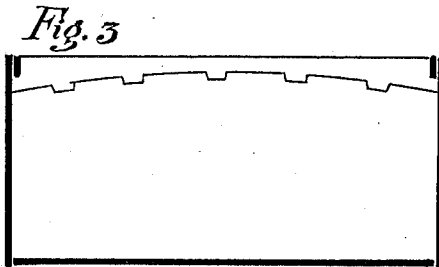
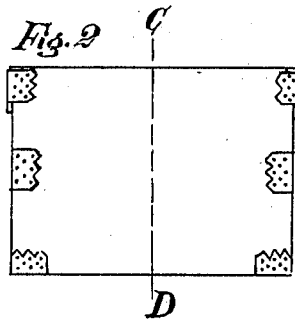
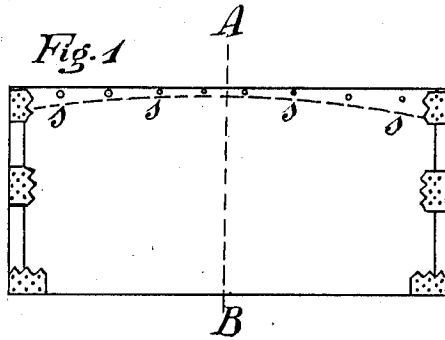


S. MAGGIORANI.
LID FOR BOXES, CASES, &c.
APPLICATION FILED MAR. 30, 1906.

982,436.

Patented Jan. 24, 1911



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UNITED STATES PATENT OFFICE.

SETTIMIO MAGGIORANI, OF ROME, ITALY.

LID FOR BOXES, CASES, &c.

982,436.

Specification of Letters Patent.

Patented Jan. 24, 1911.

Application filed March 30, 1906. Serial No. 308,948.

To all whom it may concern:

Be it known that I, SETTIMIO MAGGIORANI, a subject of the King of Italy, residing at 40 Via Messina, Rome, in the Kingdom of Italy, engineer, have invented certain new and useful Improvements in Lids for Boxes, Cases, and the Like, of which the following is a specification.

This invention has for its object a method of and means for closing boxes, cases and similar packing devices by means of a flexible lid, without having recourse to nails, screws or other means of a like nature.

A constructional form of the object of the invention as applied to a packing case is illustrated by way of example in the accompanying drawing in which:

Figure 1 shows the case in side elevation. Fig. 2 is an end view of the same. Fig. 3 represents a longitudinal section through the case, without lid, on the line C—D of Fig. 2. Fig. 4 is a cross section through the case, without lid, on the line A—B of Fig. 1. Fig. 5 is a longitudinal elevation of the case complete with the lid arched. Fig. 6 is an end view. Fig. 7 is a longitudinal elevation of the case with the lid flat. Fig. 8 is an end elevation of Fig. 7.

The method consists in closing the case or box by means of a flexible lid the length of which is slightly greater than that of the case and which is inserted with force by its edges into grooves formed in the sides of the case, having previously bent or arched it. Accordingly the lid remains in place under the influence of the flexion given to it and which tends to straighten it out; the employment of screws nails or tacks becomes unnecessary, which permits of removing and replacing the lid as many times as desired, without injury to the case or the articles that it contains.

The lid is formed of a wooden plate as thin as possible, which is flexible in the direction of its longitudinal fiber.

If desired this lid may be strengthened inside and outside by cross-pieces of greater or less strength and arranged at varying intervals one from the other, as shown in Figs. 5 and 7, in accordance with the nature of the case and the purpose for which it is intended.

At the two ends of the case grooves are formed in any appropriate manner best adapted to the use to which the case is to be put. For example, in order to avoid the

diminution of the section which occurs with the arrangement illustrated in Fig. 5, the arrangement shown in Fig. 7 may be adopted.

The case or box may be of any desired form, the object of the invention being in all cases to profit by the elasticity of the lid in order to cause it to slide at the two extremities of the opening of the case, it permits of practicing a method of closing which does not necessitate the breaking up of its elements in order to open it, so that the article packed may be repeatedly inclosed and removed without injury.

A ring or loop of string *c* or other suitable means gives a hold for producing the bending of the lid when the case is to be opened or closed. With large cases this object may be attained by means of a rod or handle *m n* with which leverage may be produced at *c* by bearing on the points *m m'* and in this manner producing the desired curvature of the lid in the appropriate direction.

The method of closing considered most appropriate for each particular case may be employed. By way of example a metal strip or wire of any kind passed and repassed through holes and then twisted and sealed on the back of the lid itself may be employed, a lock and key or a padlock or other means may also be employed, the object of the invention consisting in principle in the lid held in place by its flexion.

This lid bears in the direction of its length on the walls of the case in any appropriate manner. This point of support may be either flat or arched in such a manner that the lid is able to retain a portion of the curvature which has been given to it for placing it in position; in Figs. 5 and 6 for example the curvature which the lid retains while occupying its final or closing position is seen, while in Figs. 7 and 8 the lid remains flat in its closing position.

If necessitated by some special circumstances, appropriate means such as wedges *g* (Fig. 7) may be employed for retaining the lid.

It should be understood that wood may be replaced by any substance possessing the same qualities or the same degree of strength and elasticity.

It may be added that the effect obtained with the flexibility of the material which constitutes the lid may likewise be obtained

by forming this lid of some strong and rigid material which is divided into a number of parts connected one with the other by a hinge or other device enabling the said parts to fold together, or these parts need not be connected one with the other at all, the pressure against the walls of the case being sufficient to insure the closing as devised. Finally, in place of grooves formed in the sides of the case small metal plates may be substituted, the edges of the lid being inserted beneath these plates.

What I claim and desire to secure by Letters Patent of the United States is:—

15 A packing case comprising a body portion having shoulders on its inner side near the

top, a removable lid having spring flexion whereby it may be shortened in length by springing it into arched form, said lid being longer when in flat condition than the distance between the shoulders, strengthening cross pieces on the lid, transverse locking means for the lid and loops on the upper face of the lid for removing the same. 20

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses this 15th day of March 1906. 25

SETTIMIO MAGGIORANI.

Witnesses:

GEORGIO SWOMUNTI,
A. REGGI.