Dec. 4, 1923.

A. CAPPABIANCA

MECHANICALLY OPERATED CRIB

Filed Jan. 31, 1923

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Inventor

A. Cappabianca

By

J. H. Bryant.

Attorney
To all whom it may concern:

Be it known that I, ANTONIO CAPPARANCA, a subject of the King of Italy, residing at Braddock, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Mechanically-Operated Cribs, of which the following is a specification.

This invention relates to improvements in mechanically operated cribs.

An important object of the invention is to provide a mechanical means for rocking a crib to eliminate the tiring manual performance of the same operation, and whereby considerable time will be saved the attendant for performing other necessary duties.

A further object of the invention is the construction of efficient, durable mechanism for performing the above mentioned operation.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawing forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a top plan view with a portion of the crib broken away to more clearly show the mechanical operating means carried by the crib supporting frame,

Figure 2 is a vertical sectional view taken on line II—II of Fig. 1,

Figure 3 is a fragmentary vertical sectional view taken on line III—III of Fig. 1,

Figure 4 is a fragmentary vertical sectional view taken on line IV—IV of Fig. 1,

Figure 5 is a fragmentary vertical sectional view taken on line V—V of Fig. 1,

Figure 6 is a fragmentary vertical sectional view taken on line VI—VI of Fig. 1,and

Figure 7 is a detail sectional view showing a portion of a resilient means employed for returning the crib to a垂直 position after the rocking mechanism has stopped.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of this invention, the numeral 1 designates a skeleton frame that is provided for properly supporting the crib 2 and having transverse brace bars 3, 4 and 5 for supporting the operating mechanism to be described hereafter. It is to be understood that the crib 2 may be constructed in any desired manner and provided with perpendicular supporting rings or eyes 6 that are carried by the opposite ends of the crib and positioned centrally thereof for pivotally engaging supporting pins 7 carried by the opposite ends of the skeleton frame 1.

The operating mechanism employed for rocking the crib 2 is supported, as stated above, by the transverse brace bars 3, 4 and 5, and consists of a driven shaft 8 that is suitably journaled in the bearing members 9 and 10 that are carried by the brace bars 3 and 4 respectively. This driven shaft 8 is provided with a pulley wheel 11 that is rigidly secured to the end 12 and is further provided with a pinion 13 that is positioned centrally between the said brace bars 3 and 4.

There is further provided a relatively long shaft 14 that extends longitudinally of the skeleton frame 1 and is suitably journaled in the bearing members 15, 16 and 17 carried by the brace bars 3, 4 and 5 respectively.

This longitudinally extending shaft 14 is positioned substantially upon a vertical plane with the pivot pins 6 carried by the skeleton frame 1 and is provided with a gear 18 that is positioned between the brace bars 3 and 4 and constantly in mesh with the pinion 13 for affording operative connection with the driven shaft 8. Referring particularly to Fig. 4, there is shown an eccentric block 19 that is suitably keyed to the longitudinal shaft 14 and is loosely engaged by the split collar 20 that is secured thereto by the clamping bolts 21, the split collar 20 is provided with a boss 22 that is adapted for receiving one end of a rod 23 threaded therein. The outer end of this rod 23 is pivotally connected, as at 24, to an arm 25 carried by the stub shaft 26. Referring to Fig. 1, it will be seen that this shaft 26 is suitably journaled, as at 27, to the transverse brace bar 5 and is further provided with an arm 28 that is rigidly connected to the outer end of this shaft and best shown in Fig. 6. Pivotally connected, as at 29, to the upper end of the arm 28 is a link 30 that is pivotally connected at its opposite end 31 to a lug 32 that is rigidly secured, as at 33, to one of the bottom slats 34 carried by the crib 2 and best shown in Fig. 1.

The means employed for returning the crib to a vertical position, after the rocking mechanism has been shut off, is shown in de-
tail in Figs. 3, 5 and 7. Referring to Figs. 3 and 7 there is shown an eccentric block 35 that is suitably keyed to the longitudinal shaft 14 and is loosely engaged by the split collar 36 that is retained in position by means of the clamping bolts 37, as shown. Secured to the upper edge of the split collar 36 is an eye member 38 that is connected to a coil spring 39 which extends to an eye member 40 carried by one of the bottom slats of the crib 2. In Fig. 5 there is shown a collar or ring member 41 that is loosely mounted upon the end 42 of the longitudinal shaft 14 and is provided with an arm 43 that is connected by the spring 44 and eye 45 with one of the bottom slats of the crib.

The driving power for operating this rocking mechanism embodies an electric motor 46 that is properly supported and secured to the transverse brace bars 3 and 4 and has an electric switch 47 for controlling the supply of current thereto. The armature shaft of the motor 46 is provided with a small pulley wheel 48 that is operatively connected to the pulley wheel 49 carried by the driven shaft 8, by the belt 49 as shown.

The operation of the device is as follows:—

Upon turning on the current to the electric motor 46, the driven shaft 8 will be rotated by means of the belt 49 operatively connected with the pulley wheels 41 and 48, and the pinion 13 will drive the gear 18 for rotating the longitudinal shaft 12. The rotation of this shaft 14 will impart movement to the rod 28, through the eccentric block 19 and split collar 20 for actuating the link 30 to cause the cradle 2 to rock upon the supporting pins 7 carried by the skeleton frame 1. Upon shutting off the current to the motor 46 the rocking of the cradle will naturally stop, the spring 44, carried by the arm 43, and the spring 39, carried by the collar 36, will exert a pull upon the cradle 2, should it stop in other than a vertical position. This pull will be sufficient to operate the mechanism for allowing the cradle to be returned to its desired resting position.

It is to be understood that the form of this invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described the invention, I claim:—

1. In a device of the class described a frame, a driven shaft carried by said frame, a longitudinal shaft carried by said frame bars, a longitudina shaft carried by said frame bars and operatively connected to said driven shaft, a connection between said longitudinal shaft and cradle for rocking the latter, and means carried by said frame bars for operating said driven shaft.

2. In a device of the class described a frame, a cradle pivotally carried by said frame, transverse brace bars carried by said frame, a driven shaft carried by said brace bars, a longitudinal shaft carried by said brace bars and operatively connected to said driven shaft, a connection between said longitudinal shaft and cradle for rocking the latter, means carried by said brace bars for operating said driven shaft, and means associated with said longitudinal shaft and cradle for returning the latter to a vertical position after the rocking operation has been stopped.

3. In a device of the class described a skeleton frame, a cradle pivotally carried by said frame, brace bars carried by said frame, a driven shaft carried by said brace bars, a longitudinal shaft carried by said brace bars and operatively connected to said driven shaft, an eccentrically operated connection between said longitudinal shaft and cradle for rocking the latter, and means carried by said brace bars for rotating said driven shaft.

4. In a device of the class described a skeleton frame, a cradle pivotally supported by said frame, brace bars carried by said frame, a driven shaft journaled to said brace bars, a longitudinal shaft journaled to said brace bars and operatively connected to said driven shaft, an eccentric block keyed to the longitudinal shaft, a collar engaging said eccentric block, a connection between said collar and cradle for rocking the latter, and means carried by said brace bars for operating said driven shaft.

5. In a device of the class described a skeleton frame, a cradle pivotally supported by said frame, brace bars carried by said frame, a driven shaft journaled to said brace bars, a longitudinal shaft journaled to said brace bars and operatively connected to said driven shaft, an eccentric block keyed to the longitudinal shaft, a collar engaging said eccentric block, a connection between said collar and cradle for rocking the latter, means carried by said brace bars for operating said driven shaft, and resilient means for returning said cradle to a vertical position after the rocking operation has been stopped.

In testimony whereof I affix my signature.

ANTONIO CAPPABIANCA.