F. W. SWAUTUSCH.

STROKING ATTACHMENT FOR CONCRETE MIXING MACHINES.

APPLICATION FILED DEC. 26, 1911.

1,022,607. Patented Apr. 9, 1912.

Fig. 1.

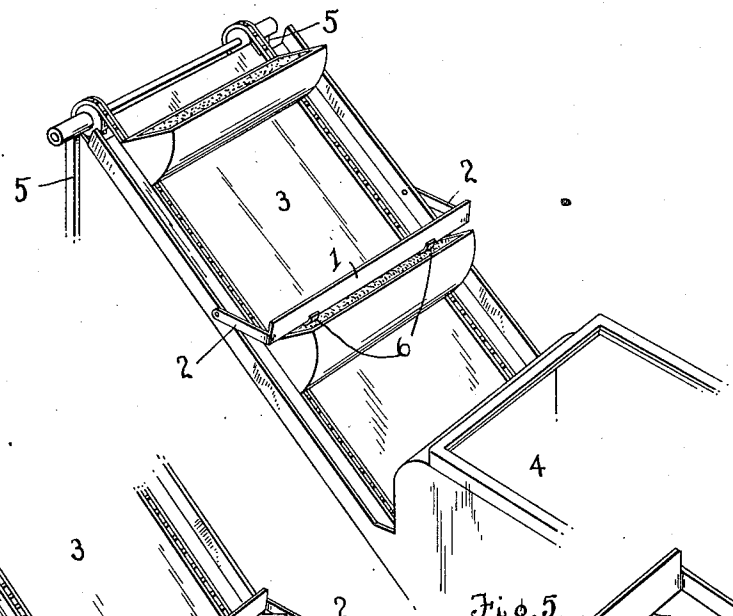


Fig. 2.

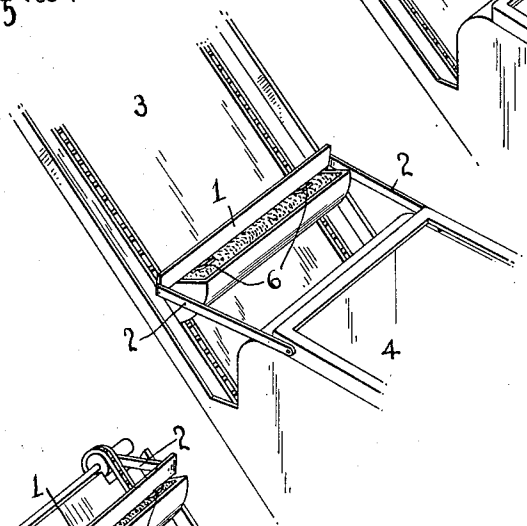


Fig. 5.

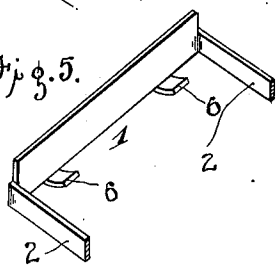


Fig. 4.

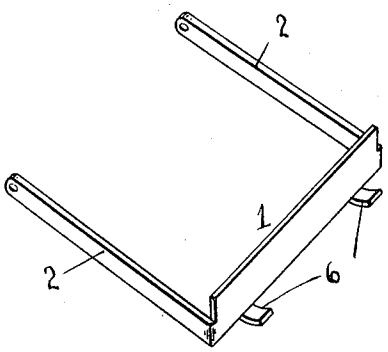
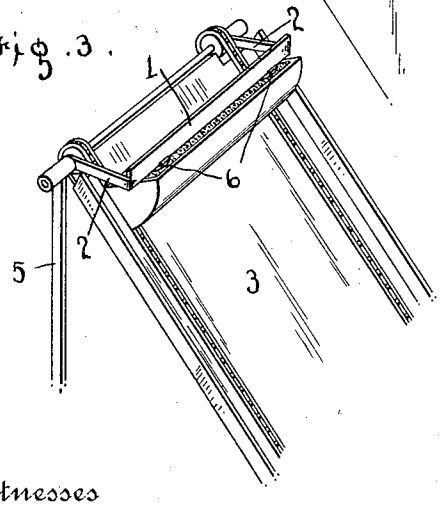


Fig. 3.



Inventor

F.W. Swautusch

Witnesses

L. B. James

C. E. Hunt.

by H. B. Williamson & Co

Attorneys

UNITED STATES PATENT OFFICE.

FRANK W. SWAUTUSCH, OF BUTLER, INDIANA.

STROKING ATTACHMENT FOR CONCRETE-MIXING MACHINES.

1,022,607. Specification of Letters Patent. Patented Apr. 9, 1912.

Application filed December 26, 1911. Serial No. 667,760.

To all whom it may concern:

Be it known that I, FRANK W. SWAUTUSCH, a citizen of the United States, residing at Butler, in the county of Dekalb and State of Indiana, have invented certain new and useful Improvements in Stroking Attachments for Concrete-Mixing Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in stroking attachments for concrete mixing machines.

One object of the invention is to provide a stroking attachment for concrete mixing machines by means of which the buckets of the endless conveyers are successively stroked or leveled off to an even uniform fullness as they are brought up from the hoppers, thus correctly proportioning the ingredients to be mixed.

Another object is to provide a stroking attachment which may be applied to any suitable part of the machine and which will operate automatically.

With these and other objects in view the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings; Figure 1 is a perspective view of a portion of the leveling mechanism of a concrete mixing machine showing the invention applied thereto and attached to the guard pan of the conveyer; Fig. 2 is a similar view showing the invention attached to the hopper of the conveying mechanism; Fig. 3 is a similar view showing the invention attached to the standards of the upper shaft bearings of the conveying mechanism; Fig. 4 is a detail perspective view of the invention as illustrated in Figs. 1 and 3 of the drawings; Fig. 5 is a similar view of the invention as shown in Fig. 2.

In concrete mixing machines wherein the ingredients are elevated or conducted to the mixing trough from hoppers by means of endless bucket conveyers, the measuring or proportioning of the ingredients is performed by the buckets of the conveyers and it is therefore essential that the buckets be evenly filled so that a uniform quantity of material is conducted thereby to the mixing trough. The tendency of sand when moist or wet to pack and pile up on the buckets when taken thereby from the sand hopper, renders the correct proportioning of the sand uncertain as, while the buckets would perhaps uniformly measure dry sand from the hopper, the next hopper full of sand might be wet or moist in which event the same would pile up to a greater or less extent above the buckets which would thus carry up too much sand and in order to overcome this objection or difficulty, I have provided an improved means for stroking or leveling off each bucket of sand brought up from the hopper, thus providing a uniform supply of sand to the mixing trough.

My improved leveling or stroking mechanism comprises a stroking bar 1 formed integral with or rigidly secured at its ends in any suitable manner to the outer ends of right angular supporting and attaching arms 2, the inner ends of which are pivotally or hingedly connected in any suitable manner to any suitable part of the conveying mechanism or frame work of the machine. In Fig. 1 of the drawings the arms 2 of the stroker are shown as being hingedly connected to the guard pan 3 of the conveyer in which arrangement the stroker projects outwardly around the conveyer as shown and in position to permit the bar 1 of the frame to engage the top of the buckets as the latter are brought up from the hopper and to slide across the top of the bucket thus pushing off all surplus sand and leveling off each bucket as the same is brought into engagement with the stroker.

In Fig. 2 of the drawings the stroker is shown as having the inner ends of the arms 2 hingedly or pivotally connected with the hopper 4 of the conveyer in which arrangement the stroker projects outwardly above the conveyer chains and in position to engage the top of the buckets as they are brought up by the chains so that the top of each bucket is drawn beneath and in engagement with the lower edge of the stroker 1 thus drawing off any surplus material projecting above the upper edge of the buckets and effectually leveling the same. In Fig. 3 of the drawings the stroker is shown as having its attaching arms 2 pivotally or hingedly connected to the upper portions of the supporting standards 5 for the bearings of the upper conveyer shaft in which arrangement the stroker projects outwardly

around the chains and buckets of the conveyer in the same manner as when attached to the guard pan as shown in Fig. 1 of the drawings.

In order to obviate any danger of the scraper or stroker bar 1 catching upon the edges of the buckets, I provide said bar with lifting plates or shoes 6 which are secured to the lower edge of the bar 1 and which in the form of the invention shown in Figs. 1, 3 and 4 have their outer ends curved upwardly to a slight extent to cause the same to ride freely over the outer edge of the bucket when engaged therewith thereby lifting the stroker as the bar 1 approaches the outer edge of the hopper, thus preventing the bar from catching onto the outer edge of the hopper. This arrangement of the plates 6 is clearly illustrated in Fig. 4 of the drawings. In the form and arrangement of the device shown in Figs. 2 and 5 of the drawings the plates 6 are curved upwardly at their inner ends as in this arrangement of the device the hoppers are drawn beneath the scraping bar of the stroker in the opposite direction from that in the arrangement shown in Figs. 1 and 3. After the buckets have been drawn beneath the strokers the latter drop down by reason of the pivoted or hinged connection thereof with their supports, in position to stroke off the next bucket when brought into engagement therewith.

By providing a stroking mechanism constructed in accordance with my invention it will be seen that the contents of each bucket will be stroked or scraped off level with the top of the bucket so that the material will be conveyed to the mixing mechanism in uniform quantity.

From the foregoing description taken in connection with the accompanying drawings the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is;

1. In a traveling bucket conveyer a yieldingly supported stroking mechanism adapted to automatically stroke off the buckets of the conveyer whereby a uniform quantity of material is elevated by the buckets.

2. In a traveling bucket conveyer a hingedly supported stroking mechanism adapted to scrape off the contents of the buckets even with the top thereof whereby a uniform quantity of the material is conveyed by the buckets.

3. In a traveling bucket conveyer a stroking mechanism comprising a scraping bar, supporting and attaching arms connected with the end of said bar and adapted to be hingedly connected to a suitable support whereby the scraper bar is held in position to engage the buckets as the latter are brought up by the conveying mechanism thereby scraping off the contents of the buckets even with the top of the same.

4. In a traveling bucket conveyer a stroking mechanism comprising a scraping bar, supporting and attaching arms connected with the end of said bar and adapted to be hingedly connected to a suitable support whereby the scraper bar is held in position to engage the buckets as the latter are brought up by the conveying mechanism thereby scraping off the contents of the buckets even with the top of the same, and means to prevent said scraping bar from catching upon the edges of the bucket.

5. In a traveling bucket conveyer a stroking mechanism comprising a scraping bar, supporting and attaching arms connected with the ends of said bar and adapted to be hingedly connected to a suitable support whereby the scraper is held in position to engage the buckets as the latter are brought up by the conveying mechanism thereby scraping off the contents of the buckets even with the top of the same, and lifting plates secured to said scraping bar, said plates being curved upwardly at one end to engage the outer edge of the buckets and to lift the scraping bar over the same.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK W. SWAUTUSCH.

Witnesses:
C. B. MARON,
G. T. NICHOLS.