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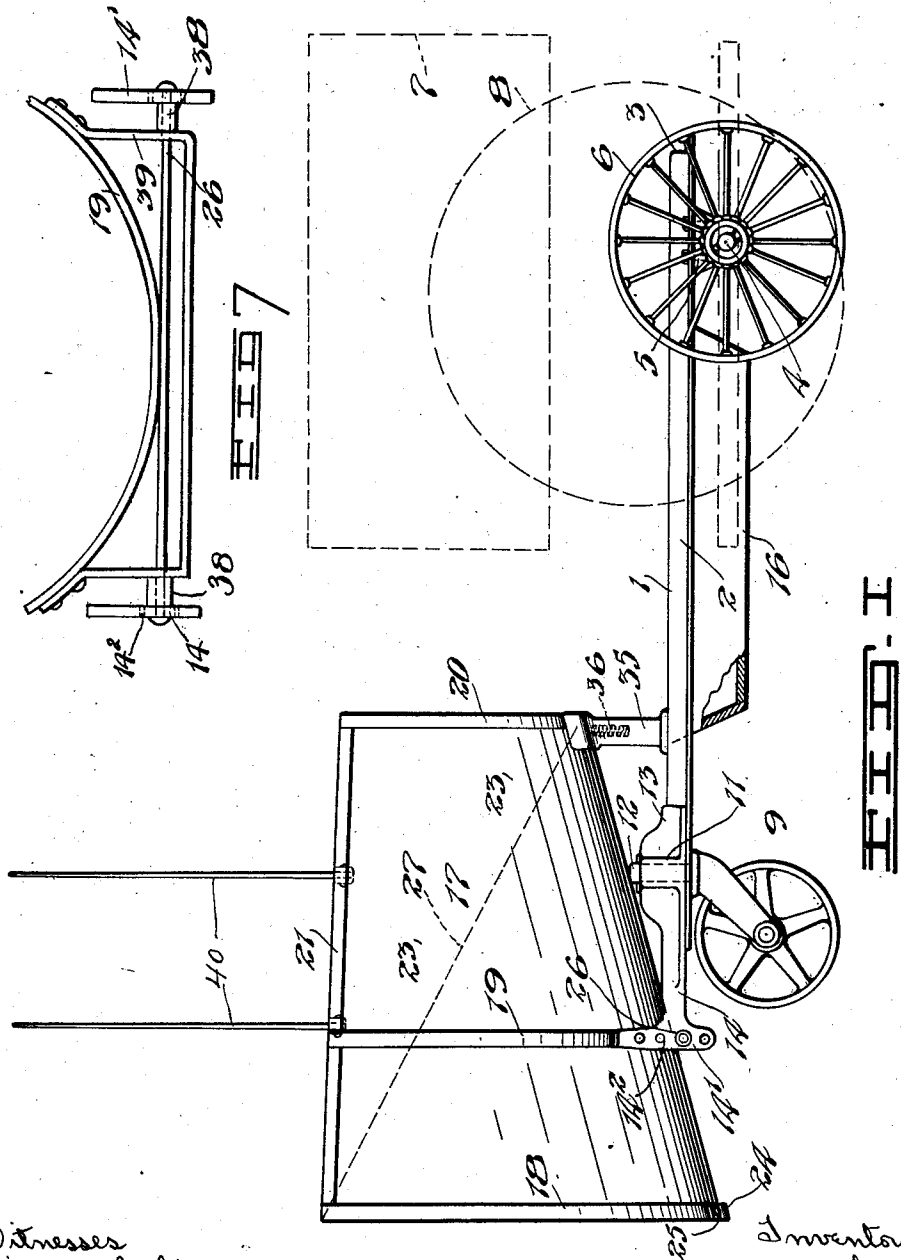
SHOCKING MACHINE.

APPLICATION FILED NOV. 12, 1909.

1,010,464.

Patented Dec. 5, 1911.

3 SHEETS—SHEET 1.



Witnesses
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Inventors
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By Fred B. Fustenthauf
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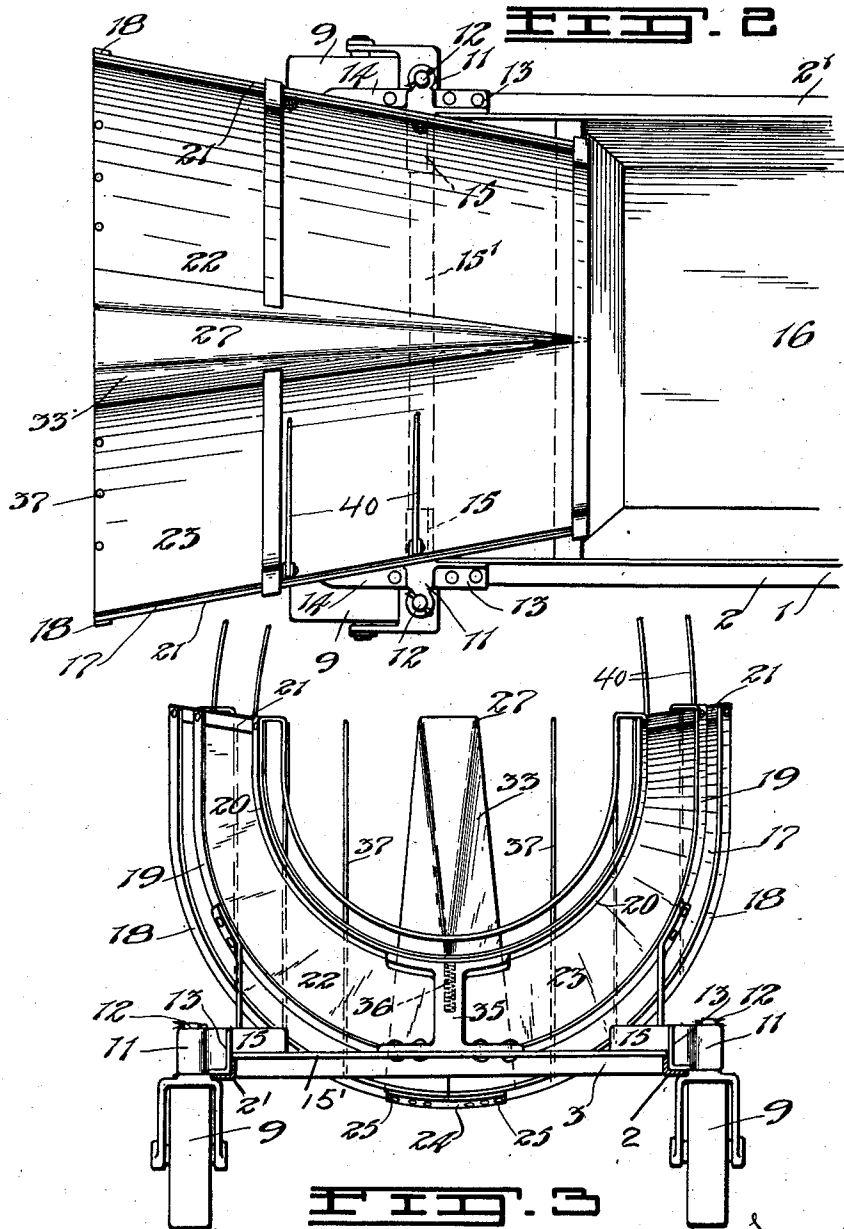
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3 SHEETS—SHEET 2.



Witnesses
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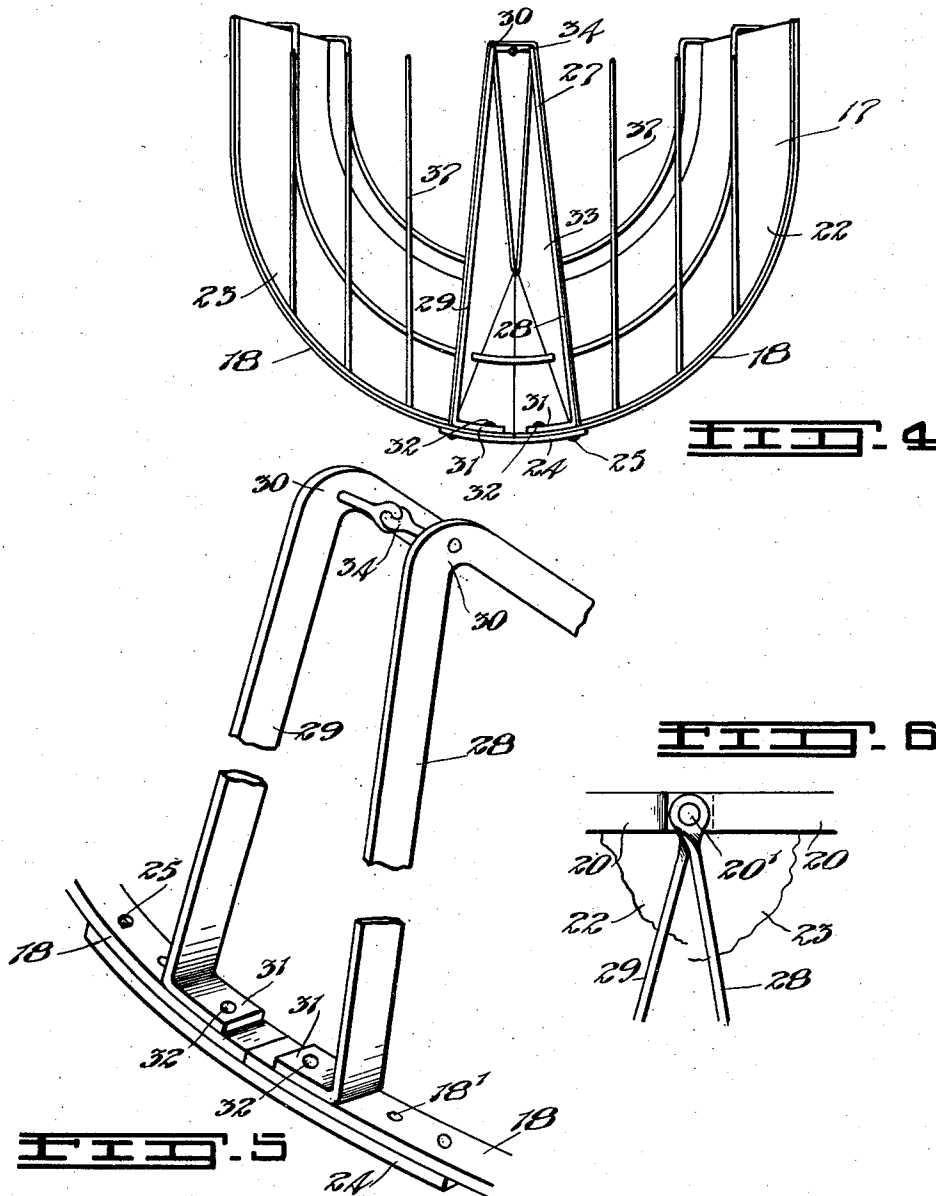
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3 SHEETS-SHEET 3.



Witnesses
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UNITED STATES PATENT OFFICE.

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MANITOBA, CANADA.

SHOCKING-MACHINE.

1,010,464.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed November 12, 1909. Serial No. 527,745.

To all whom it may concern:

Be it known that we, WILLIAM FREDERICK THORNE and JAMES RANDOLPH INNES HOPKINS, both of the city of Winnipeg, in the Province of Manitoba, Canada, have jointly invented certain new and useful Improvements in Shocking-Machines, of which the following is the specification.

Our invention relates to shocking machines adapted for use with harvesters or binding machine of the ordinary form.

The shocker is adapted to be connected to the binder at the side adjoining the binder deck in such relation thereto that it will receive the bound sheaves as they are deposited from the binding machine.

The object of the invention is to provide the shocker with a more satisfactory sheaf receiving and shock forming receptacle or basket than has heretofore been employed in machines of this particular class.

The essential feature of the improvement lies in the provision of an adjustable basket which allows the base of the shock to be spread out or enlarged at will at the same time rendering it possible to retain either a large or a small air space or opening in the center of the shock when deposited.

With the above primary and other incidental objects in view as will appear in the specification the invention consists in the construction, arrangement of parts, or their equivalents, hereinafter described and set forth in the claims.

Referring to the drawings,—Figure 1 represents a side elevation of our grain shocker, the master wheel of the binder and the deck being shown in dotted outline. Fig. 2 represents a plan view as in Fig. 1, a portion of the box like platform being broken away. Fig. 3 is a front elevation of the machine as in Fig. 2. Fig. 4 is an end elevation of the shock receiving receptacle. Fig. 5 is an enlarged detailed perspective view showing certain adjustable parts of the receiving receptacle. Fig. 6 is an enlarged detailed plan view of a portion of the receptacle showing the manner in which the forward ends of the divider bars are connected to the basket. Fig. 7 is a rear elevation of a portion of the basket and one of the bearings showing the sleeve in position.

In the drawings like characters of reference indicate corresponding parts in each figure.

1 represents the shocker frame which is formed from longitudinal members 2 2' and transverse members 3.

4 is a supporting shaft secured firmly to the shocker frame by suitable brackets 5 said shaft being supplied at its one end with a carriage wheel 6 and having its opposite end fastened in any desirable manner to the binding machine frame so that the sheaves passing from the binder deck 7 will drop onto the shocking machine platform, as later described.

8 represents the master wheel of a binding machine.

9 are caster wheels supporting the extending ends of the longitudinal members 2 2', said caster wheels being secured to the shocker frame through the agency of bearings 11 which receive the shanks 12 of the caster wheels pivotally and have three extending arms 13, 14 and 15 respectively, the arms 13 and 14 of which are bolted to the members 2 2', and the arms 15 of which are united by a cross bar 15'. This latter bar prevents the shocker frame from spreading as will readily be understood. The arms 14 are enlarged into heads 14' which are provided with a vertically directed set of openings 14² which receive the pivoted pins of the basket, later to be described, such openings allowing of adjustment to the basket.

16 is a box like platform secured centrally in the shocker frame in any convenient manner so that it will receive the sheaves deposited from the binder deck as already referred to.

17 is the basket or receptacle in which are placed the sheaves to be formed into a shock. The body of the basket is formed from similar sets of arched bars 18 19 and 20 united at their upper ends by opposing bars 21 and over which bars we have spread metallic sheets 22 and 23. The bars 20 are united by a pivoted pin 20' which allows them to have a slight motion in respect to each other when the basket is spread, as later explained. The bars 18 are secured to the plate 24 by bolts 25 the bolts passing through openings formed both in the plate and bar.

It is to be understood that the plate has a series of openings throughout its length into any one of which the bolts can be fastened thereby allowing the bars to be adjusted toward and away from each other. As the bars are spread the "butt" or rear end

of the receptacle is widened so that the formed shock has a larger base. The forward end or that contained by the bars 20 remains to all intent and purpose the same although there is a slight negligible contraction produced by the said bars turning on the pivoted pin 20'. The receptacle is supported from the bearings 11 by pivoted pins 26 which pass into the openings 14² already referred to. Within the basket is located a divider 27 constructed as now described.

28 and 29 are complementary bars having each a knee formed at 30 by bending them intermediate of their length and foot pieces 31 constructed at their rear end, the said foot pieces being adapted to rest on the bars 18 to which they are secured by bolts 32. The bars are provided with a series of openings 18' so that the position of the legs on the bars can be varied as desired by removing the bolts from one set of openings and placing them in another set. The forward ends of the bars 28 and 29 converge downwardly and are held in position by the pivot pin 20' which passes through them as well as the bars 20.

33 is a sheet metal covering placed over the bars 28 and 29 and inclosing the same.

34 are inter-linked eye bolts secured to the knees of the bars 28 and 29.

35 is a standard secured firmly to the rearward cross bar 3 and having its upper end adapted to receive and support the smaller end of the basket. The standard is bored centrally to provide a vertically directed opening to receive a spiral spring 36 which extends above the upper face of the standard and engages with the end of the basket when it initially drops back on the standard thereby reducing the impact to a great extent.

37 are vertically directed rods or fingers secured permanently to the bars 18 adapted to prevent the sheaves from longitudinal displacement in the basket. We are aware that a basket somewhat of this form has been used heretofore but in any former baskets that have come under our notice there has been no provision made for enlarging or widening the butt of the shock, or for increasing or decreasing the opening formed by the divider in the center of the shock.

It will be seen that with our invention it is possible to secure any required relative adjustment of the basket and divider owing to the fact that one can spread or close the bars 18 and adjust the relative position of the legs to the bars.

In order to allow the basket to expand and contract we have found it necessary to make the pivot pins 26 longer than would otherwise be necessary so that they may always remain within the bearings when they are caused to slide by the contraction or expansion. However in order that the basket may

be at all times centered it is necessary to provide sleeves 38 which are slipped on the pivot pins and appear between the enlarged ends 14' of the arms 14 and the brackets 39 extending from the basket. It is to be understood that a number of these will be supplied with each machine so that as soon as the basket has been adjusted to satisfy the operator he can insert a sleeve on each pin which will prevent the basket from moving sidewise or sliding on the pins. These sleeves can be made readily removable or the pivot pins can be attached so that they can be removed to insert the sleeves. It is suggested that a rod could be inserted passing completely across the basket and under the same which would fulfil the same purpose as the pivot pins. In this latter case the rod could be removed to insert the sleeves and afterward held against longitudinal displacement by suitable pins as will be readily understood. Secured to the bars 21 are pressure bars 40, which close over the sheaves after they are formed into a shock in the basket to retain them from slipping from the basket when it upsets. These bars form no part of the invention.

What we claim as our invention is:

1. A shocking machine comprising a basket, means for adjusting the width of the same, and a divider within the basket.
2. A shocking machine comprising a basket, means for adjusting the width of the same, a divider within the basket, and means for adjusting the width of said divider.
3. In a shocking machine, a pivotally supported shock forming basket having its rear end adjustable to enlarge or decrease the base of the shock carried thereby, and an adjustable divider within the basket, as and for the purpose specified.
4. In a shocking machine, the combination with a pivotally supported shock forming basket formed from two similar portions pivotally secured together at one end, and means securing the portions in adjustable relation the one to the other at the other end, as and for the purpose specified.
5. In a shocking machine the combination with a suitable supporting frame, of a shock forming basket formed from two similar portions pivotally secured together at one end and a plate adjustably securing together the opposite ends.
6. In a shocking machine, the combination with a suitable frame of a forwardly converging shock forming basket formed from two complementary portions pivotally secured together at the narrow end of the basket and a plate adjustably securing them together at the opposite or enlarged end of the basket, as and for the purpose specified.
7. In a shocking machine, the combination with a suitably supported frame of a compressible and expansible shock forming bas-

ket pivotally carried by the frame, said basket comprising complementary sets of arched bars spaced apart at their upper ends by longitudinally extending rods and covered over
 5 with sheet metal plates to which they are fastened, a pivot pin uniting the approaching pair of bars at the forward end of the basket and a plate adjustably secured by removable bolts to the approaching pair of
 10 bars at the opposite end of the basket, as and for the purpose specified.

8. In a shocking machine, a pivotally supported contractible and expansible basket comprising similar sets of opposing complementary arched bars, a longitudinally extending rod uniting the upper ends of the bars of each set, independent sheet metal plates secured to the bars and forming the
 15 body of the basket, a pivot pin uniting the approaching ends of one pair of bars at one end of the basket and a plate located beneath an approaching pair of bars at the opposite end of the basket and secured thereto adjustably by means of removable bolts, as and for
 20 the purpose specified.

9. A shocking machine comprising a basket, a divider within the same, and means for adjusting the width of said divider.

10. A shocking machine comprising a basket, a divider within the basket, and means for adjustably securing one end of the divider to the basket so that the width of the divider may be varied.

11. In a shocking machine, the combination with a pivotally supported basket adapted to form a shock of a divider located centrally in the basket and passing throughout the length thereof the forward end of

the divider being permanently secured to the basket and the rearward end being adjustably secured thereto allowing of the contraction or expansion of the latter end of the divider, as and for the purpose specified.

12. In a shocking machine, the combination with a pivotally supported basket adapted to form a shock of a divider located in the basket and passing centrally throughout the length thereof and comprising a number of bars pivotally secured forwardly to the basket and rearwardly adjustably to the basket, and an inclosing plate secured to the bars, as and for the purpose specified.

13. In a shocking machine, the combination with a pivotally supported basket adapted to form a shock of a divider located centrally within the basket and passing longitudinally throughout the length thereof comprising a number of complementary bars bent each intermediate of its length to form a knee said bars converging downwardly and forwardly and being united to the forward end of the basket by a pivot pin, the rear end of said bars being directed downwardly to the rear of the basket and formed into legs adjustably secured to the basket by bolts, means hingedly connecting the bars, and a sheet metal plate inclosing the bars and secured to the same, as and for the purpose specified.

Signed at Winnipeg, in the Province of Manitoba, this 19th day of October 1909.

WILLIAM FREDERICK THORNE.

JAMES RANDOLPH INNES HOPKINS.

In the presence of—

G. S. ROXBURGH,

M. A. SOMERVILLE.