

(No Model.)

4 Sheets—Sheet 1.

E. PRIDMORE.
HARVESTER.

No. 529,954.

Patented Nov. 27, 1894.

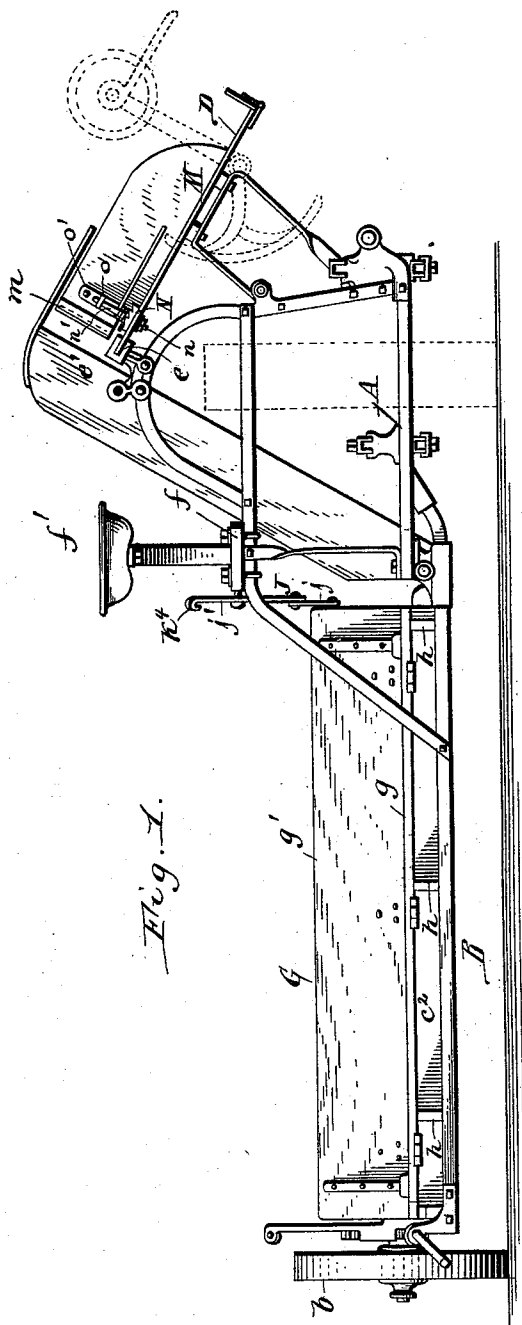


Fig. 1.

Witnesses:

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Theo. L. Popp.

Edward Pridmore Inventor,

By Wilhelm & Bonner,

Attorneys.

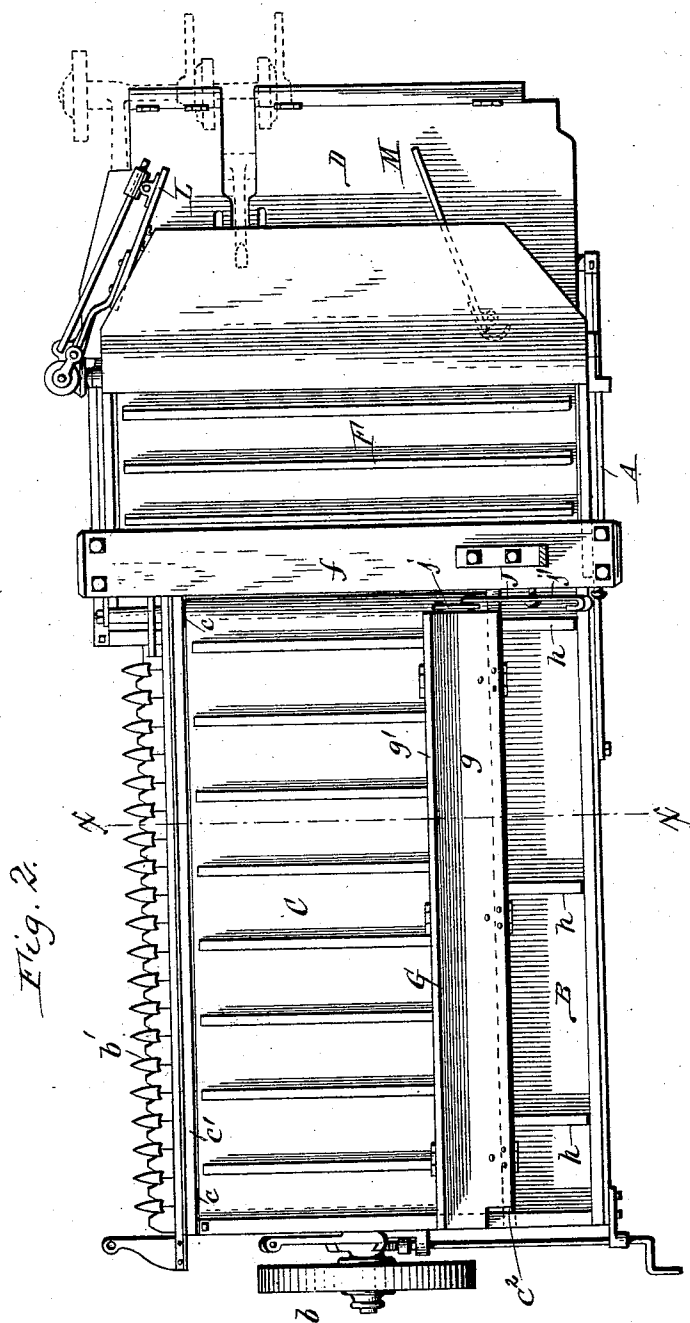
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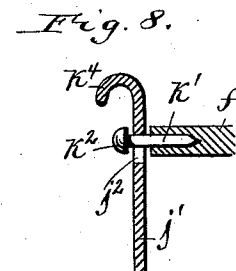
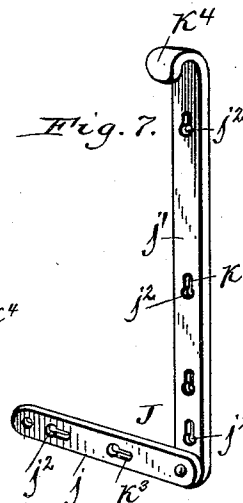
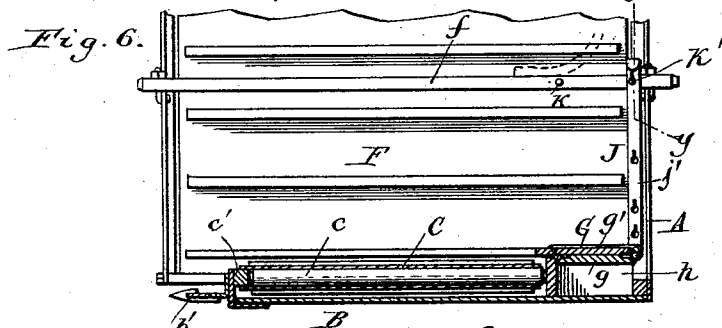
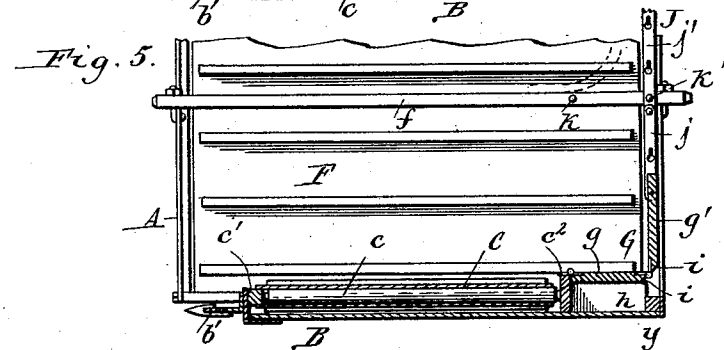
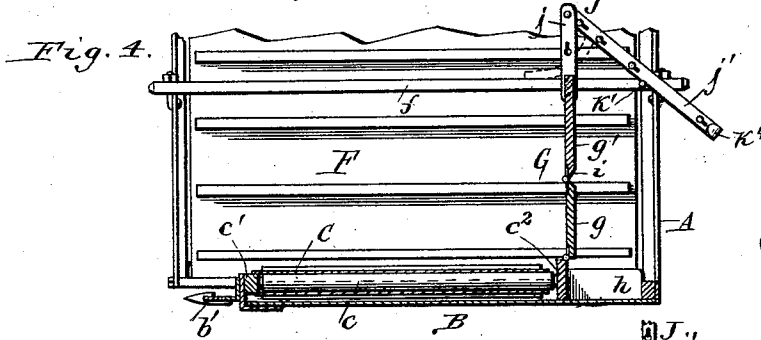
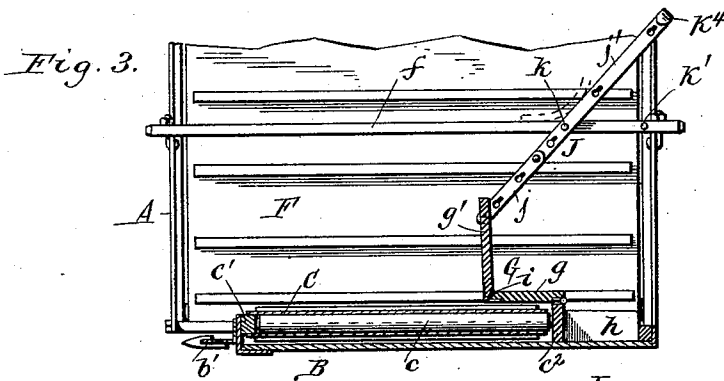
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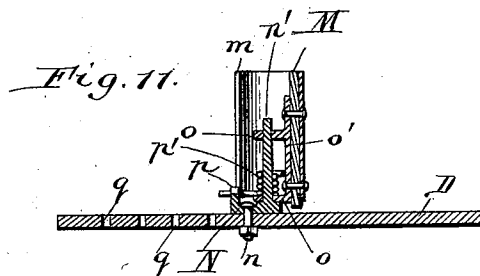
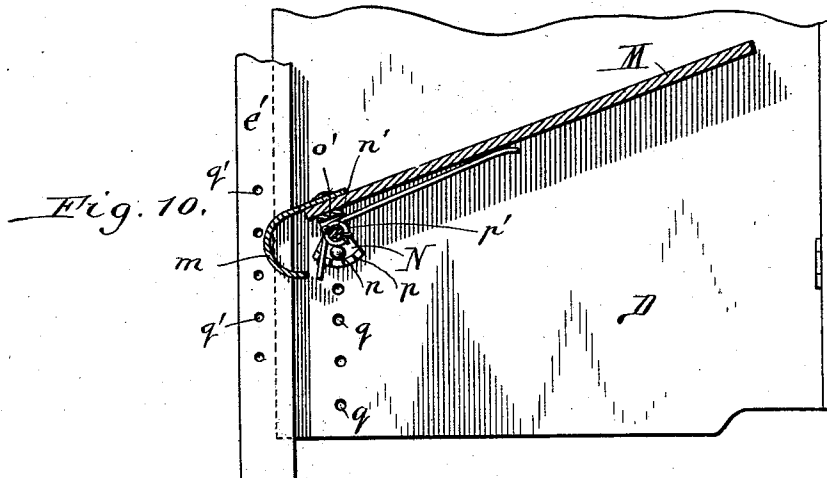
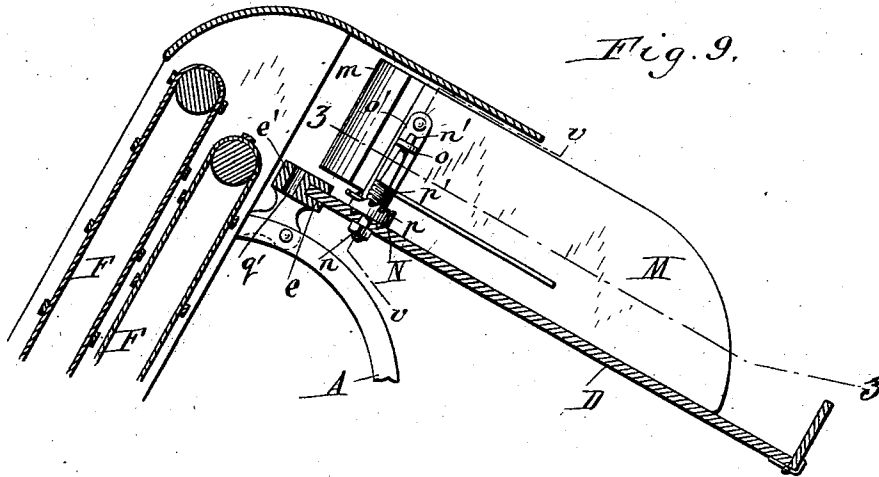
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UNITED STATES PATENT OFFICE.

EDWARD PRIDMORE, OF BATAVIA, NEW YORK, ASSIGNOR TO THE
JOHNSTON HARVESTER COMPANY, OF SAME PLACE.

HARVESTER.

SPECIFICATION forming part of Letters Patent No. 529,954, dated November 27, 1894.

Application filed August 29, 1892. Serial No. 444,384. (No model.)

To all whom it may concern:

Be it known that I, EDWARD PRIDMORE, a citizen of the United States, residing at Batavia, in the county of Genesee and State of New York, have invented a new and useful Improvement in Harvesters, of which the following is a specification.

This invention relates to the wings and head boards of grain harvesters whereby the heads of the grain are adjusted upon the platform and binder deck and has the object to provide means for adjusting these devices to grain of different lengths.

In the accompanying drawings consisting of four sheets:—Figure 1 is a fragmentary rear elevation of a grain harvester provided with my improvements. Fig. 2 is a top plan view thereof. Fig. 3 is a vertical longitudinal section of the platform and connecting parts in line $x-x$, Fig. 2, showing the wing adjusted for operating upon short grain. Figs. 4, 5 and 6 are similar sections showing the various positions of the wing adjusted for medium, long and very long grain. Fig. 7 is a perspective view of the adjusting bar for holding the wing in position. Fig. 8 is a fragmentary vertical section of the adjusting bar and foot board in line $y-y$, Fig. 6. Fig. 9 is a sectional elevation of the binder deck, and the board for adjusting the heads of the grain mounted thereon and connecting parts. Fig. 10 is a section of the same in line $z-z$, Fig. 9. Fig. 11 is a cross section in line $v-v$, Fig. 9.

Like letters of reference refer to like parts in the several figures.

A represents the main frame of the harvester, and B the harvester platform which is supported at its grainward end by a grain wheel b and provided along its front end with the usual cutter mechanism b' . C represents the endless belt or apron whereby the cut grain which falls upon the platform is carried from the grainward to the stubble-ward end of the platform. This apron passes around rollers $c c$ journaled in transverse rails $c' c^2$ secured upon the platform. D represents the elevated binder deck which is arranged at the stubble-ward end of the machine and upon which the grain is tied into sheaves or

bundles by any suitable binder mechanism, the latter being indicated by dotted lines in Figs. 1 and 2. The binder deck is capable of lengthwise adjustment and is arranged to slide with its upper edge in a groove e formed in a longitudinal bar e' which latter is secured with its ends to the main frame of the machine. F represents the inclined endless belts or aprons whereby the grain is elevated from the platform apron to the binder deck in the usual manner. f is the foot board arranged over the elevator and supported at its ends upon the main frame and f' is the seat secured to the foot board. All of these parts may be of any ordinary or suitable construction.

G represents the wing whereby the heads of the grain are adjusted as the grain falls upon the platform apron. This wing is arranged along the rear portion of the platform apron and consists of a lower section g hinged with its lower edge to the top of the rear platform rail c^2 and an upper section g' hinged with its lower edge to the upper edge of the lower section g . These sections can be variously arranged and folded one upon the other so as to form an abutment for the heads of the grain at different distances rearwardly from the cutter mechanism, thereby enabling the wing to be adjusted for short or long grain as may be necessary in order to properly straighten the grain upon the platform apron. When harvesting short grain, the lower section g of the wing is swung forwardly until it is arranged horizontally and overlaps the rear portion of the platform apron and the upper section g' is arranged vertically to form the abutment for the heads of the grain, as represented in Figs. 1, 2 and 3. When the grain is of medium length the wing is raised so that both of its sections stand vertically along the rear edge of the platform apron as represented in Fig. 4. When harvesting long grain, the lower section of the wing is swung rearwardly into a horizontal position and rests upon the supporting blocks $h h$ secured to the platform in rear of the rail c^2 while the upper section of the wing is arranged vertically, thereby moving the abutment rearwardly from the platform apron a distance

equal to the width of the lower section, as represented in Fig. 5. When harvesting grain of unusual length, the lower section of the wing is swung backwardly until it rests upon the supporting blocks *h h* and the upper section is swung forwardly and folded upon the lower section so that both sections are arranged horizontally, as represented in Fig. 6, thereby removing all obstructions on the platform in rear of its apron and permitting grain of any length to be deposited on the platform. The hinges connecting the sections of the wing are preferably placed on the front side of the sections and in order to permit the latter to fold freely upon each other and assume the different positions, the adjoining rear edges of the sections are beveled, as shown at *i* in the drawings.

J represents an adjusting bar whereby the wing is held in its various positions. This adjusting bar is composed of a lower arm *j* which is pivoted to the inner edge of the upper section of the wing and an upper arm *j'* which is pivoted with its lower end to the upper end of the lower arm. The adjusting bar is provided with a longitudinal row of openings *j²* which are adapted to engage with a front and a rear pin *k k'* secured to the adjacent edge of the foot board. The openings in the adjusting bar are so disposed that by engaging them with the pins *k k'* the wing can be held in any of the different positions. In order to hold the wing when operating upon short and medium grain, the adjusting bar is engaged with the front pin *k*, as represented in Figs. 3 and 4, while the adjusting bar is engaged with the rear pin *k'* when long and very long grain is operated upon as represented in Figs. 5 and 6. When the sections of the wing are folded upon each other horizontally, as represented in Fig. 6, the lower arm of the adjusting bar is folded so as to lie lengthwise behind the upper section of the wing and the upper arm of the adjusting bar stands vertically about in line with the rear edge of the elevator apron. This avoids obstructing the space in front of the elevator apron by the adjusting bar and permits very long grain to be carried from the platform apron to the elevator apron with as little resistance as possible. The pins *k k'* are provided with heads *k²* of the same size as the openings of the adjusting bar and the openings in the latter are constructed with upwardly extending notches *k³* capable of receiving the contracted necks of the pins. Upon passing an opening of the adjusting bar over the head of a pin and then dropping the adjusting bar so that the notch of the opening engages with the pin, the parts are held together. The upper end of the adjusting bar is provided with a hook or handle *k⁴* which is within convenient reach of the seat so that the wing can be shifted by the driver without leaving the seat.

L Fig. 2 represents the usual butter board which is arranged upon the front end of the

binder deck and engages against the butt ends of the grain and straightens or adjusts the same.

M Figs. 1, 2, 9, 10, and 11 represents the head adjusting board which is arranged upon the rear portion of the binder deck and engages against the heads of the grain and straightens the same preparatory to tying the grain into bundles. This head adjusting board extends nearly across the binder deck and is provided at its inner end with a rearwardly extending curved shield *m* which guides the grain toward the front side of the board *M*.

N represents a supporting plate arranged in rear of the head adjusting board and secured to the binder deck by a bolt *n*. This supporting plate is provided with an upright post *n'*, which stands at right angles to the binder deck and engages with two perforated ears *o* formed on a plate *o'* secured to the rear side of the head adjusting board, thereby pivotally supporting the latter at its inner end.

p represents a notched or serrated rim formed upon the rear portion of the supporting plate concentric with the post *n'*.

p' represents a spiral spring surrounding the post *n'* and bearing with its long front end against the rear side of the head adjusting board while its short rear end is arranged in one of the notches of the rim *p*. The spring *p'* presses the head adjusting board forwardly and causes the board to exert a constant pressure against the heads of the grain, thereby straightening the same. This pressure can be regulated by shifting the rear end of the spring *p'* from one notch in the rim *p* to another.

In order to permit the head adjusting board to operate properly in harvesting grain of different lengths this board is made adjustable toward and from the butt adjusting board, so that the position of the head adjusting board can be made to correspond with that of the platform wing, as the latter is adjusted for grain of different lengths. For this purpose the inner rear portion of the binder deck is provided with a longitudinal row of openings *q*, in any of which the bolt *n* of the supporting plate can be secured thereby permitting the latter to be shifted lengthwise on the binder deck. If desired the head adjusting board may be adjustably secured to the longitudinal bar *e'* instead of the binder deck by forming a row of openings *q'* in said bar which are adapted to receive the bolt *n* of the supporting plate *N*, as shown in Fig. 10.

By arranging the wing on the platform so as to be capable of adjustment toward and from the cutter mechanism and mounting the head adjusting board on the binder deck to permit of a corresponding adjustment toward and from the butter board, it is possible to properly harvest and bind grain of various lengths with a single machine.

I claim as my invention—

1. In a grain harvester, the combination

with the platform, of a grain adjusting wing consisting of a lower section hinged to the platform and an upper section hinged to the lower section, substantially as set forth.

5 2. In a grain harvester, the combination with the frame and the platform, of a grain adjusting wing, consisting of a lower section hinged to the platform and an upper section hinged to the lower section, and an adjusting and supporting bar connecting said upper
10 section with a support on the harvester frame, substantially as set forth.

3. In a grain harvester, the combination with the platform, and a stationary support
15 on the harvester frame provided with a pin, of a grain adjusting wing consisting of a lower section hinged to the platform and an upper section hinged to the lower section, and an adjusting bar composed of a lower arm
20 pivoted to the upper section of the wing and an upper arm hinged to the lower arm and provided with a series of openings adapted to engage with said pin, substantially as set forth.

25 4. The combination with the binder deck and the butter board, of a head adjusting board arranged upon the binder deck, a pivot on which said head adjusting board is mounted, a pivot support capable of adjustment to-
30 ward and from the butter board, and a spring carried by said pivot support and holding the head adjusting board yieldingly, whereby the head adjusting board can be adjusted bodily toward and from the butter board and is ca-
35 pable of a limited oscillatory movement on its pivot in its adjusted position, substantially as set forth.

5. The combination with the binder deck

and the butter board, of a supporting plate arranged upon the deck and capable of ad- 40 justment toward and from the butter board, a grain adjusting board pivoted upon said plate, and a spring bearing with its ends against said plate and adjusting board, substantially as set forth.

6. The combination with the binder deck 45 and the butter board, of a supporting plate capable of adjustment on the deck toward and from the butter board and provided with an upright post, a grain adjusting board pro- 50 vided with perforated ears engaging with said post and a spring surrounding said post and bearing with its ends against the supporting plate and the adjusting board, substantially as set forth.

7. The combination with the binder deck 55 provided with a longitudinal row of openings, of a grain-adjusting board provided with a supporting plate to which the board is piv- 60 oted, and an attaching bolt arranged in one of said openings and securing said plate to the binder deck, substantially as set forth.

8. The combination with the binder deck, of a grain adjusting board a supporting plate 65 secured to the deck and provided with an upright post to which said board is pivoted, and a shield secured to the pivoted end of the board and extending inwardly and rearwardly therefrom substantially as set forth.

Witness my hand this 25th day of August, 70 1892.

EDWARD PRIDMORE.

Witnesses:

WARREN FARGO,
D. W. SPENCER.