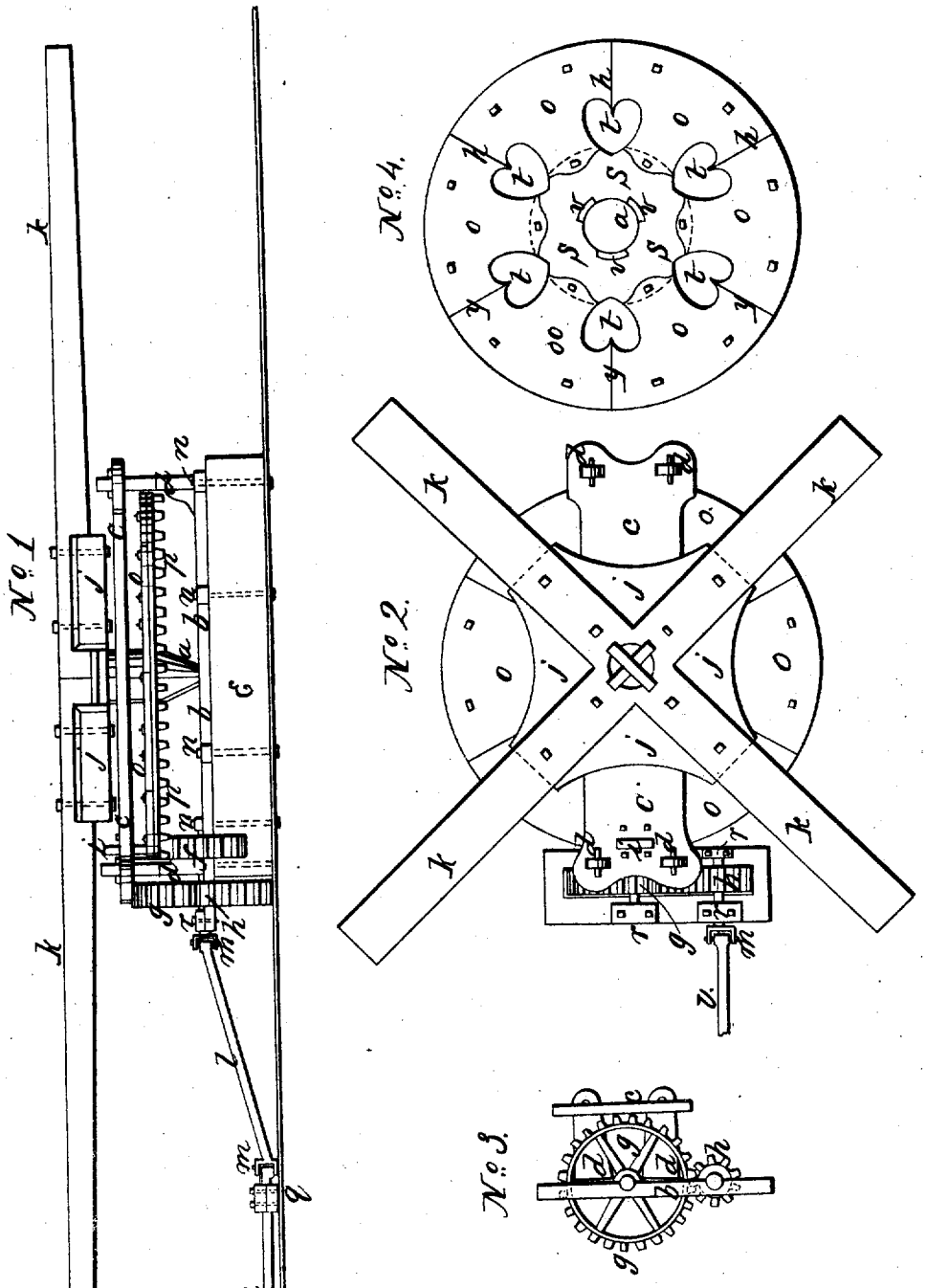
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# J. F. Axtell,

## Horse Power,

## Patented Mar. 13, 1834.




A.M. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

Mar. 13. 1834

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# Ichiel F. Aydell Geneva N.Y.

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## Letters Patent March 13. 1834.

The Schedule referred to in these Letters Patent and making part of the same Containing a description in the words of the said Ichiel F. Aydell himself of his improvement in the Mode and Manner of making "Horse Power Machines"

To all persons to whom these presents shall come. Ichiel F. Aydell of the Village of Geneva in the County of Ontario and State of New York Mechanic send greeting Be it known that I the said Ichiel F. Aydell have invented Constructed and made and applied to use a new and useful improvement in the mode and Manner of making Horse Power Machines to be attached to threshing Machines & any other Machinery called "Aydell's Cast Iron Horse Power" the whole of the same to be made of wrought or cast iron. The advantage of having the Horse Power and Machinery made of iron is to bring stronger more durable less liable to get out of order and repair more steady and regular in its operation and altho' of greater strength and power it is of less size more compact takes up less room and is more easily transported from place to place if required the advantages above recited. The small Compass of the Machine the durability of its Material the facility with which it can be moved and put in operation its great strength and the small power for which it can be obtained gives the said Horse Power a decided advantage and superiority over any other now in use The draft of the Horse Power here attached and described as Plate No. 1. 2. & 3. the following Sheet of Together with the Specification and description of the same as given below Particularly Set forth and describe the different parts of the Machine the distinct Operation and use of each part and the effect produced to be put in operation The improvement Claimed is in making the Horse Power of iron instead of wood & other materials and in the Manner in which the same is put together

Plate No. 1

Is an upright right, right hand view of the Horse Power Machine to be used and described as follows Fig. a an upright view of the Shaft to which

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h which is attached Cog Wheel c.c. and f.f. by means of a flat or flange cast
with and Connected to the Shaft as represented by ss in plate No 4. on the top of
which is a Collar represented by jj in plates Nos 1 and 2. to which is attached
the levers H.H. and Rope the Machine and represented by k.k. in plates
Nos 1 and 2. the bottom of the Shaft resting on plate b.b. and running in a Spur
supported at top by plate c.c. and regulated by keys or wedges as represented by
letters v.v.v. in plate No 4. Letter b.b. The bottom plate from one to two inch
thick and 10 inches Square Measure said plate made permanent and
supporting Shaft a. at the bottom in which plate the bottom of Shaft a. rest and
moves on a pivot when in operation. Said bottom plate being made fast to the
foundation as represented by letter E.

c.c. The top plate supporting Shaft a.
which more plainly appears in plate No 2. letter c.c. in which is a Rabbellon or
friction wheel which is represented in plates No 1 and 2 and marked letter
i. which rolling on the upper edge of Cog Wheel c.c. and f.f. regulates the mash
ing of the Cogs of the Drain Wheel into the cogs of pinion Wheel f. and the upright
post connecting plate b.b. with plate c.c. as will more plainly appear in plate No
3 letters a.a. E. the foundation on which the machine is fixed. f. the pinion
Wheel Mashing into Drain Wheel c. c. f.f. on the Shaft of which is Spur Wheel
g.g. as represented by said letter g. in Plate No 1 and 2. gg the Spur Wheel as
before mentioned attached to the Shaft of pinion Wheel f. and Mashing into pin
ion Wheel h as represented by letter h. in plate No 1 2 3. h the pinion Wheel
Mashing into Spur Wheel g. as will plainly appear in plate No 3. letter h on the
end of the Shaft of which D a universal joint connecting with line Shaft l.l.
which when moved propels the Machine. i a small friction wheel or Rabbell
running on top plate c.c. regulating the gearing of Drain Wheel c.c. and f.f.
into pinion Wheel f. ff the Collar on top of Shaft a. connected as will appear by the
top of Shaft letter a. in plate No 2. to which is attached the levers k.k. in plates No
1 and 2. k.k. the levers as before described to which the Horse is applied l.l. the
line Shafts connected by universal joints and which may lay in any angle
and Connecting the horse power with any other Machine m.m. the universa
sal joints connecting line Shafts l.l. n.n.n.n. bolt heads or nuts fastening the
Machine to its foundation through bottom plate b.b. c.c. the body of the Machine

which as will more plainly appear in plate No 2 and 4. and which may be cast whole or in segments or either attached to the shaft, or separate if cast in segments its description will plainly appear by lines y y y y y y y in plate No 4. Letters f f. the Cog Wheel cast whole or in segments and attached to the body of the Main Wheel c c. by bolts or screws and nuts. g. Coupling or box in which line shaft runs & the cap or binder confining the shaft of the machine to the boxes or place in which it runs as represented by letters r r r in plate No 2

Plate No 2

A horizontal view of the top part of the machine Letter a. the top of main shaft c c the top plate d d d d. Mortises for the upright or posts as represented by letters d d in plate No 1. e g. the Spur Wheel as more plainly appears by letters g. g. in plate No 2 & h. the pinion Wheel as will also appear by letter h. in plate No 3. i. the Mortise in top plate c. in which the traveller or pinion Wheel runs. j j j j. the Collar on top of Shaft a. on which rest the levers k k k k. k k k k. the levers fastened k collar j j j j. by bolts or screws as represented by square dots. l. the end of line Shaft. m the universal joint. o the body plate of the main Wheel cast Whole or in segments. r r r the caps or binders confining the shaft & place

Plate No 3

An upright end view of the Horse Power and Machine. Letter b the bottom plate. c the top plate, d d the upright posts or pillars. g g. the Spur Wheel Meshing into pinion Wheel h. h the pinion Wheel.

Plate No 4

A horizontal view of the top of the main Cog Wheel. Letter a. represents the manner in which the main shaft a. in plate No 1 passes through the top plate c c. in plate No 2 and regulated by keys and wedges as represented by letters a. b. b. c. c. c. c. c. the body plate of the main Wheel cast Whole or in segments the segments or divisions being represented by lines y y y y y y y. S S S the flange a plate cast solid with main shaft a Plate No 1 b. to which the body of the main Wheel is attached by bolts as represented by square dots the circular dotted line represents the bottom edge of the flange and the dotted line represents the rabbit in the flange which receives the body of the main Wheel. Letters t t t t t t. open spaces in the form of a heart or other shape more lightening metal and lessening the weight of the Wheel. b b. keys or wedges

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Confirming and Regulating Index Shafts in top plate &c. to plate No 1 and 2. yyyyyyy division of segments when body plate of Index Wheel is cast in segments Sub Space dots in plates No 2 and 4. represent bolt Heads or rivets by which the Machine is Connected together In testimony that the above is a true Specification of my said Improvement as above described I have hereto set my hand this Seventh day of May A.D. 1833 at Seneca County of Ontario and State of New York

Witness
Samuel Mott
Enoch Hastings

Elisha F Chetell

Draw

Drawing

1680 wi