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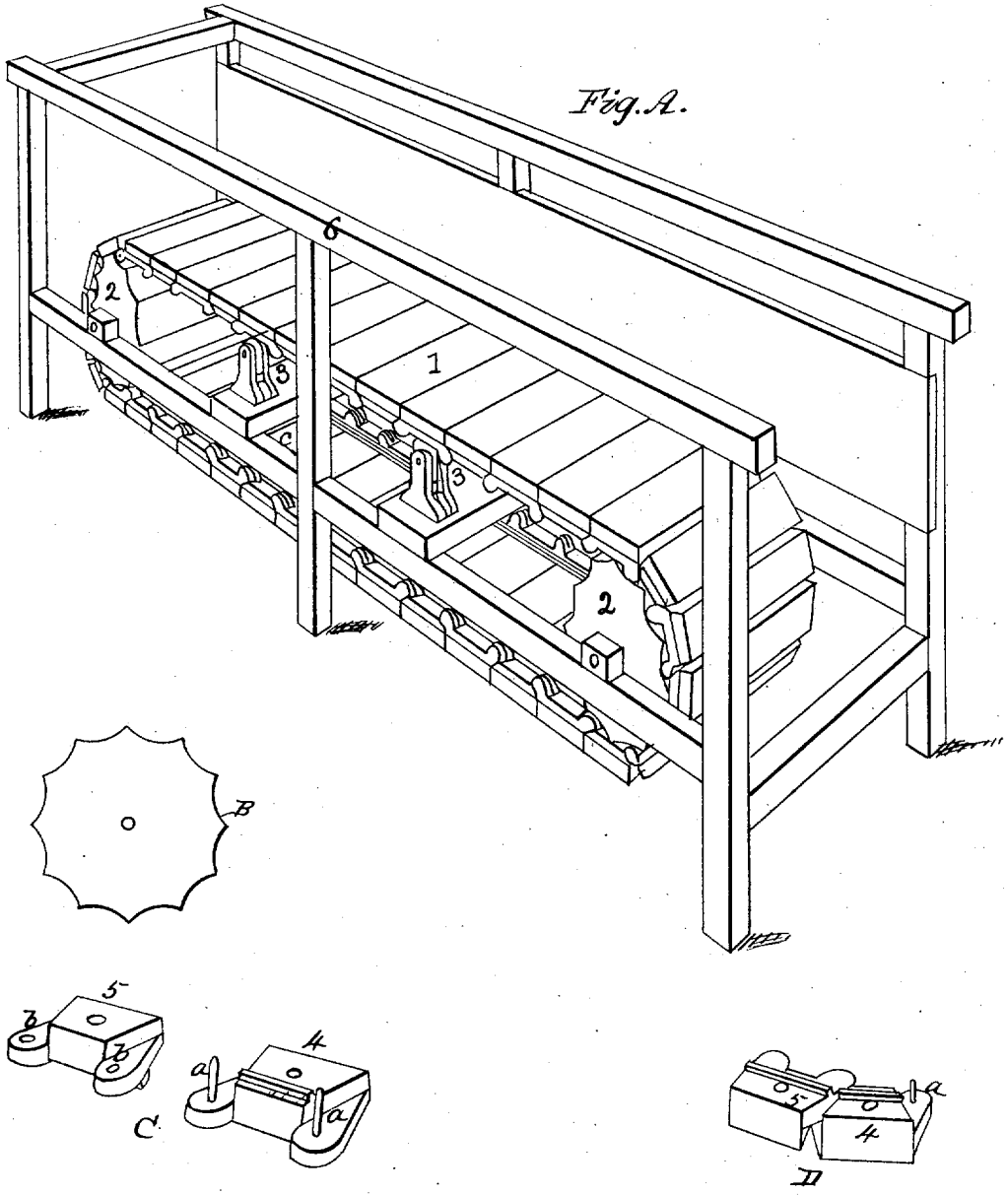
9038X

B. Wales,

Horse Power.

Patented Aug. 17, 1835.

Fig. A.



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

Aug 17 1833

Benjamin Hale's Patented Drawing

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Benjamin Hale's Specification of his improvement in the Endless Chain Horse Power

To all to whom these Presents shall Come

Be it known that I Benjamin Hale of Hallowell in the County of Kennebec and State of Maine have invented a new and useful improvement in the "Horse Power" and that the following is a full and exact description thereof. Fig 1 of the accompanying Drawings which are referred to and made a part of this description represent the whole of this Machine ready for operation and consists of a frame which has four horizontal bars nine feet long, and four cross bars two feet long, and six upright posts with mortises running the whole length of the frame. The length of the side bars give the length of the machine and the cross bars the breadth which may be varied to suit those who use the same.

Fig 1st represents the Hub in the Chain wheel which may be of wood or iron either of cast or wrought iron or a part of either and made fast to both ends of the shafts of the Chain. Fig 2d represents the two wheels over which the Chain passes which are to be made of cast iron seventeen inches inches in diameter. Fig 3d represents two small wheels six inches in diameter over which passes the Chain in the centre standing on planks running parallel with the frame of the machine, one on each side and supported in a frame. Fig 4 represents the Chain in its place, which is formed by a succession of hinge pieces connected together so as to form an endless Chain this may be of Oak iron or other suitable material. Fig 5 represents the whole length from the machine which has on its outer edge a flange piece projecting to meet and support each link of the Chain and prevent it from its proper position. Fig 6 represents two links of the Chain separately and Fig 7 represents them connected with a pin, forming a hinge piece. Fig Fig 6 & 7

represent the forming one of the links with the pins a.a. which are intended to fit to the corresponding orifices b.b. when the links are put together as in Fig 1. Fig. 5.5. of C and 3 of D. represent the form of the corresponding link with the orifices. The end of any the links may be formed with a triangular tenon or tongue with a shoulder made to fit into a mortice in the end of the corresponding link and the two connected together by the pin a. and when thus coupled make one piece of the chain in the end of the link 4. with the pins a.a. may project bearing a shoulder which meets a corresponding projection and shoulder in 5 with the orifice, the two ends of the corresponding links being halved together and fastened with the pin a. and when thus united forming one piece of the chain and so the hinge pins of the two are thus coupled until the whole chain is formed into an endless chain. Any other form is adopted in the model and drawings. When united by the halving together make a firm support for the bars when passing the chain, and when passed upon the slab above described. The number of wheels with the chain may be more or less and they are intended as well to keep the chain in its place and present obstacle as to sustain it. The chain as it passes over the wheels forms a railway as is shewn at Fig 6 of D and this railway is a part of the link of the chain and cast with it. The projecting of the links of the chain fitting into the corresponding indentures between the lips of the end wheels give motion to the wheels and the machinery attached to it and the power is communicated to machinery by means of a cog wheel or band wheel attached to the shaft or axles of the wheels 22. The pin a. in 4 of Fig. C. may be cast with the link or it may be of wrought iron and driven through both ends of the links or the two may be fastened with a screw. I claim as new and of my own invention both described modes of forming the hinge and the peculiar form of the link. I claim the forming of the end wheels with the lips or projecting & the mode of communicating power by the projections of the chain fitting into the indentures between the projections of the wheels, I also claim the mode of sustaining the chain and keeping it in its place by means of the railway and small wheels as above described.

Witnesses
J. Young Seamore

Benj[a] Hale 94 5 hds

Drawing