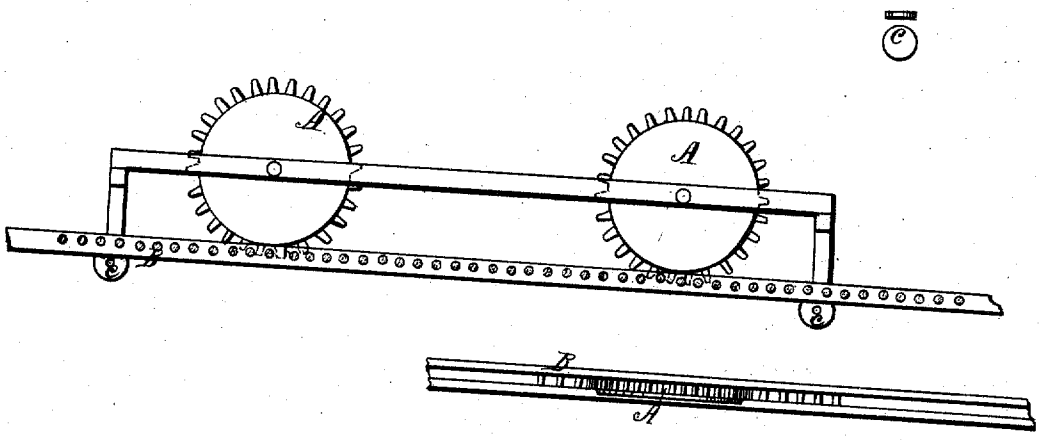
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S. Cram,

Inclined Railroad,

Patented June 11, 1836.



THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

X9710 June 11 1836 241

Smith Cram of City, County & State of New York.

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 Smith Cram himself of his improvement in the method of taking a train of cars over eminences by Locomotive Engines. —

Be it known that I Smith Cram of New York in the County of New York, and State of New York, have invented a new and useful improvement in the method of taking a train of cars over eminences by locomotion, which is described as follows, reference being had to the annexed drawings of the same making part of this specification.

The method of said Cram consists chiefly in the construction of the wheels of the locomotive to be used and the track or tracks on which it is to move, A track up the eminence is to be constructed parallel with the track on which the train of cars is to move. The tracks of the Locomotive are made in effect as the racks such as are represented at A. B. B. in the Drawings, into which teeth C. formed in and projecting from the arms or peripheries of the wheels may freely take the weight of the Locomotive being borne upon the flat part of such tracks constructed of flat bars, as far apart as the width of the teeth each bar being about one inch and a half wide and the teeth of sufficient width to have the strength in them necessary to take up the ascending or descending train when working against the teeth of the racks, which consists of round bars secured between said flat bars or otherwise.

The Locomotive being attached laterally or otherwise to the train and put in motion, takes it up or down by the action of the teeth in the wheels of the Locomotive, upon the racks constructed as aforesaid, and to prevent the Locomotive from running back when ascending or running down ahead fast when descending there are catches constructed to take

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into the teeth in said racks, or into the teeth in said wheels in any convenient manner. And the said Crane to prevent cars from being thrown off the track constructs the track so far above ground on the inside of the tracks as to prevent a wheel securely fixed to the locomotive or cars on each side thereof and near the wheels to take under the track plates, so that the Locomotive or Car cannot be thrown off without tearing up the rails or track plates.

And the said Crane to prevent the vibrating or swinging of the cars when in speed, fixes horizontal wheels to run against the inside of the rails or plates in the most convenient and proper manner.

And what the said Crane claims as his invention and desires to secure by Letters Patent, is the method of forming the racks as before specified and described for taking trains of Cars over ascents, and boats or rafts from one level to another in canal navigation

Witnesses
Wm P. Elliot
Joseph Colvin

Smith Crane

602 acres

Exd.
H.L.

(Issued June 11. 1836)

Forwarded

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Phineas Bennet of Ithaca N.Y.
(Patented Dec. 2. 1834. Re-issued July 25. 1836)
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 Phineas Bennet himself of his improvement in the Lever Saw Mill Dog for which Letters Patent were granted, dated the 2nd day of December 1834, which Letters Patent are hereby cancelled