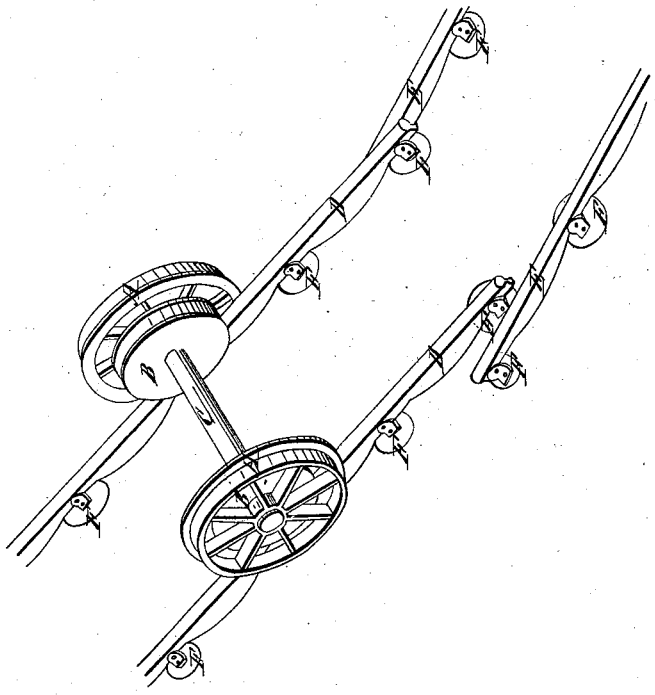
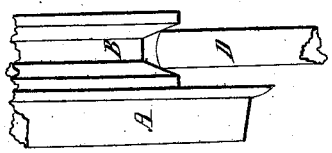
Sheet 1-2 Sheets

E. Town,

Inclined Railroad,

No. 339. Patented July 31, 1837.





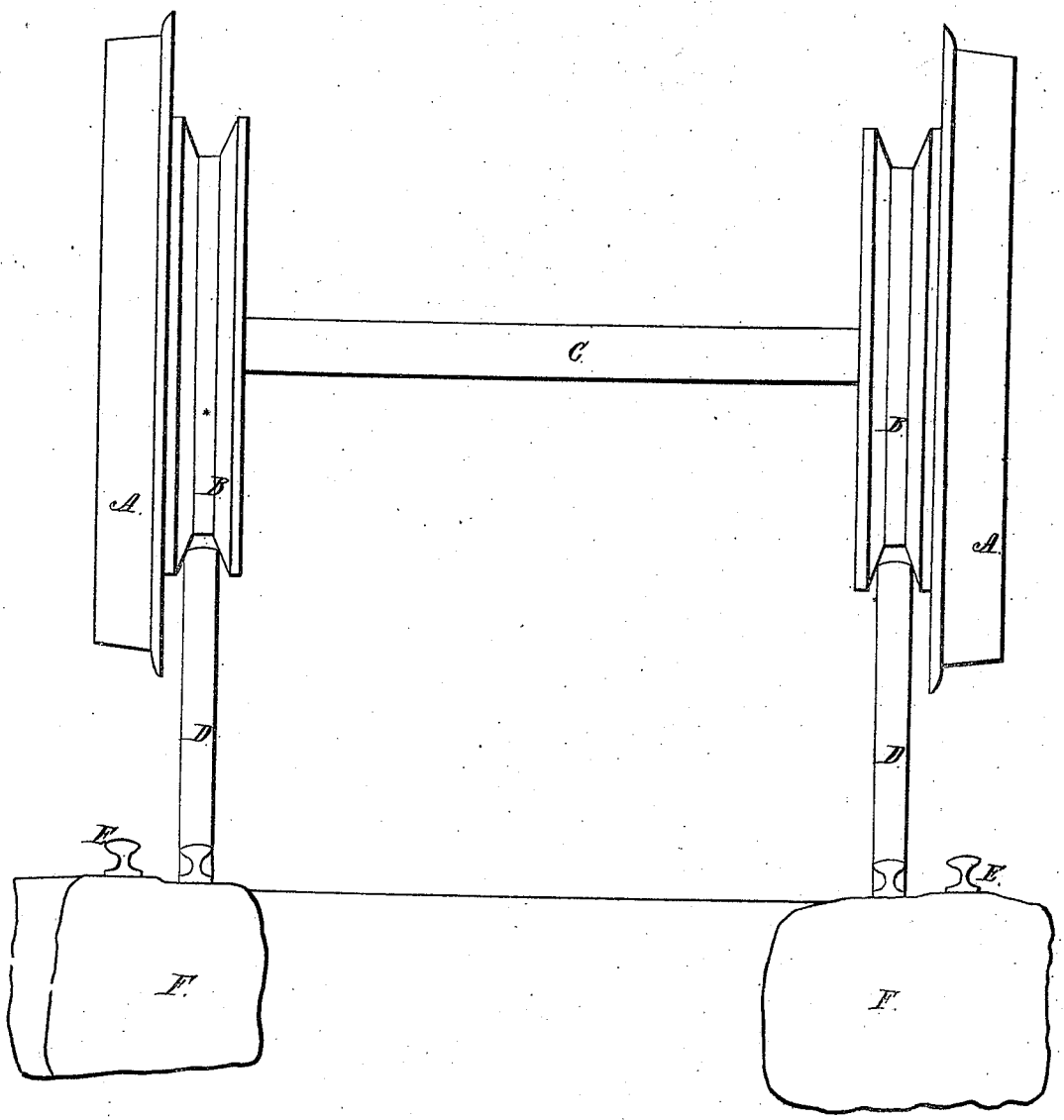
E. Town.

2 Sheets - Sheet 2.

Inclined Railroad.

No. 339.

Patented Jul. 31, 1837.



UNITED STATES PATENT OFFICE.

ELISHA TOWN, OF MONTPELIER, VERMONT.

MODE OF CONSTRUCTING THE WHEELS OF LOCOMOTIVES FOR ASCENDING INCLINED PLANES ON RAILROADS.

Specification of Letters Patent No. 339, dated July 31, 1837.

To all whom it may concern:

Be it known that I, ELISHA TOWN, of Montpelier, in the county of Washington and State of Vermont, have invented a new and improved mode of constructing the wheels to locomotive-engines used on railroads, so as to ascend and descend inclined planes without the aid of any other power than that of the engine belonging thereto to propel the same, called "Elisha Town's Improved Engine-Wheels for Inclined Planes;" and I do hereby declare that the following is a full and exact description.

The nature of my invention consists in attaching a wheel of proper dimensions, with a groove in its rim, similar to the wheels used to propel machinery by round bands, to the inside of such of the wheels to the locomotive, that run on the rails on the level road, as the power of the engine is applied to, in propelling the engine car. At the commencement of the inclined plane, the ordinary rail stops, and another, of the same shape, starts, but laid within the other, to correspond to the grooved wheels; and as the grooved wheels come on to this, it raises the other wheels from the ordinary rail, and the groove, by embracing both sides of the rail, produces sufficient friction to enable the locomotive to propel itself and a train of cars up the inclined plane.

The grooved wheel should be proportioned in size, and the bevel of the groove should vary in its inclination, to the steepness of the ascent to be overcome, and should be used only on the inclined plane. It is proposed to use the ordinary kind of rolled iron rail, hardened, to run the grooved wheels on, but cast iron or steel of a similar shape may be used.

For the cars, there should be a set of wheels with two bearings to each, with a flange in the center, between the bearings; one bearing for the level rail and the other for the inclined plane. The rails to the inclined plane must run by the ends of the horizontal rails sufficiently far to have the wheels pass properly from one set of rails to the other.

The explanation of the drawings is as follows: A, A, represents the ordinary wheel of the locomotive, running on the horizontal rail. B, B, the grooved wheel, attached to the inside of the wheel A, and which straddles the rail on the inclined plane. C, the shaft to which the wheels, A, A, and B, B, are attached. D, the rail on the inclined plane. E, the horizontal rail, and F, the stone foundations to which the rails are fastened.

The drawings show the wheels as having left the horizontal rails, and as having ascended the inclined planes some distance.

What I claim as my invention or improvement and desire to secure by Letters Patent, is—

The application of the grooved wheels to locomotives to enable them to propel themselves and a train of cars up an inclined plane.

ELISHA TOWN.

Witnesses:

ORAMEL H. SMITH,

SAMUEL WARNER.