

AMERICAN

MECHANICS' MAGAZINE:

CONTAINING

USEFUL ORIGINAL MATTER,

**ON SUBJECTS CONNECTED WITH MANUFACTURES, THE ARTS
AND SCIENCES:**

AS WELL AS SELECTIONS FROM THE MOST

Approved Domestic and Foreign Journals.

CONDUCTED BY ASSOCIATED MECHANICS.

VOL. I.

NEW-YORK.

**PUBLISHED BY JAMES V. SEAMAN, NO. 252 BROADWAY,
Opposite the Park.**

1825

William Van Norden, Printer.

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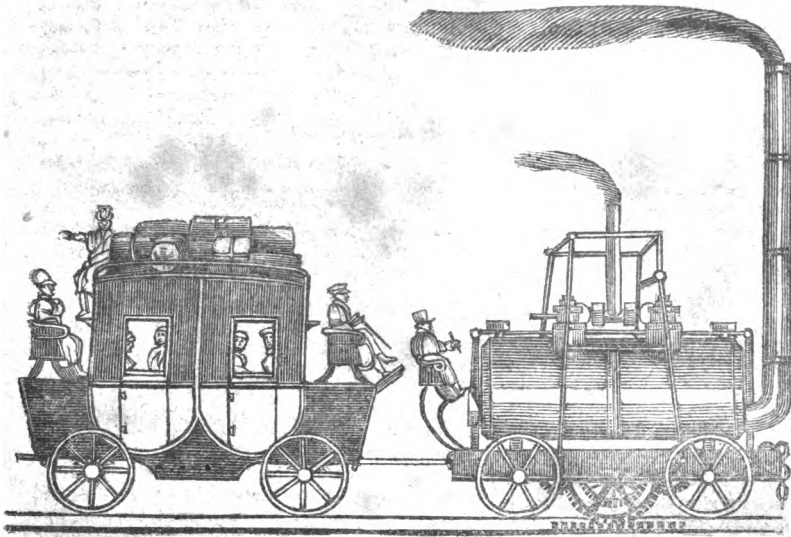
AMERICAN MECHANICS' MAGAZINE, Museum, Register, Journal and Gazette.

Come, bright Improvement! on the car of Time,
And rule the spacious world from clime to clime;
Thy handmaid Arts shall every wild explore,
Trace every wave, and culture every shore.—Campbell.

Vol. I.—No. 13.]

SATURDAY, APRIL 30, 1825.

[Price \$ 4 PER ANN.]



PROPOSITION FOR A GENERAL IRON RAIL-WAY, WITH STEAM-ENGINES, TO SUPERSEDE THE NECESSITY OF HORSES IN ALL PUBLIC VEHICLES.

Soon shall thy arm, unconquer'd Steam afar
Drag the slow barge, or drive the rapid car;
Or on wide-waving wings expanded bear
The flying chariot through the fields of air.

DARWIN.

It has been remarked, that rail-ways have hitherto been confined almost exclusively to coal works and other mines, and that inventions whose only recommendations are *simplicity* and *usefulness* are often suffered to lie long in a state of public neglect, whilst others of less real utility, being pertinaciously blazoned forth by interested or blinded partisans, are readily adopted, and bask for a while in the sunshine of public favour.

REES' ENCYCLOPÆDIA.

Vol. I.

The intention of the present scheme is to introduce a more economical and expeditious mode of conveyance than is now in use, for vehicles of every kind, whether employed in the transport of persons or merchandize. It is proposed to supersede entirely the necessity of horse power in all public wagons, stage and mail coaches, post chaises, &c. and to employ in its stead the more potent agency of steam. A careful examination of the drawings now presented to the public, as a plan of a general iron rail-way, will, it is hoped, clearly demonstrate the ease, safety, and celerity with which vehicles of every denomination, for the conveyance of goods and persons, may be propelled by mechanic power. The

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this material. we should be able to fuse or dissipate the most refractory substances in almost an instant of time; but nevertheless, such, no doubt, will be found the case, should an experiment of this nature be made on an extensive scale.

PHÆLION.

Greenwich, New-York, April
24th, 1825.

OUTLINE OF A PROJECT TO SUPPLY
THE CITY OF N W YORK
WITH WATER

SIR,—The sources of supply which I would recommend for present use, are,—First, the Bronx and Saw-mill rivers, and,—Secondly, the Croton river.

The quality of the water of the two former has been examined, and found excellent; and no doubt, from the character of the country in which it originates, the latter is equally good. To save expense, the mill privileges on these streams should be purchased only as far up from their entrance into the North and East rivers as will ensure the delivery of all the water they contain in dry seasons, at some appropriate point on the East river, just above high water mark, for the purpose of being elevated for distribution through the city.

The water ought to be conveyed in an aqueduct composed of hard burned bricks, and a mortar containing very little if any lime; for, if much lime be used, the water will dissolve it, and become hard and unfit for many domestic purposes.

Where the level is interrupted by valleys, &c., iron pipes should be substituted for masonry work, unless it would be less expensive to fill up such valleys, or extend the aqueduct across them on arches.

The aqueduct for the Saw-mill river should be led along the margin of the North river, and the straight which separates Manhattan Island from the main, till it can be united with the aqueduct from the Bronx, at or near Harlem; and in constructing these aqueducts, regard should be had to dimensions; so that an addi-

tional supply of water, equal to the wants of the city, may be admitted to them from the Croton river, at some future day

From Harlem, the aqueduct should be extended along the margin of Harlem creek and the East river, to within a convenient distance of the city, where it may be raised to a distributing reservoir either by tide water wheels (see the water wheel described in No. 8, pp. 114, 115, of this Magazine) or a steam engine.

On the route of the aqueduct one or more reservoirs should be constructed for the water to pass through, and deposit any sediment it may previously hold in suspension.

Instead of masonry work, the water may be led in an open canal; but the waste that would necessarily result from absorption and evaporation, independent of leakage, through so long a line, would operate much against such a measure besides, as it would require to be perpetually fenced and as the land through which it would pass would have to be purchased out and out, the expense, it is believed, would amount, in either case, to very nearly the same.

Under these views of the subject, the aqueduct of masonry is to be preferred; it would not cost over ten or twelve thousand dollars per mile, provided the excavation be not much interrupted by rocks and broken land; while iron pipes of twenty four or twenty six inches diameter would cost from fifty to sixty thousand dollars for the same distance.

FULTON.

New-York, April 26th, 1825.

COLOURING LEATHER.

To your correspondent Edward, I would reply, that a beautiful yellow may be obtained by using the tincture of turmeric, formed by infusing an ounce or more of the root, powdered, in a pint of spirit of wine. This may be diluted or strengthened, so as to produce a tint from the lightest straw to the most brilliant yellow.

Indian lake, infused for some days in spirit of wine, and then pouring off the tincture from the dregs, will produce a very fine crimson stain for parchment, and perhaps leather too.

J. R.