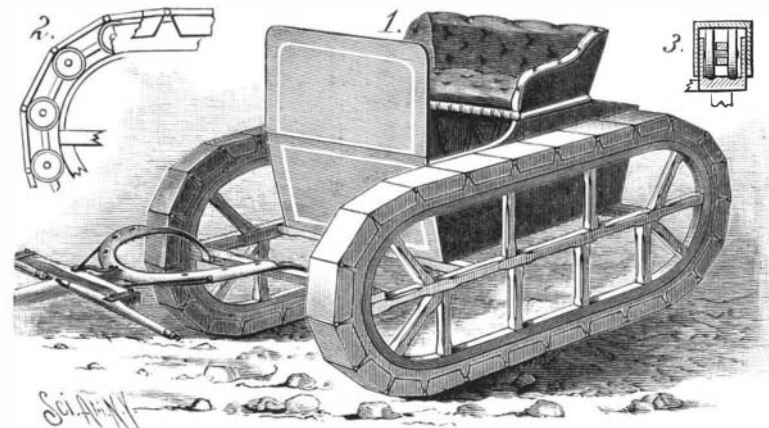


**VEHICLE.**

The object of the invention here illustrated is to obviate, as far as possible, the jolt, friction, and difficulty of propulsion inherent in that class of vehicles having for their running gear wheels and axles, to dispense with springs, and to obtain a smooth and easy movement of the vehicle. The endless tracks are composed mainly of anti-friction rollers, united by links to form an endless chain, as shown in Fig. 2. The side pieces of the body of the vehicle are oblong in form, are held parallel with each other by suitable frame-work, and are flanged to form guides for the wheels of the endless tracks, so that all danger of lateral displacement of the tracks is obviated.

The guards surrounding the wheels are made up of links of sheet metal, shaped as clearly shown in the perspective view, and hinged together to form a continuous chain to inclose the wheels. As the vehicle is drawn along the ground, the contact of the endless guards with the ground will cause the body to be drawn along the endless tracks, as it were, upon the oblong side pieces, the latter running upon the rollers. The tracks at the same time pass around the side pieces, over which they run with but little friction, thereby producing easy running, and, owing to the broad surface in contact with the ground, easy riding. This invention has been patented by Mr. Charles Dinsmore, of Warren, Pa.



**DINSMORE'S VEHICLE.**

**The Occupations of Great Men.**

The *Medical Age* has been investigating this subject, and says that the father of Demosthenes was a blacksmith; of Euripides, a dealer in vegetables; of Socrates, a mediocre sculptor; of Epicurus, a shepherd; of Virgil, an innkeeper. Columbus was the son of a wool carder; Shakespeare, of a butcher; Luther, of a miner; Cromwell, of a brewer; Sixtus V., of a swineherd; Linnæus, of a poor country minister; Franklin, of a soap boiler; Rousseau, of a watchmaker; and Murat, of an innkeeper. The writer concludes that the mothers of these men may have been the source from which their genius was derived, and, indeed, it is known that some of them were women of more than ordinary excellence.

**NEW TORPEDO BOATS.**

The increasing importance of the question of our naval defenses, now before Congress for action, gives interest to the doings of other nations in this direction. Several new vessels have, within two years past, been

**Danger of Water in Steam Pipes.**

Many are not aware of the danger that ensues when condensed water is permitted to accumulate in steam pipes, and no means provided for drawing off, by suitable opening provided with cocks arranged or located at the lowest points in a line of pipe.

The danger arises from the fact that when the steam encounters a body of cold water, there is rapid condensation, causing a vacuum, and the violent rush with which the water is then driven along the pipe

like a water hammer, against elbows or the casing of a valve, sufficient sometimes to drive a hole through the solid metal, as if it had been punched with a solid ram of steel. Connecting pipes between the boilers of a battery, a part of them having been cold for a few days, have been ruptured by opening the valves that closed the connection with the boilers under pressure of neglecting to properly drain the pipes. Men in charge of boilers have been seriously injured by neglecting these precautions. Not only valves have been ruptured, but steam pipes are sometimes split, in some cases for several feet of their length.

It has been proved beyond question that no steam fitter who neglects to provide for the easy and rapid removal of all water of condensation is fitted or competent to be trusted with the supervision of work requiring the intelligence and caution which has been shown to be necessary in laying lines of pipe for carrying steam.

There is no doubt that a reliable automatic steam trap which will drain the water off from the line will prevent these disasters; and it is the duty of persons in charge of the erection of steam lines to see that

a line of pipe can be quickly and easily drained, and, by this, the possibility of disaster is removed.—*Master Steam Fitter.*

**Novel Health Treatment.**

The variety of remedies and appliances for the treatment of maladies of every kind are not only numerous on the Continent of Europe, but some of them are very amusing. The mud baths administered at many establishments have had quite a successful run, and now a novel anti-fat cure establishment has been started in Germany, which is described by a traveler who has inspected its working:

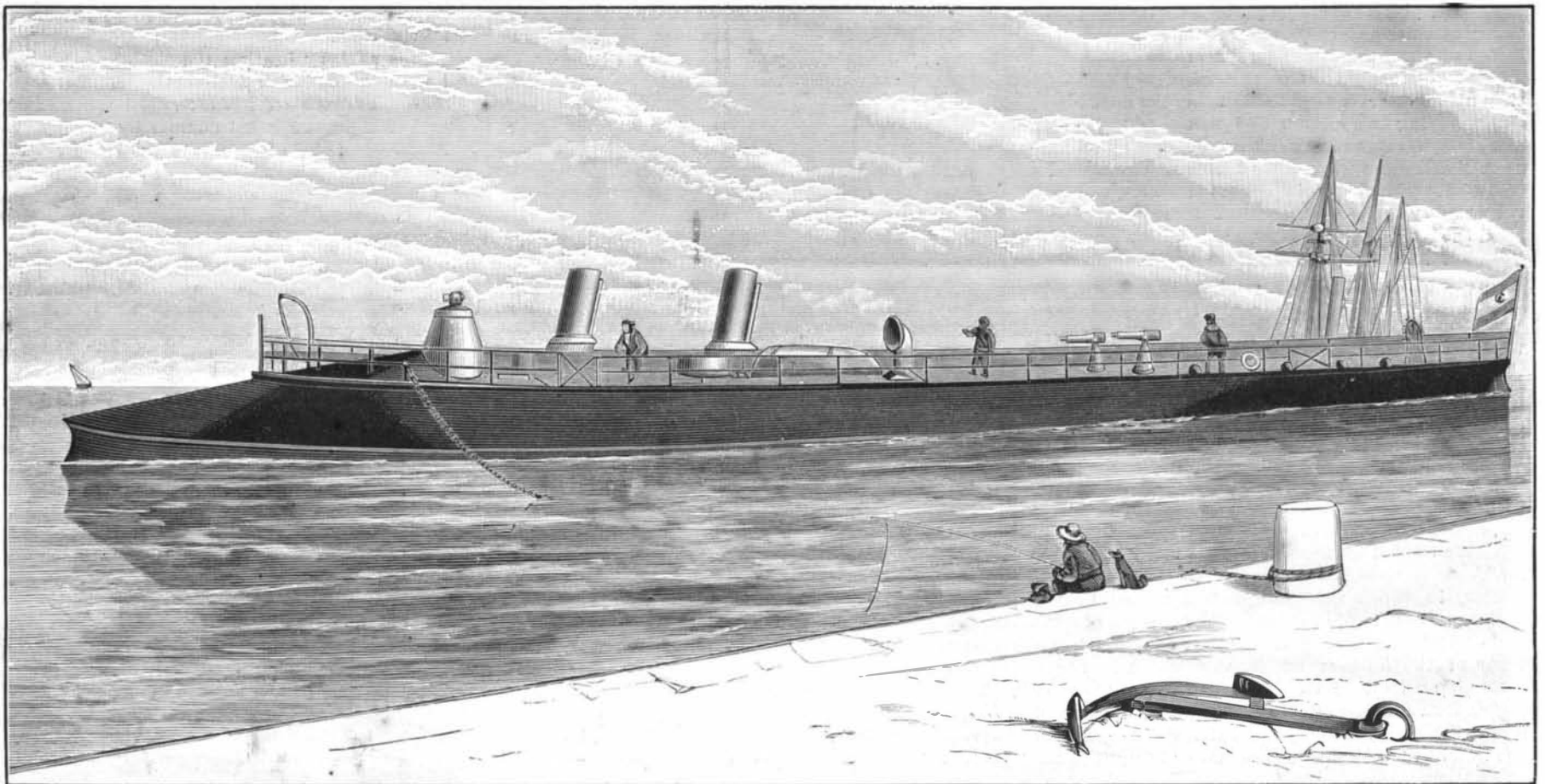
"Imagine to yourself a gentleman of aldermanic rotundity standing in a sort of treadmill and hard at work trying to mount an imaginary staircase, without ever getting above the first step, inasmuch as the upper ones are constantly receding under his weight. The physical exertion of ascending the continuously descending steps causes the unhappy climber to set in motion a system of bellows, which inhale the outer air and blow it full in his face. Instead of the common street air, however, the victim can also be made to inhale air impregnated with extract of pine and other forest trees, and oxygen, thereby procuring him, within the walls of the city, the illusion of filling

his lungs with the invigorating air of high mountains. Besides all this, the steps are so constructed as to be placed perpendicularly, if desired, in imitation of a steep mountain.

Thus the patient obtains the exercise, and at the same time inhales artificially prepared oxygen, or it may be natural air impregnated with other health-giving properties.

**Intensifying with Bromide of Copper.**

Mr. Ives, of Philadelphia, gives an improved method of intensifying with bromide of copper and silver for negatives that are used for photo-lithography and similar processes. The author contends that the present method does not give such a density as is often desired for these processes, even if one repeats the operation, or blackens it with an alkaline sulphide. With the following method, however, a much greater density is obtained by simpler means. He recommends that, after the negative has become white by the application of the bromide of copper solution, it should be thoroughly washed, and placed in a weak solution of iodide of ammonia, which will turn the negative to a yellowish green color. The negative should be again washed,



**NEW TORPEDO BOAT FOR THE SPANISH NAVY.**

added to the Spanish navy, and that government is now providing itself with a number of new torpedo boats. We here present the model of the very latest constructions of this class. They are vessels of the Austrian Falke type, constructed by Thornycroft & Co., London. Length, 147 ft.; width, 14.6 ft.; displacement, 147 tons; double screws; speed, 22 miles an hour. They have two torpedo tubes at the bow, and three repeating deck guns. Our engraving is from *La Ilustracion Espanola*.

ample means are provided for preventing the accumulation of water. Every low part or place in the line should be provided with traps or drain cocks, ample to carry off in a few minutes any water in that part of the line.

It is often found that through false notions of economy the cocks placed for draining off the water are too small, and it often happens that the man who is charged with the duty is hurried, and the work is only half done. The best economy is to arrange so that

and the silver solution applied in the usual manner. This method gives an opaque and less actinic color than with the bromide of copper solution alone.

AN order has been issued in Lower Austria forbidding manufacturers and tradesmen to sell *nickel plated cooking vessels*. It is stated that vinegar and other acid substances dissolve nickel; and that this, in portions of one-seventh of a grain, causes vomiting, and is even more poisonous than copper.