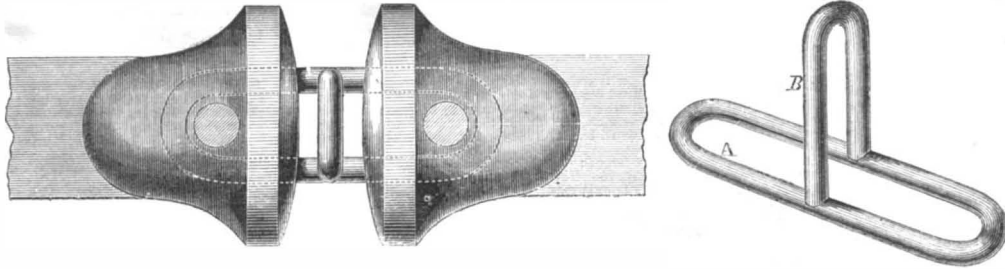


**Improved Patent Car Coupling.**

So many accidents have occurred and so many valuable lives have been lost while trains of cars were being coupled together, that it has become a matter of necessity to provide some method by which the danger can be averted. Our illustration represents such a device, and we think it is well adapted to the end sought for, viz.: safety. The coupling, A, is provided with a handle or staple, B, firmly riveted to it. The brakeman, or other person making up the train, grasps this projecting handle, and inserts the coupling between the buffers as the cars come together. By using this coupling the necessity for going between the cars is obviated, as the connection

**BARNES'S PATENT CAR COUPLING.**

can be made, if desirable, from the platform of the car itself.

The patent for this invention was procured May 13, 1862, by Henry A. Barnes, of Milwaukee, Wis., and further information can be had by addressing him at that place.

**Canadian Oil Springs.**

A recent writer in the *Toronto Globe* says:—

"The question most eagerly asked of persons just come from Enniskillen, is generally the all-important one of whether the wells are holding out or not. It is a fact that many of the flowing wells have ceased to flow; and others, while still continuing to flow, do no longer yield the immense quantities that they did at first. But then, there remains yet untouched a large area of what there is every reason to believe to be good productive oil territory. The work of drilling and sinking wells is still vigorously carried on, and a rise in the price of crude oil to \$1 or \$2 per barrel would set the drills agoing at a rate hitherto unheard of. The owners of wells which have ceased to flow do not think it worth while to drill down any further until a more remunerative demand arises for crude oil. When this takes place, every effort will be made, both by drilling further and pumping, to bring the oil up, if there is any to bring. The question whether former flowing wells will yield oil by pumping, has yet to be determined.

"Oil Springs is certainly the busiest place of its size to be seen; in fact, a perfect hive of industry, full of life and motion. The population of the whole diggings is estimated at 2,000 or more. There are still more people than can find houseroom to live in, and rents are of tiptop height. Landlords of houses appear to have taken "Excelsior" for their motto. Think of six dollars a month for the up-stairs, merely, of a frame house about 18 by 24, and three or four competitors for it at that! People continue to come in faster than houses can be built for them. The hotels and boarding-houses are crowded, and the unfortunate inmates are fairly lost for want of a place to go to in the evening, and even for seats to sit upon after supper time."

**Speed of Steamships.**

A correspondent wishes to know "The highest rate a steam vessel has accomplished?" The question is a broad one, and does not distinguish between river and sea-going steamers. It has been claimed for two or three mail steamers that, under a full head of steam and canvas, with a strong wind, they have run 18 knots. Under steam alone, 17 knots has been accomplished by ocean steamers. This is equal to 19 and 4-7th statute miles. But this has been surpassed by river boats. It has been said that 31 miles per hour have been got out of an American steamer, but we do not believe it. We have not heard on this side of the Atlantic of any boat exceeding in speed the *Rothsay Castle*, registered at Glasgow

in 1861, as of 191 feet 5 inches in length, 19 feet breadth, and 8 feet 3 inches depth, with engines of 110 horse-power. This steamboat is said to have run at the rate of 21 miles per hour, but whether she continued that speed for one whole hour, we cannot say. Perhaps our fast Gravesend boats have either exceeded or approached this speed. As we have no long rivers like those in the United States, we shall never have a class of powerful boats such as the Americans have, and as size gives speed, we cannot compete with them in this respect.—*Mitchell's Steam Shipping Gazette.*

[The fastest running of an American steamboat, for a continuous trip of 150 miles, was performed by the

*Daniel Drew* on the 13th of October, 1860, on the Hudson river, between New York and Albany. The average speed was 25 miles per hour, and an account of the trip will be found on page 277, Vol. III. (new series) of the *SCIENTIFIC AMERICAN*.—Eds.

**FIELD'S IMPROVED ICE-CREEPER.**

Every person whose occupation renders it necessary for him to be out in frosty weather must have felt the inconvenience, to say nothing of the pain, which ensues from a fall upon the icy ground. These accidents are continually occurring, and are



caused by the imperfect foot-hold of the pedestrian. It is not a little mortifying to a young gentleman to be suddenly interrupted in some good thing which he was saying to his "affianced" by feeling his person come into sudden and violent contact with the pavement. To prevent all casualties of this kind the ice-creeper here illustrated has been invented. It consists of the metal plate, A, provided with a second plate, B, having a series of corrugated teeth, a, set at right angles with its base. The ends of the plate, A, flare outwardly in order to embrace the foot properly, and have narrow slots, b, in each through which the leather straps, C, are thrust and secured. The ends of the straps, C, are provided with either buckles or strings to fasten the creeper to the foot. The small spike, c, seen in the detached creeper, enters the heel of the foot and the spring, e, prevents the

creeper from slipping forward or backward from its place.

A patent is about to issue on this invention, and further information may be had by addressing the inventor, Wm. Field, at Providence, R. I.

**FEATURES OF THE FEET.**—The French foot is meager, narrow and bony. The Spanish foot is small and elegantly curved, thanks to its Moorish blood, corresponding with the Castilian pride—"high in the instep." The Arab foot is proverbial for its high arch; "a stream can run under the hollow of his foot," is a description of its form. The foot of the Irish is flat and square. The English foot is short and fleshy. The American foot is apt to be disproportionally small.



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