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A New Era of Alloys.

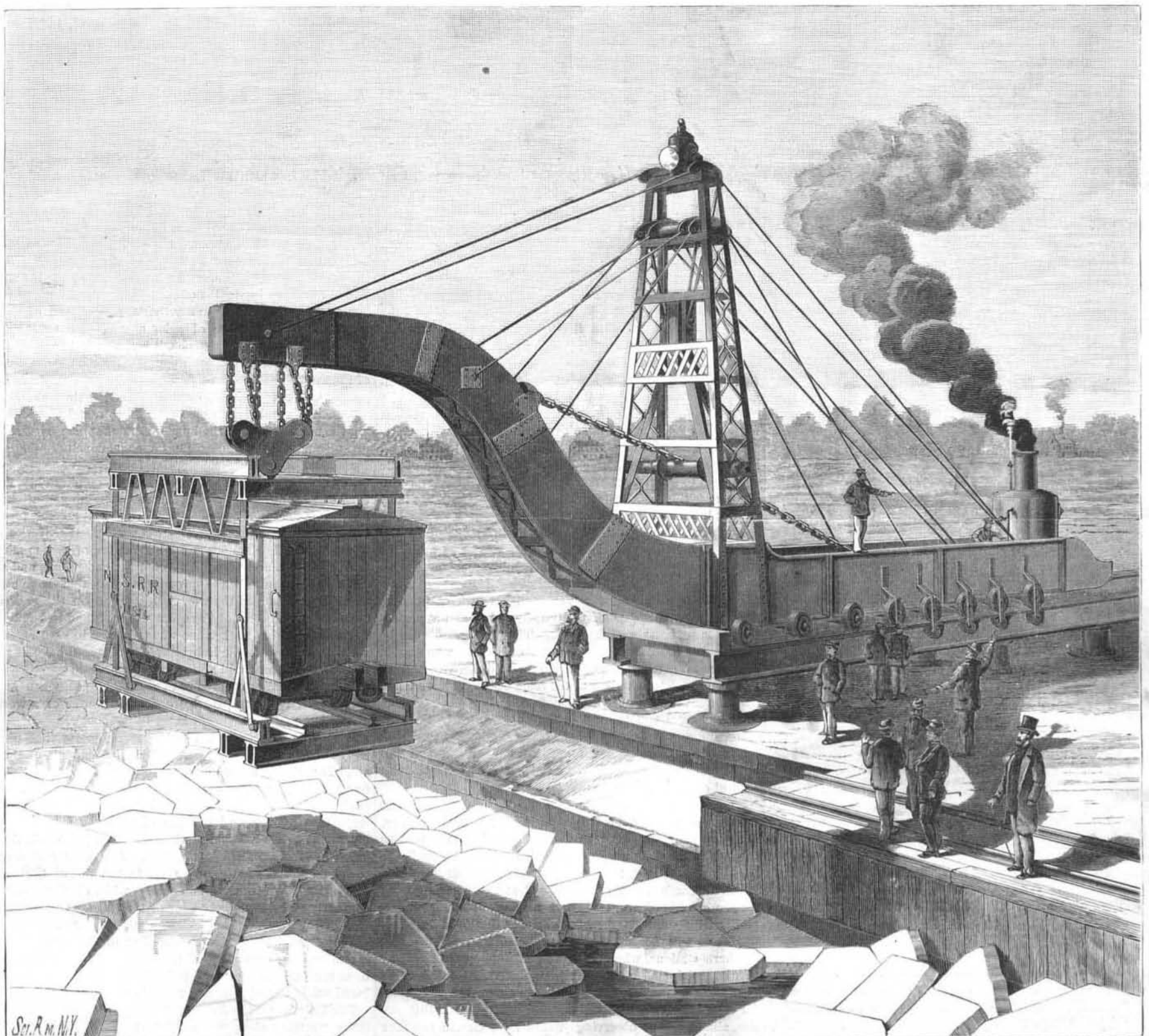
Chemistry and mechanical skill are making rapid advances in the field of metallic alloys, thus creating new resources for ornamental as well as utilitarian purposes. An instance is afforded in nickel and its alloys, which have been carried to a point that causes that metal to be preferred in numerous articles to silver, as in watches, dress buttons, ornaments, furnishing hardware, harness and carriage trimmings, superseding in the latter silver plating and brass. The difficulty occasioned by the porousness of nickel, causing oxide or rust to form by the access of the oxygen of air or sulphurous and other fumes to the inferior metals with which it is combined, has been successfully overcome, solid alloys being produced which maintain the native brightness of the metal. One most important advance is in the purification of nickel carried to a point which secures its malleability, and this by the elimination of the gases absorbed by it in the molten state. The former stationary condition of nickel in the arts was not due to the inability of chemists in the laboratory to produce with it as a base exquisite alloys, but that their processes could not be carried out on a large scale, the chemists themselves being unequal to the task of securing their treatment of the crude ma-

terial by the ton, or large open furnaces, taking it as it comes from divers sources and irregular qualities. Alloys are now produced free from cloudiness, and free from any liability to that tarnishing, corrosion, and easy abrasion to which silverware, solid and plated, is subject. These new alloys are much less affected than silver by organic acids, or the presence of sulphur or coal gas, "nickeline" or "platinine" silver not being eat into by them. Pedometers and watches and other fine, pocket instruments made of alloys having nickel for their base wear clean and bright. The discovered malleability of nickel allows of its being chased similarly to gold and silver, and with the result of greater luster, while the qualities of brilliancy, hardness, and durability, whether used solidly or in electro-plating, commend it for table wear service.—*Trade Review.*

THE *Paris Bourse* estimates the total stock of gold in the world in use as coin or as banking reserves in one shape or other at about £580,000,000, of which total England has £126,000,000, France £136,000,000, Germany £80,000,000, and the United States £92,000,000. Other nations come in for shares varying from £800,000 in the case of Holland, to £30,400,000 in Spain's.

CRANE FOR TRANSFERRING CARS.

The North Shore Railway Company (of Canada) has established a line of iron steamers to ferry cars across the St. Lawrence River at Quebec, and thus make a connection between its road and the Intercolonial Railway for through traffic. The object of the crane illustrated by the engravings is to surmount the difficulty caused by the ebb and flow of the tide when loading and unloading cars from the steamer in winter. At this season the ice accumulates so rapidly as to make the use of a swing-slip totally impracticable. With the rise of the tide the floating ice is rushed up stream, and with the ebb it is carried down. It is consequently necessary that the steamer, on which the cars are to be ferried, must approach the wharf with its bow always directed against the running tide, otherwise it would be broken away from its moorings and be in danger of being wrecked. Besides this difficulty, the ice accumulates so rapidly at the end of the wharf in very cold weather in winter that it often prevents the steamer from being fastened closer than six or seven feet from the wharf. Therefore the crane is made so as to roll out and reach the cars at low tide as well as at the extreme high tides, and at a distance
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CRANE FOR TRANSFERRING CARS TO AND FROM FERRY BOATS OF THE NORTH SHORE RAILWAY (OF CANADA) AT QUEBEC.