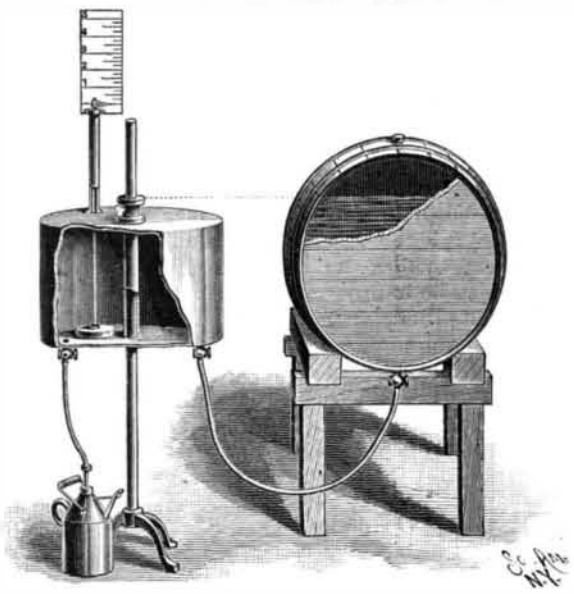
PROCTOR'S MEASURING VESSEL.

A device for conveniently drawing and measuring oil or other liquids from a barrel or tank is shown in the accompanying illustration, and has been patented by Mr. Charles W. Proctor, of Lake Forest, Ill. The tank or barrel from which the liquid is to be drawn may be placed at a distance, outside of a house or store if desired, while the measuring device is placed where most convenient, there being a flexible pipe connection, with



A LIQUID MEASURING DEVICE.

the proper faucets, between the barrel and the measuring device. The measuring vessel has a central sleeve through which passes a suitable portable post, on which the vessel is held at the desired height by means of a thumbscrew, and within the vessel is a float, an upwardly extending rod from which slides in a sleeve at the top. On the upper end of the rod is a pointer adapted to indicate gallons and subdivisions, or other measurements, on a suitably arranged scale, the graduations being relative to the cubic contents of the vessel. As liquid is admitted from the barrel or tank to the measuring vessel, the float rises, until, when the pointer on the scale shows that the desired quantity has been drawn, the faucet in the supply pipe is closed, and the measured liquid is then allowed to flow through a flexible tube to the receptacle designed to receive the measured liquid. The measuring vessel is lowered on the post as may be necessary to bring it below the level of the liquid in the tank or barrel.

McBRIDE'S OBSERVATORY SLEEPER.

Probably at no former period has traveling been more extensively indulged in for pleasure, profit, and education than at present. Our great transcontinental railroads now afford such facilities for travel that the longest journeys can be made almost entirely without fatigue, and in the most luxurious manner, the traveler being all the while presented with constantly changing views of our valleys, plains, and mountains. Every portion of the country is attractive; the great prairies have a special interest to those accustomed to the hills and dales of the East, and the scenery of the South is comparatively new to the residents of the North, and *vice versa.*

During the past few years, in order to still more largely attract tourists, cars of new and beautiful design have been made, and money has been spent lavishly in adding to the comforts of the traveling public. A car with an end observatory compartment looking backward has been very much appreciated, excepting, as sometimes happens, when another car is attached behind; and an open observatory car for the better observation of mountain scenery has met with great favor, even though it does expose the traveler to the tempest, dust, cinders, etc., and the chilling air of the glacier regions. To obviate these objections, a special form of car has been constructed, known as "McBride's observatory," shown in the accompanying illustrations.

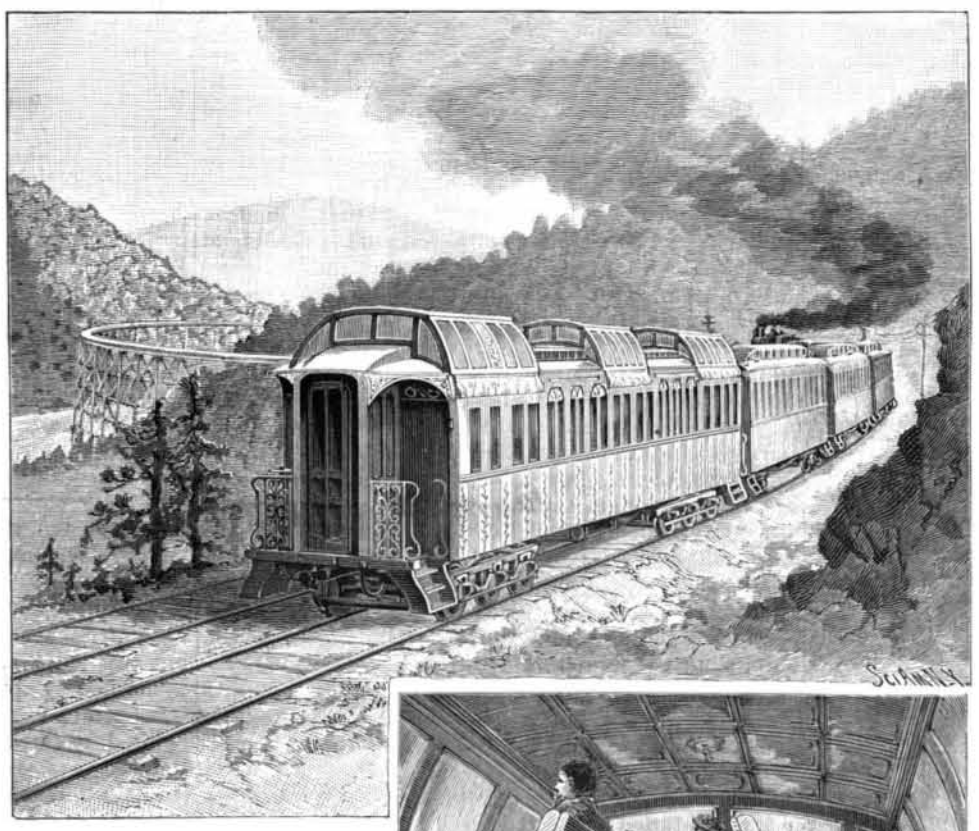
This construction also improves the lower berths by making extra head room, and adds to the seating capacity of the car without reducing the number of sleeping berths. The lower berths in the center observatory section are the most roomy, airy, and in every way the most desirable in the body of the car, while the observatory seats may be converted into upper berths, easy of access, and roomy, and always the most attractive day seats in the car.

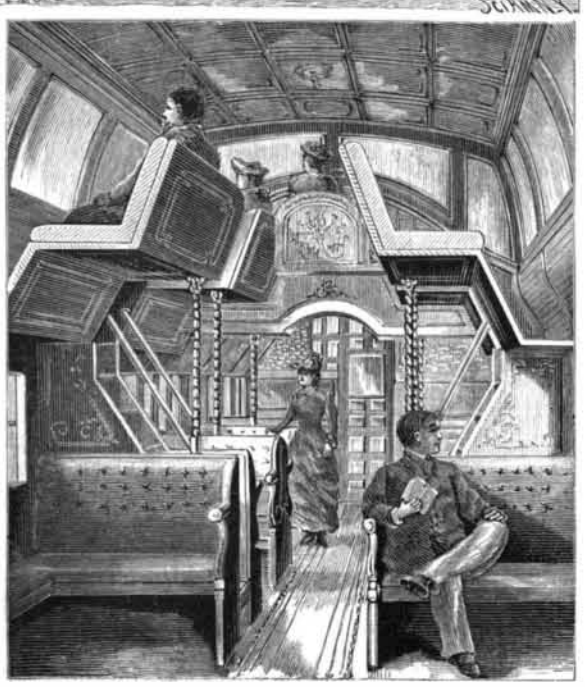
McBride's patented design applies to the whole car, the end observatories, or an observatory over the lavatories or smoking room, leaving most of the space now occupied as a smoking room for other purposes. This new observatory car is constructed so that the present make-up of a sleeper need not be impaired. Three observatory sections are used preferably on the car, so as to give the greatest number of inmates an end, as well as a side, lookout. Passengers in the center observatory get practically the same view as those at the ends, but at a different angle.

By the arrangement shown, the space occupied by the four upper center berths of the car is used as a center observatory, and in the space now occupied by those four upper berths and across their ends twelve extra observatory sittings are provided, which may be easily converted into four comfortable sleeping berths in this part of the car. Provision has been made for storing the bedding of the upper and lower berths of the observatory sections, which is even more convenient than the system now in use. The backs of the two lower center seats on each side are spaced apart, and a safe, easy stair with hand rail rises gradually from the edge of the center aisle, so as to effect a landing at the side of the car, back of the space now occupied by the upper berths. Here a seat is placed to the right and another to the left from the landing, and from which end or cross seats are reached, having their foot rests supported over and in line with the back of the seats below. The foot rests for the side and extreme end seats are placed against, or slightly over, the walls of the car, and the whole arrangement does not take from the body or inside of the car many inches more than the space usually occupied by the upper berth when folded up and out of the way.

When a traveler is seated at the side he faces a large 40 inch window, made slightly curvilinear, extending upward from the knee line to the car eaves, which will enable him to view the highest mountain peak, and to the right or left of those seats, and from the various end cross seats, a full view is had of the train top, engine, roadbed, and scenery to the right, left, front and rear. A forward balcony view is also given from the end or cross observatory seats of the lower portion of the car, and all the center aisle of the car is left clear and open from the floor to the roof.

Should any of the old Eastern roads have tunnels or bridges lower than 15 feet from the rail, Mr. McBride proposes to use only on such roads the side observatory seats, giving a side view and an end lookout over the lower portion of the train top; but for all roads having a clearance of 15 feet above the rail, and 8 feet across, at 14 feet above the rail, there will be nothing to prevent raising the observatory sections to the highest point which will ever be required, or say 18 inches higher than the ridge of the old car roof. The construction shown has been patented by Mr. T. J. McBride, Winnipeg, Manitoba, the patent also covering the location and construction of the seats, etc., which make it possible to build a car as described without raising the old central roof over 15 or 18 inches and without interfering with the main central interior part of the car as now used.

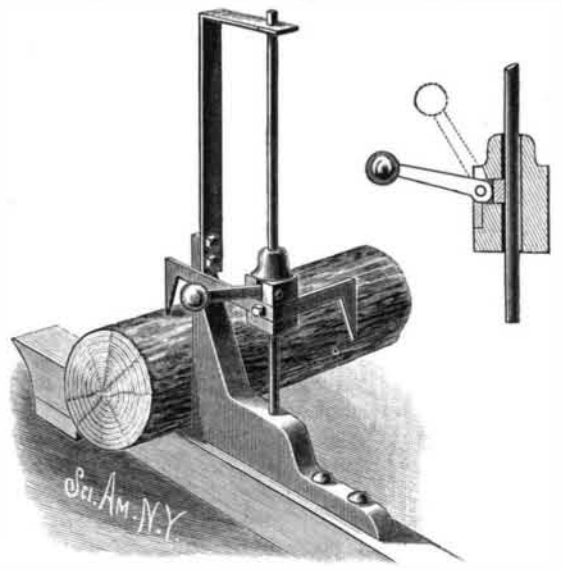




McBRIDE'S OBSERVATORY SLEEPER.

PROUTY'S SAW-MILL DOG.

The saw-mill dog shown in the cut is of very simple construction, and can be readily connected with or dis-



AN EASILY APPLIED SAW-MILL DOG

connected from the log, which it is adapted to engage near the middle on top or on the last cut. It has been patented by Mr. Wm. H. Prouty, of Worthville, N. Y. The dog proper has two arms, one slightly longer than the other, at right angles to each other. In the rear of the usual knee on the head-block is a vertical rod, whose square upper end is held in a bracket, and on the rod turns and slides a block whose lower part is square, and on two sides of which is fastened the dog. In the block is an opening in which is fitted a key whose inner surface rests against the rod, as shown in the small view, the key being pressed against on its outer side by a cam formed on the inner end of a lever fulcrumed in the block. The outer end of the lever terminates in a ball, or is weighted, so that it will normally assume a horizontal position, pressing the cam against the key, whereby the block is locked in position on the rod. To disconnect the dog from engagement with a log, the operator raises the lever, as shown in dotted lines, whereby the block is unlocked from the rod, and by pulling on the lever the block may be raised and turned as desired to use either the long or short arm of the dog. It is designed that the block, with the dog and the lever, shall be sufficiently heavy to drive the point of the dog into the log, and make a practical engagement therewith, as the lever is dropped.

Around the World for Five Cents.

A correspondent, Mr. Charles Scotte, of Epernay, France, has sent us the fac-simile of an envelope that was sent around the world for 25 centimes—5 cents. The letter was mailed at Epernay, December 19, 1890, by the regular mail for Yokohama, Japan, *via* Havre and New York. As the person to whom the letter was addressed was unknown in Yokohama, the letter was returned, reaching Epernay on March 14, having made the circuit of the world in 84 days. The post marks indicated the route and time consumed in transit. They were as follows: Epernay, December 19, 1890; Paris, December 20, 1890; New York, January 1, 1891; San Francisco, January 10; Yokohama, February 4; Hong-Kong, February 10; Marseilles, March 13; and Epernay, March 14. The letter was brought to Marseilles by the packet Saghalien. In point of speed this record is not equal to the imaginary journey of Phineas Fogg, or the real record of Nelly Bly, who did the journey in 72 days 6 hours.

ELECTRIC wands are now used in beast taming.