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A NOVEL BALANCED DOOR.

It would seem that there could be no further field for invention in so long used and commonplace a device as a door. Yet a Belgian inventor, Mr. Joseph Henri Dierickx, has recently produced a door which is a radical departure from any type heretofore used. It consists of two leaves, which are so pivoted that they will swing into partitions as the door opens, leaving an entirely clear passageway. Thus, the new doors partake of the advantages of both the hinged type and the sliding type, while avoiding their objectionable features. The common, hinged door has heretofore been considered the most satisfactory type where space allows of its use, because of the ease with which it can be swung open. It will not jam except in the unusual event of the door frame settling and thus becoming distorted. But it requires considerable space which, in many instances, cannot be spared. In street cars, for example, a door of this sort would be constantly blocked by passengers standing in the aisles and on the platforms. Then, too, if the door is not latched when closed, it will spring open at every lurch of the car, or be blown open by drafts. The sliding door, while it overcomes these objections, is nevertheless not perfect. The rollers on which it travels are too apt to slip off the track, causing the door to stick and jam. Mr. Dierickx's door is admirably adapted for street-car use, because it overcomes all the objections above noted. It is, furthermore, specially useful for freight cars, possessing the advantage that it cannot slide open under the jar of cars bumping together. The new door is formed of

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A Passenger Car Equipped with the Novel Balanced Door.

that we have always been accustomed to rectangular doors. There is no reason why a diagonal door should not be as artistically arranged as any other. It will certainly afford architects an excellent opportunity to develop new and striking designs.

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The counterbalancing feature of the door is one of the strongest points in its favor. A striking illustration of this was to be seen at the St. Louis Exposition, where a door of this type was used at the entrance of the Belgian pavilion. The door weighed 1,700 pounds, yet it could be opened by the pressure of a single finger, and it was never out of order during the entire season.

MANNING OARS AND HALYARDS AS A SUMMER OUTING. EY MAJOR L. R. GIGNILLIAT.

Something of the soldier's training has been welded into many schools. Not so with the sailor's. There are miniature West Points in almost every State, but schools modeled after Annapolis are not so easy to find. Were you to look for such a school in the most likely place, on the Atlantic or Pacific seaboard, you would seek it in vain. As a matter of fact, the only spot at present where you will find the combination of jackie and schoolboy is on an inland lake in a Western State, on Lake Maxinkuckee, at Culver, Ind. Nor is even this an all-year-round affair, but a summer school that contents itself with a brief eight weeks' session, in which man-of-war cutters play a more prominent part than classrooms; and in which the hardening of mus-



The Balanced Door Applied to a Freight Car.



The Public Baths at Brussels Fitted with the Balanced Doors.

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two triangular leaves which, when the door is closed, meet on a diagonal line of junction. The leaf which is largest at the top is pivoted at the lower corner, and the other leaf is swung from a pivot above the center of the doorway. A rod connects the two leaves in such

manner that when either one is swung in a certain direction, the other will swing in the opposite direction. Thus, in opening the door, it is not necessary to seize both leaves and move them, for if either leaf is moved into or out of its pocket, the other will automatically move in harmony with it. The two leaves are also so connected that they counterbalance each other, and they are controlled in their movements by suitably grooved guides, in which they travel with a minimum of friction. No rollers are necessary.

Aside from its use for street and railway cars, this door will be found useful for private houses, hotels, ships, etc. In fact, its uses are unlimited, for it will operate in the horizontal plane, as well as in the vertical, and may, therefore, be used for windows, transoms, and the like. The peculiar shape of the door is apt to strike one as awkward at first, but this is due mainly to the fact

A Water Tilting Match.

cles, and the getting of a healthy coat of tan, take precedence over even such things as Latin and Greek. But despite its briefness, it is a session which amply justifies itself by the wealth of refreshment it affords the tired school-boy. It commends itself also to Uncle

> Sam by reason of the interest in the navy it arouses among the Western youth, and because the training they receive should make of them good material for officers of the naval militia. In fact, the Navy Department has sent out to this little Western lake an equipment of man-of-war cutters similar to those used in the boat drills of the midshipmen at Annapolis, and has lent Hotchkiss guns and other expensive equipment.

> It is not in keeping with the hustling spirit of to-day that a boy even in summer time should spend three long months without aim or purpose, and so summer camps and other forms of organized vacations have come into existence. But it







Cutter Drill under Sail.

MANNING OARS AND HALVARDS AS A SUMMER OUTING.

"Up Masts."