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Laws for Railroads.

Railroad companies are pretty severely dealt with sometimes, and this we think has been the case with the New Jersey Railroad Company in a recent case, where a person named Kennard brought an action against the said company for damages, he having got his arm broken by having it extended out of the window of a car while passing over a bridge. It appears that the plaintiff, Mr. Kennard, whilst passing over the bridge on the road of the company, sitting with his back to the engine, with his arm out of the window, had it broken above the elbow, by coming in contact with some portion of the bridge. The bridge, it was shown, was of the ordinary width, and the company, in their defence, insisted upon the duty of passengers, when the train was in motion, keeping their arms inside, and not outside the cars; that if this had been done, no injury would have been sustained by Mr. Kennard.

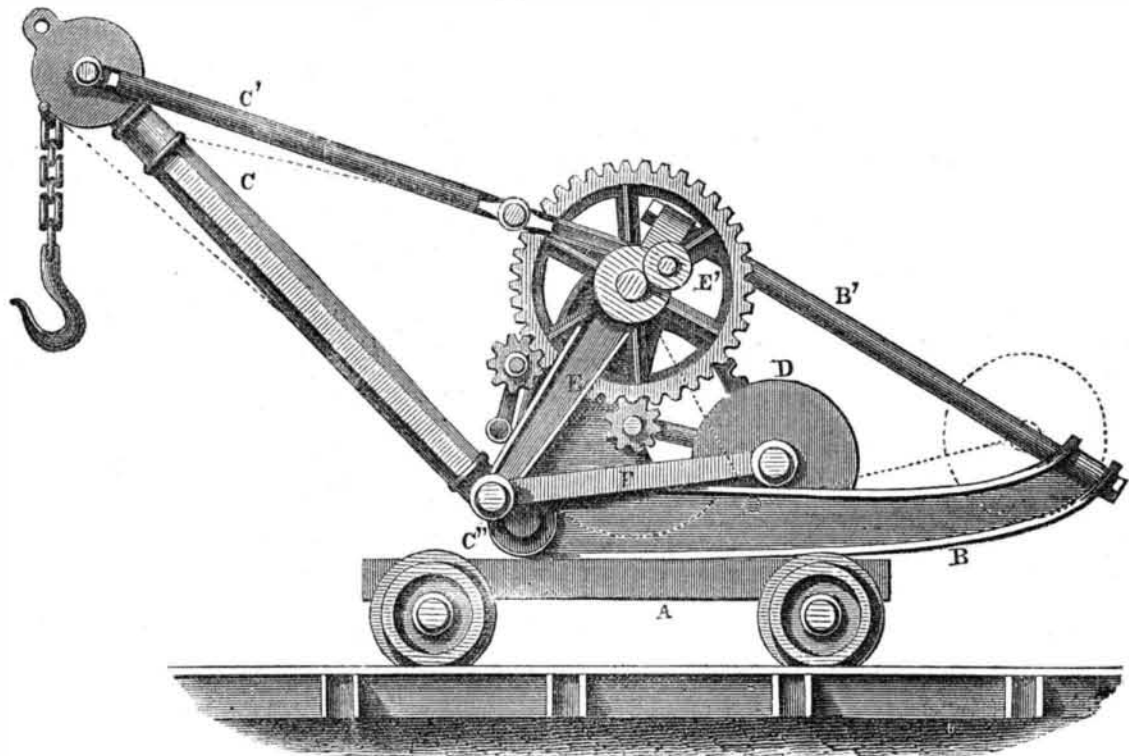
The Judge (Gibson) in his charge to the jury, asserted as law, some points which may compel railroad companies to adopt measures very annoying and inconvenient to the travelling community. The learned Judge decided that the notice in regard to keeping the arms and heads of passengers inside the cars, and all such notices, are good for nothing—that a railroad company is liable for damages, even in the event of their rules and notices being disregarded by passengers, because some may not see them, and some cannot see them, and some cannot understand the language in which they are written.

The jury rendered a verdict of \$2,500.

The Boston Railway Times has some very appropriate remarks upon the subject. It considers the charge of the Judge and the verdict rendered the reverse of common sense. Although we have thought that many of our railroad bridges were too narrow, we never could blame a company for a passenger getting his arm broke by disobeying the positive rules "do not look out of the windows."—Unless passengers obey the railroad rules of safety, how can the company take care of their lives and prevent accidents? In France they used to lock the doors to prevent accidents, and at one time a car took fire and many people were consumed because they could not force the doors. Judge Gibson, we presume, would be the last man to allow railroad companies to put chains around their passengers to keep them from moving, or to charge a jury to render a verdict against a railroad company because some *non compos mentis* person jumped out of a window when the cars were running at a high speed, and yet the above charge looks as if he would.

If we take a view of the case from another point, however, we may be ready to accord justice to the charge of the judge and righteousness to the verdict of the jury. Who has travelled by a railroad, in summer, along with a number of children, and not trembled oftentimes for their safety by the insecurity of the windows? Wire screens or stuncheons should be placed inside or outside of railroad car windows.

CRANE FOR RAILROADS.



This crane is the subject of an English patent granted to Mr. Perceval M. Parsons, C. E., London, on the 10th of May, last year. The engraving is a side elevation. It is intended to be employed upon railways, and, therefore, is mounted upon a truck or carriage, A B, one of the two sides of the crane-framing projects backward, or in the opposite direction to the jib, C, for a considerable distance, and is provided near the lower edges with flanges or ledges projecting inwards, upon which the cylindrical or rolling counter-balance weight, D, moves. These flanges are of gradually-increasing inclination as the distance increases from the centre of the pillar or point of suspension of the frame to B', one of two stay-rods or bars connecting the top of the framing with the extreme outer ends, and these take the strain caused by the moving outwards of the balance-weight, D. C' is the jib stay-rods, which take the weight or strain of the suspended weight or load. The inner ends of these rods are attached, not to the top of the side framing, but to pins, or studs, E', fixed

eccentrically to two levers, E, placed one on each side of the crane. These levers are mounted upon the ends of the barrel-shaft, and have their lower ends attached by connecting-rods, F, to the axis of the movable counter-balance weight, D. The jib, C, is jointed at its lower end to the crane-framing at C'. The action of the crane is thus—the load, or weight to be raised, being attached to the hook of the chain, the toothed gearing is put in motion, and the weight lifted. This will have the effect of causing the jib to descend slightly, and by its connection with the stay-rods and the levers, E, move those levers, and through the connecting-rods, F, move the counter-balance weight, D, outwards from the position shown. As the flanges or the framing upon which it moves, increase in inclination, the balance-weight will soon arrive in such a position as to balance the weight or load upon the end of the jib, when the maximum of weight which the crane is intended to support is applied, the balance-weight, D, will move outwards to the extreme

ends of the framing, to the position shown in the figure by dotted lines. The jib, C, stay-rods, levers, E, and connecting-rods, F, will then assume the position also shown by dotted lines, and with any weight suspended from the jib less than the maximum, the balance-weight, D, will be moved out a distance proportionate to that weight, so as to balance it and prevent any strain upon the central pillar or pivot, and the rods and levers will then assume some intermediate position in proportion to that weight. The spur gearing attached to, and working the crane, is of the description usually employed in those machines.

The improvement consists in the adaptation to the crane of a movable counter-balance weight, which is moved outwards from the point of suspension of the crane in a self-acting manner, by a weight suspended from the end of the jib; the effect of which will be to throw the strain equally upon the back and the front or jib stay-rods of the crane, and thus balance the load upon the central pillar or pivot.

Malaga Raisins.

The editor of the Rochester Advertiser, while American Consul at Tangiers, made an excursion through the South of Spain, and in the course of his jaunt passed through the country in the vicinity of Malaga, where the most delicious raisins are grown. He thus describes the very simple manner in which the choicest raisins are prepared:—

"You have often partaken of the Malaga raisins, the most delicious of all preserved fruits, and so have all our countrymen; but everyone may not know how they are prepared. The process is the most simple imaginable. As soon as the grapes begin to ripen, the vine-dressers pass through the vineyard and cut the clusters off from the vines, and leave them on the naked ground, turning them over daily, until the heat of the sun and the warmth of the earth upon which they lie, have baked and dried them, when they are gathered up, put into boxes, and are ready for use. This is all the wonder and mystery there is in preparing this delicious fruit. To my inquiry why they did not place leaves, or some clean dry substance of the kind upon the ground, for the fruit to lie upon, I was told that the naked ground was much better,

that, in fact, the fine flavor of the fruit was dependant more upon the warmth of the earth, than the more external heat of the sun. Care has to be taken, however, that the fruit does not get wet while undergoing this process. But as it seldom rains during the summer or vintage in this country, it is very rarely that the fruit has to be taken up before it is dried.

The vintage, or season for gathering the fruit, commences the middle of August. Now—in April—vine-dressers are busily engaged hoeing, digging, and hilling them up, very much as the farmers in the States do their corn, potatoes, &c. They use for the purpose hoes somewhat resembling a pick-axe, excepting that the one side has three long prongs, with which they loosen the earth very effectively. The soil generally resembles a light and sandy loam, and does not appear capable of producing scarcely any vegetation. But the grape, and olive, you know, will flourish were almost any other vegetable will starve and perish. In all that part of the south of Spain through which I travelled, from Cadiz to Malaga, Granada, &c., this same barren, sterile appearance of soil is apparent upon mountains and uplands. The general surface of the country is not merely undulating, but

mountainous—to a far greater degree than I had any idea. I do verily believe that these arid hills and mountains comprise nine-tenths of the land in the province of Andalusia, and that the fertile spots—the vegas or valleys—only constitute one-tenth. But these latter are the gardens of Spain."

Marble Cement.

The following receipt was published in volume 4, of the Scientific American, but as the receipt is a valuable one, we publish it again for the benefit of those who may not have been subscribers so long ago:—

VALUABLE RECEIPT.—Take plaster of Paris and soak it in a saturated solution of alum, then bake the two in an oven, the same as gypsum is baked, to make it plaster of Paris, after which they are ground to powder. It is then used as wanted, being mixed up with water like plaster and applied. It sets into a very hard composition capable of taking a very high polish. It may be mixed with various coloring minerals to produce a cement of any color capable of imitating marble. This is a very rare receipt, and is worth twenty dollars to many of our subscribers, any of whom can prepare it for themselves.