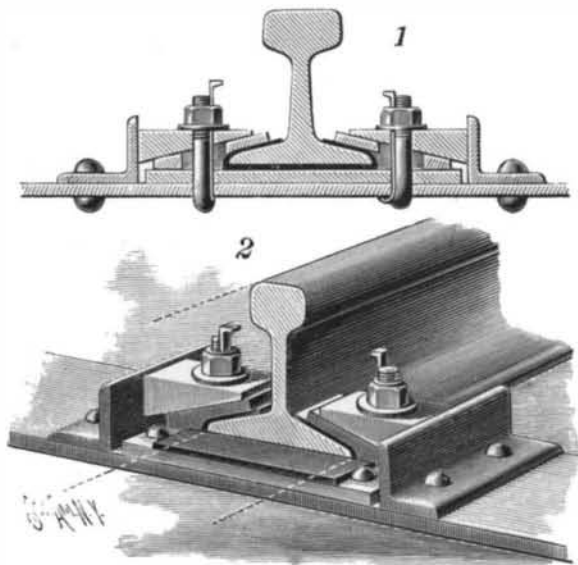


AN IMPROVED RAIL FASTENING.

A fastening with which the rail may be readily adjusted laterally and longitudinally, the bolts being placed in position from above, is represented in the accompanying illustration. It has been patented by Francis W. Wilson, and the improvement is being introduced by the New York Rail Insulation and Equipment Company, of No. 200 Market Street, Newark, N. J., manufacturers of materials for track rail insulation which have been introduced on some large bridges and viaducts, and applicable on all structures where automatic electrical signal devices are in use. Fig. 1 shows a cross section of the improved fastening, Fig. 2 being a view in perspective. On the rail plate, which rests on a metallic or other support, is a sound-deadening or insulating material on which rests the base of the rail, each flange of which is engaged by a clip having an in-



WILSON'S RAIL FASTENING.

clined surface, the sound-deadening or insulating material extending between the flange and the clip. The clip has an elongated aperture for the passage of a bolt, which also passes through an opening in an upper wedge-shaped clip whose base rests on an angle iron secured to the metallic support. The bolt has at its lower end a flange or projection, directly over which one side of the bolt is flattened, forming a pathway for a key, preferably of soft iron or steel, so that when the key is driven down at the side of the bolt the lower end of the key will be curved outward by the flange to form a retaining lip engaging the under side of the support. When the lip is thus formed, as indicated on the right of the rail in Fig. 1, the bolt is drawn up by screwing up the nut resting on a washer on the upper clip, whereby the rail clip is firmly secured in place. It is obvious that, by loosening the nut, the rail may be shifted longitudinally or laterally as desired.

IN MEXICAN CATACOMBS.

For a man who is not finical as to what becomes of his body after death, and who wants to economize in point of funeral expenses, Mexico is about as good a country in which to shuffle off this mortal coil as any. In fact, it might be considered as quite the place for a gentleman in moderate circumstances to die, for there it is possible to get a third-class interment including all the advantages of a first-rate burial, without the possibility of your friends being a bit the wiser for at least five years. This is due to a system in vogue there of disposing of the dead, and while to the frugal man it offers some inducements, like all economy it is fraught with its inconveniences. One of these is that a cheap interment means only a lease on a grave, with the corpse subject to removal at its expiration, and were most of us to die in Mexico we would rather pay a little extra and revel in the luxury of perpetual burial.

In some parts of Mexico the cemetery or panteon is inclosed with a great wall, which is nothing more or less than a huge vault, persons being buried in its sides. This wall is partitioned or compartmented off for that purpose. The graves or cells are about two feet wide, two feet high and six feet long, and are leased or sold outright to any who may have use for them. For \$25 you can rent a niche in the wall for five years, after which you must vacate for another tenant. Your bones are then thrown into a charnel house, in a heap with a lot of other old bones, unless you should have become mummified in the meanwhile, in which case you are labeled and stood up against the wall, more out of respect for your staying qualities than any deference to your person. There your friends and relatives can come and visit you. If they had any inclination to steal you, they could easily do it, as you will be found to weigh not over five pounds. However, for an extra \$25 you can get another five years' lease on your grave, and for \$100 down you can get a guarantee that your bones will never be touched.

The picture shown is the charnel house of the Panteon Municipal of the city of Guanajuato, Mexico. It is an excellent one and will give a fair idea of the grewsome catacombs which are quite common throughout that country. In the foreground are the mummies, or, to be really correct, "stiffs," as they are taken from the wall after their allotted time of burial. On their breasts can be distinctly seen the labels, telling who they are and from what niche they were removed. They are all known and called by their names when pointed out to visitors by those in charge. As can be seen in the illustration, that thoughtful-looking chap on the right was once a brilliant lawyer and a well known figure on the streets of Guanajuato.

A true story is told of a woman who, after her husband's death, married again. One day she was paying a visit to this charnel house when she recognized the mummy of her first love leaning up against the wall. She went into hysterics at the ghastly sight, and as a result of this visit No. 1 was given a continuous place in the wall.

There has been no reliable solution as yet for the cause of so many of these bodies mummifying, and as it seems to be a sort of kiln burning process that they go through, the question might present itself to the speculation of clay workers. In Mexico the sun is very hot, and it beats the livelong day on the wall of the panteon.

As the compartments containing the bodies are all hermetically sealed, this intense heat is supposed to be one of the causes in bringing about this mummified condition. Whether that is the case or not, they have certainly had a good burning when they are taken out, and it is yet to be decided whether the human clay is subject to vitrification in the right kind of a kiln.

The foregoing facts were furnished to our contemporary Brick, to which we are indebted for the loan of the cut and particulars, by the Rev. J. C. Cartwright, of the Methodist Episcopal Mission, Guanajuato, Mexico, who spent five years in that country and recently returned to Chicago for his health. Mr. Cartwright has made a deep study of Mexican life and habits.

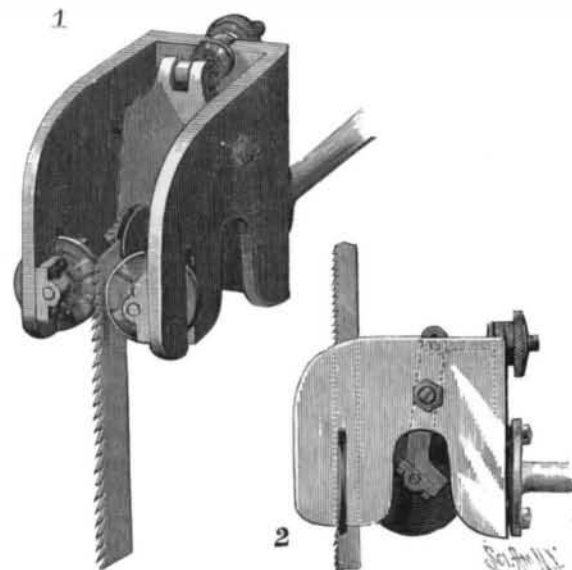
THE apparent diameter of the moon is greater in the Elorn valley (Finisterre, France), says Prometheus, than anywhere else. This is attributed to the high humidity of the air prevailing there.



CURIOUS CATACOMBS IN MEXICO.

A FRICTIONLESS BAND SAW GUIDE.

The illustration represents a band saw guide designed to be practically frictionless, and with which there can be no perceptible vibration of the saw, thus insuring a clear cut through the wood. The improvement has been patented by John A. Martin, of Morganfield, Ky. Fig. 1 shows the device in perspective, Fig. 2 being a side view. The rear end piece of the frame is attached to a shallow cone block by two set screws, and a guide wheel carrying frame has pivotal bearings on screws passed through tapped openings in the side pieces. The upper end of the guide wheel carrying frame is adjustable by a screw rotating in the back piece, and on the lower inclined end of this frame are boxings for the shaft of a grooved bearing wheel which engages the rear edge of the saw. Forward of this wheel are lateral guide or pressure disks adapted to



MARTIN'S BAND SAW GUIDE.

bear against the sides of the saw blade, and, by means of the screws in the shallow cone block, these disks may be given a small amount of lead or adjustment toward or from the base of the saw teeth, to prevent the saw from being pulled out of its pulleys when backing out of the work.

Celluloid as a Material for Splints.

In the Centralblatt fur Chirurgie, says the New York Medical Journal, Prof. Landerer and Dr. E. Kirsch mention the great drawbacks of plaster of Paris as a splint material—its weight and its proneness to become foul by absorbing sweat, urine, etc. They say that in the Medico-mechanical Institute of Stuttgart celluloid has been found an excellent substitute free from these disadvantages. A wide mouthed bottle is packed for about a quarter of its height with celluloid cut into small pieces and then filled with acetone. It is provided with an airtight stopper to guard against evaporation. From time to time it is opened and the contents are stirred with a stick. The celluloid dissolves in course of time. A plaster cast of the diseased or injured part is covered with a moderately thick layer of felt or flannel, and the celluloid solution is rubbed into this covering with the hands, which are to be protected with leather gloves. This process should be repeated from four to six times. The advantages of the celluloid splints and corsets are their lightness, hardness, stability, elasticity, and cleanliness.

From four to six times. The advantages of the celluloid splints and corsets are their lightness, hardness, stability, elasticity, and cleanliness.

A MUSTARD plaster made according to the following directions will not blister the most sensitive skin: Two teaspoonfuls of mustard, two of flour, two of ground ginger. Do not mix too dry. Place between two pieces of old muslin and apply. If it burns too much at first, lay an extra piece of muslin between it and the skin; as the skin becomes accustomed to the heat, take the extra piece of muslin away.