

instance, will be found the working drawings—most of them originals—of the early locomotives built by Edward Bury, afterward Bury, Curtis & Kennedy, for what is now known as the London and Northwestern Railway. It also includes either the original working drawings or copies of the early Great Western Railway engines; and any one who is acquainted with early English railway history will appreciate the great value of this data.

This very remarkable collection also embraces thirty-eight full size working reproductions of locomotives for road and rail covering a period from 1680 to 1848. It also includes fifteen original locomotives of the type built from 1832 to 1876.

Another notable feature in this collection is the elaborate series of drawings, showing the development of motive power from the earliest to the present time, and the very handsome display of photographs.

The locomotive models are grouped historically in the various rooms, and are standing upon specimens of the track and roadbed which were contemporaneous with the locomotives they carry. The drawings and photographs are grouped upon the walls with a similar regard for their historical order.

We present two photographic views of the interior of this section of the museum which are characteristic of the general excellence of the exhibit. They both represent full sized models of the original locomotives and the system of track which was in use at the time they were built. The engraving also shows a portion of the valuable collection of drawings and photographs which is disposed upon the walls of the exhibition rooms.

Apart from its interest to the curious and casual sightseer, this exhibit has a special value to the historian. Whoever may have occasion to write upon the too much neglected subject of locomotive history will find a rich treasure house of authentic relics in this collection. We are gratified to note that there is evidence of a widespread and growing interest in the general question of railway and, especially, locomotive history, and we think that the present time will be opportune to put before our readers a series of articles by Mr. H. T. Walker, on the history of the American locomotive. The first of these articles will appear in the next issue of the SCIENTIFIC AMERICAN, and they will be continued in the two succeeding issues. They will be profusely illustrated with line drawings and photographic reproductions of the most famous engines in the Field Columbian Museum exhibit, the photographs being taken in the halls of the museum by the courtesy of the director, Mr. F. J. V. Skiff, to whom we are indebted for much detailed information regarding the history and present standing of the museum.

The Birthplace of Buddha.

All students of ancient Indian history, says the Pioneer, and all followers of Buddha are indebted to the present enlightened government of Nepal for the discovery of the actual spot of the long-lost birthplace of Buddha Sakya-Muni. On representations made by the government of India, the Nepalese Prime Minister granted permission to the Archaeological Surveyor of the Northwest Provinces to visit the Nepal Terai this winter in order to explore the country for a distance ten miles to the northwest of Mauza Nigliva, where now stands Konagamna, Buddha's Nirvana-stupa, and Asoka's monolith recording that fact. General Khadga Shamsher, Governor of Palpa, was instructed to meet Dr. Fahrer at Nigliva and to receive suggestions from him regarding the contemplated excavations among the ruins at this spot.

By a lucky chance, the meeting could not take place at Nigliva, but came about instead about fifteen miles to the northeast at Mauza Paderiya, near the tahsil of Bhagwanpur in the zillah of Butaul, close to the general's camp. Here, near the debris of several ruined stupas, stood one of Asoka's monoliths, rising about ten feet above the level of the surrounding ruins and covered with several pilgrims' records, of which one belongs to about the ninth century. The archaeologist's attention was at once caught by this, and the pillar was unearthed to the depth of another fourteen feet, when a well-preserved inscription of the great Emperor Peyadassi or Asoka was found about three feet below the former level of the ruins. In this inscription Asoka states that, after having been anointed twenty years (about B. C. 239), he came himself to the garden of Lumbini, worshiped, and erected several stupas and this column on the very spot where Lord Buddha was born, in order to commemorate this happy event for future generations.

About eighteen miles northwest of this column lie vast ruins of stupas, monasteries, and palaces covered with forest and stretching in a straight line of about five miles from the village of Amouli to Tilaura Kot on the Banganga River, the circumference being about seven miles. This is the ancient site of Kapilavastu, the capital of Suddhodana, Buddha's father. The whole place is as dreary and desolate as when seen by Fa-Hian and Hiuen Tsiang in the fourth and sixth centuries A. D. The Nepalese durbar had permitted a thorough excavation of these vast ruins during this

winter, but as the famine is worse in the Nepal Terai than in the adjoining British districts, General Khadga Shamsher thought it wiser and safer not to collect a great number of workmen on one spot for several months, and has promised to have the excavations carried out by his sappers and miners next winter. We may confidently expect great results from this exploration, as undoubtedly pre-Asoka inscriptions will be turned up on the spot.

A VELOCIPEDE SHOWER BATH.

At the recent cycle show in Paris, a prominent English bicycle manufacturer presented a novelty called a "Vélo-Douche," which is an eminently practical device for combining exercise and the morning ablutions. Many wheelmen have doubtless often desired to obtain a shower bath after violent exercising on the wheel, so as to obtain the sedative effect of the brisk reaction.

Many bicycle and athletic clubs are provided with every facility for obtaining this end, but such means are not always at the disposal of the rider, especially in the country.

The device which we illustrate is really a combination of the home exerciser and shower bath, and it enables the rider to obtain any amount of exercise desired with or without the bath. The machine consists of a shallow tub to which is secured a framework carrying a bicycle saddle, a handle bar, pedals, sprocket wheels and chain. The resemblances to the bicycle go no further. The small sprocket wheel which is driven from the large sprocket on the main shaft by the medium of a chain is secured to a small rotary pump which is fastened at the rear of the frame. The suction pipe



A VELOCIPEDE SHOWER BATH.

of the pump ends near the bottom of the tub and the discharge pipe is curved as shown in the engraving and ends in the sprinkler arrangement common to all shower baths. A cock half way up the discharge pipe permits of the water being turned on to the sprinkler or through the hose and nozzle, depending on whether a bath is desired or not.

It is, of course, perfectly possible to obtain the exercise without getting wet, the pump furnishing the resistance necessary for the exercise and the water which is pumped being discharged by means of the rubber tube and nozzle. When the rider has exercised sufficiently, he can reach backward and turn the cock so as to let the water pass upward and out of the sprinkler. The harder he pedals, the larger the stream.

It is possible to direct a stream of water on any part of the body by means of the nozzle connected with the rubber tube. The tub can be divided into two compartments, one containing hot water and the other cold water, and the cold and hot douche may then be used at will. The device could be made to set in any ordinary bath tub. It would seem that the "Vélo-Douche" has a future for use in the cycle clubs, riding academies, sanitariums and in the army.

THE price of a regular full weight motor carriage in France is \$1,000. Bollée's light carriages sell for \$500 and the motor tricycles made by Dion & Bouton cost \$320 each. These prices are considered too high in France. Another obstacle to the development of the motor carriage industry is the threatened collection by some French towns of an "octroi" or local duty on the kerosene or the like carried by all motor carriages entering the city limits.—Revue Geographique Internationale.

Archæological News.

A mosaic map of Palestine thirty feet long by fifteen broad has been discovered at a village between Salt and Kerak, east of the Jordan. The pavement is believed to belong to the fifth century after Christ.

A bronze figure just discovered in the Amsterdam Museum is believed by the director to be by Michelangelo. It represents King David dancing naked before the ark. Such attributions in Michelangelo's case should be received with extreme caution.

From Greece comes the news of the discovery on the island of Salamis of stones inscribed with epitaphs composed by the celebrated poet Simonides for the tomb of the Corinthians who lost their lives in the great battle of Salamis. With the assistance of the indications contained in the epitaph, a diligent search is now being pursued for the discovery of the tombs of the Corinthians who played a leading part in that historic contest.

Excavations at Athens.—After long delay, owing to the difficulty of buying land in this thickly populated part of the city, Dr. Dörpfeld has resumed his excavations near the Theseion, says The Builder. Another house in the Poseidon Street has been bought and pulled down, and beneath it the south wall of the building he conjectures to be the Stoa Basileios has been laid bare. This building is now seen to consist of a hall nearly square in shape, nine meters in breadth. Its east side has a portico, and from the dowel marks in the stylobate of this portico it is clear that it had six columns. The plan is obviously such as we are accustomed to associate with a small temple, but against this view and in favor of the Stoa Basileios identification are two main arguments. First, the square-shaped hall has in its north wall a small door, a thing unprecedented so far in a Greek temple, and secondly, though this argument is, of course, less strong, topographical considerations are against it. Dr. Dörpfeld himself still clings to the view that the building is the Stoa. The masonry points to the end of the sixth or beginning of the fifth century, and for this date the size of the building is adequate for the official seat of the Archon Basileus. Further, there is a basis set against the back wall that would serve well as the foundation of the altar, which must have stood in the Stoa. South of the building a broad stairway leads up to the Theseion. We hope some more decisive evidence may come to light, as the identification is of great topographical importance.

How Tomatoes are Preserved in Italy.

In every house and cottage the preserving of tomatoes is carried on. Terraces, balconies, and even the flat roofs of the houses are half covered with plates containing the deep-red substance. After gathering, the tomatoes intended for preserving are spread out for some hours in the sun till the skin has somewhat shrunk. They are then passed through a sieve so that they may be freed both from seeds and skins. As they contain a large proportion of water, the substance which has been passed through the sieve must be hung in bags, from which the water exudes, and soon a pool of dirty-looking water is formed beneath each bag. Strange to say, it is in no way tinged with red. The mixture which remains in the bags has the consistency of a very thick paste. It is then salted, the proportion being a little less than an ounce of salt to a pound of preserve. The process now requires that it should be spread on flat plates, exposed to the sun, and stirred from time to time with a wooden spoon, so that the upper part may not form a crust, while underneath it remains soft. It is a picturesque sight when the women are to be seen flitting about on their roofs and terraces, attending to their deep-red preserve, their colored handkerchiefs flung on their heads to screen them from the rays of the burning sun when it is at its fiercest. In the evening the contents of the various plates are taken in and stirred up together, for if moistened by the night dew the whole would be spoiled. After being exposed to the sun for seven or eight days, the same process being repeated each day, the preserve is finished and placed in jars for winter use.

Though it is used by all classes of persons, it is more necessary to the poor than to the rich, for the latter can make use of the fresh tomatoes preserved in tins. Tomatoes may be tinned whole, as we know from those usually imported into England from America. But in Italy the fruit is usually passed through a sieve, the pulp being then placed in tins, which are immediately soldered down, and then put in boiling water for five minutes. The original flavor is thus retained. The cost of a small tin is half a franc. So it is, as a rule, beyond the means of the poor. The price of the preserve is seldom more than sixteen cents a pound, and a little of it goes very far; but those who are thrifty take care to make it for themselves, the cost then being absolutely insignificant. It is chiefly used by them for flavoring their macaroni in the winter; in fact, there are very few dishes which are not improved by a little tomato preserve, and it finds favor in all classes.—Chambers's Journal.