

THE STATUE OF CHRISTOPHER COLUMBUS AT BARCELONA, SPAIN.

On Friday, October 12, 1492, the land of the western hemisphere was first sighted from the fleet of Columbus. The night before, Columbus had discerned a light, and in the award of the gift of money and other favors by the crown of Spain to him who first saw land, the prize was adjudged to belong to the great admiral. In a few years the fourth centennial of the discovery of America will be at hand. America, Italy, and Spain may then join in the celebration of the deed of the great Italian sailor.

On April 3, 1493, Columbus embarked from Barcelona to carry to the monarchs of the world the news of his achievement. This city, one of the most active and enterprising in Spain, has been unwilling to lose even this small share in the glory of Columbus. In his second voyage, the admiral was accompanied by a number of Catalonians, the Treasurer Santangel, *El Capitano* Margarit, Fra Bernardo Boyl, first patriarch of the Indies, and twelve missionaries from Monserrat. These too the City of Earls, as Barcelona has been entitled, does not desire to leave unremembered. The city erects, therefore, a magnificent memorial to Columbus and the Catalonians who assisted him. It includes a memorial landing* and a colossal statue. The latter we here illustrate. For it we are indebted to our contemporary, *La Ilustracion*. We may first say a few words of the memorial landing.

In September, 1881, a national competition for designs for a memorial to Columbus was opened under the auspices of the city of Barcelona. The central executive unanimously accepted the plans of the architect Don Cayetano Buigas Monraba. A great plaza on the water's edge is provided with several flights of wide steps descending to the sea. Toward each side of the terrace are carried out two extensions, in the somewhat conventional shape of bows of vessels of the fifteenth century, designed to recall the two undecked caravels of the original fleet, the Pinta and Nina. By balustrades of rich design, and by statuary, the landing is still further ornamented, and it is flanked by two lights upon advanced points.

The statue of Columbus is also by a Spanish artist, D. Rafael Atché. It is of colossal size, being 20 feet in altitude. The spirited engraving gives a good idea of the vigor and animation of the design. With intent and piercing gaze, the discoverer can be imagined pointing into the

West, the goal of his pilgrimage, and toward the land of whose existence he had so little idea. The figure carries with it the idea of a human being through all the drapery encircling it. This alone is a tribute to its excellence, as such figures so often appear but sculptured clothing. But here it is not too much to say that through all the accessories the representation of the living, breathing life of the man is discernible, and we can conjure to ourselves that the distant light on the American island is pictured on his retina and telling him that the end of his voyage is near.

IN a communication to *L'Electricien*, Captain F. Pescetto points out that a copper lightning conductor will protect a larger area than an iron one of equal resistance will do, since the self-induction of iron is very much greater than that of copper.

* See SCIENTIFIC AMERICAN SUPPLEMENT, No. 401.

Gait of Criminals.

A curious study has been made by Dr. Peracchia of the differences between criminals and law-abiding citizens as exhibited by their walk (*La Riforma Medica*, No. 147, 1887). The author first made a number of observations to determine the conditions of normal progression, and found that in good people the right pace is longer than the left, the lateral separation of the right foot from the median line is less than that of the left, and the angle of deviation of the axis of the foot from a straight line is greater on the right side than on the left. But this is not all. Dr. Peracchia has not only shown us how we may distinguish criminals in general, but has laid the beginnings of the differential diagnosis between various sorts of evil-doers. The following are

American Mechanics.

The following is an extract from an article by Prof. Dieffenbach, in illustration of what he acknowledges to be a fact—that American mechanics placed side by side with European artisans, the former show in a very short time their superiority. It is a manly confession of what is very generally known by every impartial observer. We give the extract in the Professor's own words: "More surprising still is the influence of North America upon handicrafts, and especially on the whole domain of mechanical technology. Here there is still a very wide difference between Germany and the United States. While our chemical technology has been distinguished by extraordinary advances, in consequence of which our chemical manufactures have

recently conquered a multitude of new markets, our mechanical technology has not developed at the same rate. What an American workman is able to accomplish by means of these tools may be seen by an example.

"The writer of this article spent a portion of 1878 and 1879 in Leipzig, where he became acquainted with a manufacturer of boots and shoes. One day an American applied for work. He stated that he had come to Germany on account of his son, who had a talent for music, and whom he wished to have educated at the conservatory. He said he was looking for work in order to pay his son's expenses, and he desired to use the tools that he had brought over from America. The manufacturer agreed. Now, the American appeared at his place daily, looked neither to the right nor to the left, but attended to his work to the last stroke of the bell. The manufacturer soon noticed that he had obtained a man fully equal to the German hands in thoroughness and skill, and capable of turning out three or four times as much as any other, thanks to his exemplary diligence and his American tools. Wages being paid by the piece, the man earned more than enough to support himself and his son."

Doing Repairs in a Hurry.

The *Manufacturers' Gazette* is quite right in its assertion that lack of judgment causes more trouble in a machine shop than anything else. It is liable at all times to make trouble for the workman, the foreman, and the customer alike. This is particularly noticeable on repair work which comes in a hurry and is wanted in a bigger hurry. There is no time for the foreman to think what is best to do under the circumstances.

The customer comes with the job and wants to take it right back again, no matter if the services of moulder, forger, and machinist combined are required. He asks Mr. Foreman how soon the job will be finished, and probably induces the foreman to cut the time down one-half. The customer is back when the stipulated time arrives, if not before, and stays until the job is done, follows him all over the shop, hangs over the job, makes the workmen fidgety asking questions and making suggestions, besides having the foreman chase up the workmen. He finally gets the job done, and thanks his stars that he stayed at the shop, for he is sure that if he had not, the job would have taken twice as long.

The result of such personal overseeing is, in nine cases out of ten, that the job has taken at least twenty-five per cent more time, because the majority of machinists get nervous while a stranger is standing watching them, and lose their head, and the consequence is not only time, but quality of workmanship, is lost.



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the distinguishing characteristics which his observations have enabled him to formulate:

1. *Thieves*.—In those who are predisposed to appropriate the property of others, there is a pronounced widening of the base of support, together with a very long step.

2. *Assassins*.—In those who have murder in their hearts, the base of support is not as wide as it is in thieves, since the angle formed by the axis of the foot with the median line is less obtuse, but the sinistrality betrayed by their footprints is very marked.

These discoveries are of a very interesting character, and the *American Analyst* suggests that if the criminal could be induced to walk before the honest man, instead of following him as he usually does, they might also be put to a practical use, for then good citizens could diagnose the rogue by his tracks, and might thus be enabled to escape robbery or assassination, as the case might be.