CRISTOBAL COLON DE LA CERDA, DUKE OF VERAGUA, MARQUIS OF JAMAICA.

(*Continued from page 244.*)

Committee of the Centennial, and afterward Vice-President of the Board of Directors of said Centennial; but he refused both of these honors on account of the delicate state of his health, which we sincerely hope he may recover.

As a matter of curiosity at the present historical moment, we give below the genealogy of the Dukes of Veragua, descendants of Christopher Columbus.

I. Duke of Veragua, Marquis of Jamaica, was Don Diego Colón, oldest son of the discoverer.

II. Don Luis Colón y Toledo, who added to the former titles that of Duke of Vega de la Isla Española, in Santo Domingo, by favor of Philip II., in 1557, and that of a Grandee of Spain.

III. Don Alvaro de Portugal y Colón, who interrupted the male line.

IV. Don Nuño Colón de Portugal.

V. Don Alvaro Jacinto Colón de Portugal.

VI. Don Pedro Nuño Colón de Portugal y Castro; joined to the titles of the house of Colón those of the Counts of Gelves, Marquises of Villamizar. This Duke was Captain-General of the Armada of Flanders and Viceroy, Captain-General and President of the Real Audencia de la Nueva España. He was decorated with the Toison de Oro (the highest order of knighthood in Spain).

VII. Don Pedro Manuel Colón de Portugal y la Cueva. He was Field Marshal of the States of Flanders; General of the Army of Cataluña and in the State of Milan; Governor and Captain-General of Galicia; Viceroy of Sicily and Captain-General of the Galeras de España.

VIII. Don Pedro Manuel Colón de Portugal y Ayala; he joined to the titles of the ducal house of Veragua and the Counts of Gelves those of the Marquis de la Mota y San Leonardo and Count of Ayala y Villalonso. He was Viceroy of Navarre and of Cerdeña; Senior Member of the Consejo de Guerra (Council of War); Gentleman in Waiting to Philip V., and his Secretary of State with the portfolios of the Department of the Navy, the Indies and Commerce. He enjoyed the dignities of Azuaga and of the Granja in the Order of Santiago.

IX. Doña Catalina Ventura Colón de Portugal y Avala.

X. Don Jacobo Francisco Eduardo Fitzjames Stuart y Colón de Portugal. He was Duke of Veragua, of Liria, of Jamaica and of Berwick; Count of Gelves, Finmouth, Ayala, etc.

XI. By decree against the house of Liria, the titles of the house of Veragua were inherited by Don Mariano Colón de Toledo y Larreategui Jiménez de Embrún, of the Council of Castile, President of the Treasury with the honors of Secretary of State. He had the Great Cross of Charles III. and of Isabella the Catholic.

XII. Don Pedro Colón de Toledo Baquedano Larreategui y Quiñones, Senator of the Realm, Caballero del Toison de Oro, Great Cross of Charles III. and of Isabella the Catholic, and Grand Officer of the Legion of Honor, father of

XIII. Don Cristóbal Cólon de Toledo de la Cerda y Gante, the present duke.

Although the Duke of Veragua is at the head of the Spanish Commission to the World's Columbian Exposition, it is as the representative of the family of Columbus that he is received by the United States government and the various State, city and Fair authorities. His visit will be attended by a series of balls, receptions and festivals of various kinds, beginning at the time of his arrival and continuing until his departure. He is said to be of unassuming manners, and having considerable influence in Spain. Commander Francis W. Dickins, of the U. S. navy, was detailed to receive the Duke on behalf of the government, and to accompany him on his tour through the country. After attending special services at the cathedral in New York City and a reception given by the Chamber of Commerce, and receiving other attentions, the ducal party will proceed to Washington by a special train, and the Duke will be presented to the President. The party will return to New York to witness the naval parade on April 27, and will then proceed to Chicago to take part in the opening ceremonies of the Fair on May 1.

How to Print a Photograph on Marble.

Mr. Villon publishes the following process: Coat an unpolished plate of marble with the following solution: Benzine 500 parts, spirits of turpentine 500 parts, asphaltum 50 parts, pure wax 5 parts. When dry, expose under a negative, which will take in sunshine, about twenty minutes. Develop with spirits of turpentine or benzine, and wash in plenty of water. Now cover the plate where it is intended to be left white with an alcoholic solution of shellac, and immerse the same in any dye which is soluble in water. After a while, when enough of the coloring matter has entered the pores of the stone, it is taken out and polished. The effect is said to be very pretty.—*Photographisches Archiv.*

An Excellent Suggestion Relative to Rain Making.

To the Editor of the Scientific American:

Being a constant reader of your valuable paper for the past fifteen years, I take the liberty to make this suggestion.

Having read numerous arguments pro and con. on the subject of rain making by concussion, should think that in view of the proposed explosion of powder in New York Harbor on April 27, those interested would make careful note of the condition of the weather, whether it is favorable to rain or not, and if not, and after the cannonading no rain comes, then I should think it would be conclusive evidence that there is no virtue in it; for from what I have read of the requirements to cause rain, and what the salute is to be, I should judge the concussions would be sufficient.

ELMER E. BAILEY.

Haverhill, Mass., April 9, 1893.

THE BATES' NUMBERING MACHINE.

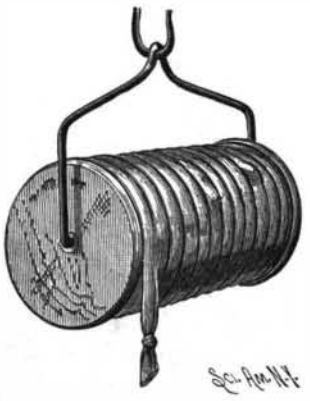
This highly perfected hand numbering machine is entirely automatic, and a boy can readily understand and operate it. It is small and light to handle, insuring speed in operation, and is designed with special reference to office and factory use. Every wearing part is made of steel, including the figure wheels, so that it works with very slight friction and almost entirely without noise. Every figure disk changes automatically in its consecutive order, from 1 to the full numerical capacity of the machine, and these machines are made with a capacity of numbering up to ten millions. The ink pads are practically indestructible. We have had one of these numberers in almost constant use in our office for some time back, and it gives excellent satisfaction. It is made by the Bates Manufacturing Company, Edison Building, Broad Street, New York City.

Another Wonder for Chicago.

It is rumored that a tall building is to be erected in Chicago in which there shall not be a stone, brick or piece of timber. Holabird & Roche have prepared the plans. It is to be constructed of an alloy of aluminum and copper—90 per cent of the former and 10 per cent of the latter—in the form of sheets over a wall of steel framed fireproofing. To a larger extent than is usual in such structures glass will be used, the windows being 22 feet wide. The structure, composed entirely of plate glass and shining pieces of aluminum, will, it is asserted, be as striking in appearance as it will be novel. The cost is estimated at $700,000.

A SAUSAGE CASINGS HOLDER.

The improvement shown in the picture provides a method of arranging and holding sausage casings which will enable an end always to be found, and by means of which also the casings will always be held straight and ready for use. It has been patented by Mr. Peter F. Turner, of No. 612 West Thirty-ninth Street, New York City. The casings are tied together, end to end, and wound upon a spool, instead of being indiscriminately bundled together in balls or packages, the spool being suspended in convenient position, so that in filling the operator can rapidly pull off the casings, cutting them on each side of the knot, thus facilitating their rapid handling, while the only parts wasted are the knots.



TURNER'S SAUSAGE CASINGS HOLDER.

The Lenox Free Library, New York.

The recent annual report to the Legislature by the trustees of the Lenox Library, New York City, shows that during the past year the library has received very large and valuable accessions.

Under the will of Mrs. Robert L. Stuart, who died in 1891, the library was made the legatee of all her books, paintings, statuary, bronzes, and other works of art, as well as her collection of minerals, shells, and other objects illustrative of natural history. They were to be placed, under the terms of the will, which were accepted by the trustees, in "a separate room or compartment of the library building," and to be known as "The Robert L. Stuart collection, the gift of his widow, Mrs. Mary Stuart."

For the purpose of carrying out these provisions, certain alterations were required; at the same time the whole interior of the building has been thoroughly overhauled and painted, and the whole put in perfect order.

Mrs. Stuart's library has been transferred and placed in the bookcases provided for it in the Stuart room. It comprises about 8,000 volumes, and is especially rich in fine illustrated works on natural history. Mrs. Stuart's paintings have been placed in the library. They number about 240, and comprise fine works by Durand, Cole, Kensett, Eastman Johnson, and other American artists, as well as foreign artists, such as Gerome, Rosa Bonheur, Bouguereau, Merle, Schreyer, Knaus, Munkacsy, and many others. The cases containing shells, minerals, and other objects illustrative of natural history required altering to adapt them to the room in which they are placed.

The trustees have acquired by purchase the original Spanish edition of Columbus' letter of 1493, which was discovered in Spain in 1890, and is the earliest printed book relating to America.

The American Inventor.

Of all the countries in the world, none is so prolific in inventions as America. There are several reasons for this. The ease of obtaining patents, and their cheapness, holds out to every man the chance of creating for himself a piece of property by the exercise of his brains. The high rate of wages insures the inventor of a labor-saving appliance a patient hearing from capitalists, while the independence of thought and feeling which pervades all classes leads to original views and to bold attacks on difficult subjects. Hence every one is a potential inventor, especially if he have an acquaintance with science or manufacture. Whatever a man's occupation, he must daily find himself called upon to do or to suffer many things from which he would gladly emancipate himself. The proverb says "There is a remedy for every ill but death," and seeing how many ills there are, the opportunities for devising remedies are not only numberless, but they are present to all. The unenterprising bear with patience the inconveniences that surround them, but those of active mind busy themselves in devising expedients to lighten the burden of life, and look for their reward under the provisions of the patent law. The inventor is the greatest benefactor of the human race, and especially of that part of it which is indigent; he is the real friend of the poor man, and indeed almost his only friend.

It is when we compare the condition of the poor to-day with that of previous ages, that we see how much the inventor has done for humanity. To know how hard life must have been before the advent of machinery, we have only to imagine a family set down on an island, and called upon to provide all their food and clothing without the aid of modern mechanical appliances—to plow and reap; to thrash, winnow, and grind; to raise cattle, kill and dress them; to shear, card, spin, and weave their wool; to make and mend their clothes; to provide soap, candles, tools, cutlery, earthenware, paper, pencils, nails, medicines, leather, boots, ropes, and the thousand and one things that are needed in a home. Evidently it could not be done, even if labor were continued from dawn to eve, and then extended far into the night. And this under the favorable conditions of a yeoman's family without rent to pay. How much worse must it have been under the exactions of a feudal landlord! Two-thirds of what we consider necessaries must have been omitted from the list of that day, and to sore toil must have been added scanty fare and insufficient clothing.

During the term of his patent the inventor, or his assignee, may make money out of it, but when it expires it practically becomes a gift to the masses. The producing power of the world has been increased manifold, without any corresponding increase in the consuming power of the upper classes. The wealthy do not eat more bread and meat to-day than they did years ago. Yet the output of these commodities has been vastly augmented, and they are consumed in large quantities by a section of the population which once seldom got flesh food, and often went short of bread. And so of nearly every other industry; the working classes take the bulk of what is produced, for the very good reason that they are able, by the aid of machinery, to turn out several times as much work in a day as could their forefathers. At the same time that their production has increased, their actual labor has diminished. A man with a heavy job in a foot lathe not only worked slowly, but painfully. When his long day was ended, every faculty was exhausted and he tramped home to rest, expended both in body and mind. Now he looks on while the lathe does the work, and in the evening discusses the provisions of the Employers' Liability Act. His hours, too, are shorter than they were, while the appreciation of gold which has taken place has enormously increased his wages by augmenting their purchasing power.—*Engineering, London.*