

OUR NATIONAL MUSEUM.

Better Known to the Public as the Smithsonian Institution.

Founded with Funds Left to the United States by James Smithson, an Englishman with a Terrible Grudge.

[Special Washington Letter.] On that delightful reservation in Washington known as the "Mall," or Smithsonian grounds, stands one of the most famous buildings in the world, namely, the "Smithsonian Institution." Although it is not one of the largest buildings in the world, it is architecturally remarkable. It is built of Seneca brownstone, and the Gothic style of architecture makes it resemble one of the ancient feudal castles with towers and battlements and embrasures like loopholes, reminding one of the ancient battles of the nobles when they fought with arrows instead of guns.

Inside, the prospect is very different from that of an ancient feudal castle, for there one finds not fierce-bearded barons with their ladies crouching behind them in fear of the coming foe, with their army of soldiers, trenchmen, vassals, serfs, servants, hirelings and minions. Next to the British museum, the greatest museum on earth, it is a museum not only of exhibit, but of education and for the diffusion of knowledge.

Here comes the peculiar and, one might almost say, romantic feature of this institution; for, at Genoa, Italy, on the 27th day of June, and in the year 1829, one of the noblest men that ever

lived, James Smithson, bequeathed to the United States of America the whole of his fortune, amounting in American money to about \$500,000.

English attorneys, having advised the charge d'affaires at London that it would be proper for the United States government to send attorneys as their representatives to England to prosecute its case before the English courts of chancery, the secretary of state, having transmitted the reports to the president on the 17th day of December, 1835, Andrew Jackson, then president, sent a message to congress advising the appointment of a commissioner to go to England to get the money. After sundry wrangles and debates in congress this was accomplished, and Hon. Richard Rusk was sent to England to prosecute the claim. Two years later a decree of chancery awarded the money to the United States and Rusk came home with it in the ship Mediator.

Then how to apply the money was the question. Some advised a public library, others a university. It was finally decided by the solons of congress that the most practical means to diffuse knowledge among mankind was by original scientific research, and the publication of the result of such researches for public distribution. In accordance with this view the Smithsonian institution, as it now stands, was built, but not until the original Smithsonian bequest had seen various rounds of fortune. By act of congress, dated July 7, 1838, and while the discussion as to what should be done with the bequest was still in progress, the whole sum of the Smithsonian bequest, amounting then to \$538,000, was invested in Arkansas state bonds, which afterwards became worthless, Arkansas defaulting in the payment of interest



SMITHSONIAN INSTITUTION, WASHINGTON, D. C.

and settling up a counterclaim of indebtedness against the United States. The congress then made the Smithsonian bequest good by placing to the credit of the Smithsonian institution in the treasury of the United States the sum of \$538,000; and so it was that the Smithsonian institution, as it now is, was begun. Its officers are the president, the chief justice of the supreme court, the members of the cabinet, three senators, three representatives, two residents of the District of Columbia, three residents of different states, a secretary and an assistant secretary. The secretary is the chief officer of the institution.

The first secretary, Joseph Henry, served from 1846 to 1878. The second secretary, Spencer Fullerton Baird, from 1878 to 1887, and the third and present secretary, Samuel Pierpont Langley, from 1887 until this date. The publications of the Smithsonian institution form a library in themselves, and are called "The Annual Reports," "The Smithsonian Miscellaneous Collections," "Bulletins of the National Museum," "The Annual Reports of the Bureau of Ethnology," and "The Bulletin of the Bureau of Ethnology."

These books are given to educational institutions all over the world. In return for these, and by purchase, the institution has received a library of 300,000 volumes, which is deposited in the congressional library for safe keeping.

In 1881, a new library was built, at a cost of \$250,000, to accommodate the growing needs of the National museum, whose collections of wonderful curiosities had become so large that the original building was no longer able to hold it. The bureau of exchange establishes communication with scholars in all parts of the world, by which their publications are exchanged for publications of similar societies.

The bureau of American ethnology has preserved all the vocabularies of the different types of American Indians in substantial volumes. Their indefatigable author, Powell, who has been in charge of the bureau since 1879, has undertaken many important expeditions to the west, notably among the tribes of Utah, California, Arizona and New Mexico, by which the stock of knowledge added to American ethnology has been very largely increased. The important expeditions of the Stevensons, Cushing, Fawcett, and the Muddesells among the Pueblo Indians and the ruins of the southwest; those of Holmes, among the prehistoric quarry cities and villages of the eastern part of the continent; those of Thomas, among the mounds of the Mississippi valley and of the northeast section, among the Popago and Seri Indians of the southwest, have also been conducted under the authority of the bureau of ethnology.

The zoological park was established by the aid of congress in the year 1890 for the preservation of such American animals as were then on the verge of extinction. The park is situated north of Washington, in the beautiful precinct of Rock creek, contains 467 acres, and is the largest of its kind in the world.



JAMES SMITHSON.

(Founder of the Smithsonian Institution.) the title of duke of Northumberland; and thus we base the early history of the man whose name, to use his own words, was "to live in the memory of man when the titles of the Northumbrians and the Percys are extinct and forgotten."

On the 28th of July, in the year of 1835, John Forsyth, the secretary of state at Washington, received information from the American charge d'affaires at London that the original testator of the will, James Hungerford Smithson's nephew (to whom he had left interest in his property and to whose children, if he should marry and have an heir or heirs, legitimate or illegitimate, he left all his property, except an annuity of £100 a year to one John Fital, an old servant), had died at Pisa, Italy, on the 5th day of June, and in the year of 1835, without heirs, and that as the will runs: "In case of the death of my said nephew, without leaving a child, or children, I then bequeath the whole of my property, subject to the annuity of £100, to John Fital, and for the security and pay-

IN CYCLEDOM.

CARE OF THE WHEEL.

Every Rider Should Learn to Keep His Bicycle in Order.

To the person who has not given the matter due consideration the mechanism of a wheel is regarded as exceedingly intricate; indeed, riders of a season's experience are found who are in equal ignorance. The non-rider thinks with consternation of what the result of a fall would be, miles from home, or a puncture in the park. A fall would surely break a wheel or twist the entire machine out of shape, and a puncture would be "awful" if not worse. Now, as a matter of fact, the construction of a modern, up-to-date bicycle is simplicity itself, and the modus operandi of taking it apart and putting it together again can be mastered by anyone with but little difficulty. This is usually found out by the novice along in the middle of the season after he has several times paid card rates at a repair shop to have a puncture fixed or the chain adjusted. Cleaning the bearings will cost the price of a Sunday dinner at a country inn, and could be done just as well at home while resting.

One agent tells of a young man who twisted his handlebar in the steering head and then trundled the machine three blocks to a shop and watched the dealer repair the damage with his hands in about five seconds and charge the amazed owner 25 cents for his work. Ordinary repairing, such as patching a puncture, straightening a bent fork, adjusting bearings, etc., can be made by the average rider if he will only take the pains to watch experienced persons when opportunity occurs and be sensible enough to profit by the watching. After one has mastered the mechanism of his machine there is a great deal more enjoyment to be had out of riding than when the rider doesn't know anything about it except that it is a bicycle. He who knows his steed will see to it that it is in perfect running order before he goes out, and will not be haunted by the suspicion that possibly something is the matter with the bearings or the chain, or that his reach may not be just right. Nor will he be continually annoyed by squeaking and grinding noises like the rider who depends on the repair man to keep his wheel in shape. —Chicago Chronicle.

THE BANTAM BICYCLE.

It Dispenses with Chain Gearing and Is Very Light.

A new thing in bicycles is a tiny machine called after the tiniest chicken, the Bantam (for men), and the Bantamette (for women). It is the lightest of any cycle made. It has no chain or gearing that is necessarily connected therewith, the pedals being connected directly with the axle of the front wheel, the back wheel taking care of itself and following "the leader." The seat is over the center of the machine, the wheels are near together, and the whole mechanism compact and durable.

It is claimed that it is easier to learn to ride, easier to ride, and easier to mount than any other, and that there



LIGHTEST BICYCLE MADE.

can be no stopping. This last feature, it is said, will do away with the "bicycle race" and is much to be desired.

Whether great speed can be acquired or not is not stated, but it being an English invention, and the English being a leisurely riding class of people, perhaps that is not considered an essential, although it may be that great speed can be cultivated without so much exertion. In fact, the extra lightness by reason of the chain and gearing being taken away leaves less weight to be propelled, and may involve no loss of speed.

A Brace on the Wheel.

An arrangement made of strong elastic worn around and under the arms in the manner of the horseline of juvenile days has been placed on the market for the benefit of cyclists. When properly attached under the saddle it gives him an extra force on the pedals. It is said to give additional power in riding up steep grades and is a brace as well, as it prevents the rider from being pulled off the seat when back pedaling. It can be worn with coat or sweater and the hook can be bent to fit any saddle. When the rider sits up riding the article is not in use, as the hooks drop out of place.

Women and the Bicycle.

A physician who wrote and talked much in favor of bicycle riding for growing girls and women when the exercise first became popular says that now, after five years, his opinion is the same with one qualification—moderation. Women should not, young or old, ride long at a time, and should not ride fast. On these limitations he now lays the greatest stress, giving his consent to his patient's riding at all only when she will positively promise to agree to them.

Fixed for Life.

Young Solicitor—Make yourself easy, my dear sir; the successful management of your case shall be the task of my life. —Tit-Bits.

HUMBRECHT'S DICYCLE.

A Somewhat Striking Novelty in the Velocipede Line.

Humbrecht's dicycle, patented November 10, 1896, is a striking novelty in the velocipede line. Two wheels are mounted on a V-shaped axle, between which the rider sits. A crank-shaft having foot-pedals is suspended from the axle convenient for the rider to operate. Sprocket wheels are mounted at either end of the crank-shaft, and connect by drive-chains with loose sprocket wheels on the axle. The last named sprockets are loosely connected to the hubs of the supporting wheels, and suitable clutches are mounted on the axle adjacent to the sprocket, whereby the latter are coupled to the wheel-hubs, and the machine driven or propelled



CAVALRY OF THE FUTURE.

either forward or backward. Handles are provided on the clutches to readily throw them into and out of gear when it is desired to slacken up or to turn the machine. The rider's seat is swung between the bearings, so that he can't upset.

The dicycle will doubtless become popular, as it is especially adapted to those who do not care to go to the trouble of learning to ride a bicycle, and it is easily ridden, and old and young are equally suited to it. As there is no straddling necessary, the modesty due to the ladies is always present in the dicycle, as seen in one of the accompanying cuts, and no unbecoming bloomers or short skirts are necessary. The wheel can be used advantageously by soldiers and messengers in time of war, as it cannot be injured to any great extent by a few bullets, or disabled, as can a horse, whose life is always at stake, even by a single missile. Baggage and equipments can be carried to quite a large extent, and the cavalry of the future will doubtless be mounted, as shown in the cut.

NEW ENGLISH TIRE.

Its Inventor Claims That It Readily Inflates Itself.

A self-inflating tire has been invented, so it is claimed, by an Englishman. It is self-inflating, inasmuch as the air comes in automatically, and also self-deflating, because the air escapes almost on the same plan in which it comes in. Strictly speaking, the invention is an alternating inflating and deflating tire, working automatically. Instead of the usual endless tube, which is common to all or most detachable tires, a piece of tubing of about half the diameter and twice the length is employed. This tube is coiled twice around the wheel in a direction opposite to that of its rotation, and each of the two ends taper, where it is sealed. These ends overlap one another to the extent of the tapering, and so fill up the space. A valve of the ordinary kind is fitted near one end of the inner tube, and the first coil occupies a position in the hollow of the rim. This part of the tube is thinner and of smaller diameter than the other half, which is coiled outside of it, and is situated immediately beneath the tread of the tire. An outer cover of ordinary character and attachment is used.

The automatic inflating is performed as follows: If the tire is empty or has little air in it, the weight of the rider and the machine compresses the tube, more especially the bore of the thinner part lying in the rim, to the end of which the valve is attached. This part is flattened under the pressure, and as the wheel goes around the pressure travels along it, leaving behind a vacuum into which the air flows through the valve. This operation goes on until the tire is fully inflated, being renewed at every revolution of the wheel. The ingress of air follows the flattening of the tire, making the inflation of the tire an automatic process. The tire works, whether there is a puncture or not, and the claim can also be made that it is non-puncturable.

Bicycles Driven by Wind.

No less than three attempts to cause the wind to aid the bicycle rider in driving his machine have recently been made by inventors, one American and two French. In the case of the American and one of the French inventions, an apparatus constructed on the plan of a toy windmill is attached to the machine, and geared to the front wheel in such a manner that the force of the wind can be utilized in turning the wheel. The third contrivance also acts on the principle of the windmill, but its motor, instead of having fans all facing one way, is shaped like an empty pumpkin shell, with the segments slightly separated and inclined inward. The practical usefulness of these devices remains to be demonstrated.

Chloral and Alcohol Users.

The Rhode Island legislature at its recent session enacted a law which provides that persons addicted to the use of chloral or alcohol may be committed to an asylum for the insane until their normal condition has been restored.

America Leads the World.

The real reason why England, Canada and other countries want protection from our manufacturers of bicycles is that American enterprise and American automatic machinery set a pace that is too swift to follow.

FARM AND GARDEN.

EGGS OF COMMERCE.

Big Business Done in the International Trading in Them.

There is a standard joke in the variety theaters, so often told that it has come to have a familiar sound to the ears of patrons, concerning a remark made by a city man who heard that eggs had gone down to a cent apiece: "I don't see how the hens can do it for the price." Notwithstanding the reduction in the price of eggs, and the almost unlimited supply of them in almost all countries that have developed their agricultural resources, it is a fact that the trade in eggs, their exportation from one country to another, has become a large item of international commerce, as some recent figures show. The case of Denmark is in point. Denmark's trade in eggs with foreign countries, chiefly with England and Scotland, has grown enormously. Twenty years ago the annual Danish export of eggs was 600,000; now it is reckoned at 110,000,000. In the same period the importation of eggs into England has increased tenfold, but only a part of the whole number came from Denmark, the two other egg-exporting countries from which England draws its supplies being Holland and France. France exports to other countries 600,000,000 eggs in a year, and Italy exports 500,000,000 eggs in a year, chiefly to Austria and Germany.

The dairymen of the United States depend chiefly on the enormous home market, and they have rivals in the export of American eggs in the Canadians, Canada ranking next to France and Italy and ahead of Denmark and Holland as an egg-exporting country. Canada exports to other countries 300,000,000 eggs in a year. For the fiscal year of 1895 the treasury figures give the total exports of American eggs to foreign countries 151,000 dozen, which is equivalent to 1,812,000 eggs. In the fiscal year 1896, however, the total exportation of American eggs increased to 328,000 dozen, or 3,936,000 eggs, a little more than twice as much. The export figures for this year indicate a still further increase, and a market for American eggs is likely, therefore, to be secured in what the political campaign orators are accustomed to call, somewhat vaguely, the near future.

It is a somewhat curious fact that the weight of eggs is materially larger in northern than in southern climates. Canadian eggs, for instance, are heavier than those shipped from the United States, and eggs in the northern states of this country are heavier than those from the south.—N. Y. Sun.

BEEES BY EXPRESS.

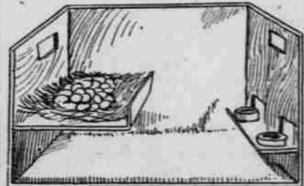
Some Valuable Hints Regarding Packing and Shipping.

An exchange gives the following directions for packing and shipping bees: The manner of packing depends somewhat upon the kind of hive, and to some extent on the season of the year. They can be shipped any time of the year when bees are flying. If the weather is comparatively cool, as in the spring and fall, they do not need so much ventilation as through the warm months. There is little danger, however, of giving too much ventilation at any time. Just how the ventilation can best be given depends upon the hive, but with almost any hive you can have the entire top covered with wire cloth, and that makes the colony safe against smothering. If the weather is hot the bees need a supply of water on their journey, which may be given by means of a sponge or a roll of rags saturated with water and placed on the top of the frames. If the hive contains loose-hanging frames, these must in some way be made fast. This may be done by driving nails through the ends of the top bars down into the ends of the hive, but the nails should not be driven in their entire depth, leaving their ends projecting so they can be drawn with a claw hammer. When placed on the cars, let the frames run parallel with the track; on a wagon they should run crosswise.

FOR SITTING HENS.

A Device That Is Easily Made and Saves Lots of Trouble.

A labor-saving device for use in setting hens is shown herewith. A shoe or grocery box of sufficient size is taken,



LABOR SAVING DEVICE.

and a nest is made in one end, as shown in the engraving, the top and front having been removed to show the interior. The bottom of the box is covered with road dust, or coal ashes and a shelf for setting in water and cracked corn—the best feed for sitting hens. Openings for air are made in each end. A hen can be placed on the nest, the cover of the box put on, and biddy left to her own devices until she brings off her brood. This plan takes away much of the care usually experienced in setting hens in spring.—Orange Judd Farmer.

Weight of Baby Pigs.

What is fair average weight of a pig at birth? At the Oklahoma experiment station a litter of five pure bred Poland-China pigs from a yearling sow averaged 2.6 pounds the day of birth. When seven days old they averaged 4.6 pounds. Five from an older grade Poland-China sow, out of a litter of seven, two having died, averaged 2.75 pounds at day of birth and 5.6 pounds when seven days old. Nine Duroc Jersey pigs, two others having died, from a two-year-old Duroc Jersey sow, averaged 2.44 pounds when one day old, 4.75 pounds when seven and 7.57 when 15 days old, two pigs having been lost in the meantime.

A SUCCESSFUL RACK.

Owners of Sheep Would Do Well to Investigate Its Merits.

Below I give a description of a sheep rack of my own construction, which may be called a combination stationary rack. Eighty feet of lumber will build a rack 12 feet long. The cut gives both end and side view of rack when completed.

The rack is built as follows: Frame stuff for posts should be 2x2 inches. A rack 12 feet long should have three frames and one 16 feet long four frames. Posts should be 34 inches long. Width of frame at top 28 or 30 inches, and 22 inches at top edge of piece 5. This is where the boards rest on for bottom of grain trough; two boards 10 inches wide for bottom, and board C nailed securely to the out edge of bottom form the grain trough, which should be not less than 5 inches wide. Board A is 12 inches wide and is nailed on the top side of slating pieces 3, which form bottom of hay rack. These pieces should be 1x4 inches. They are nailed to top of frame and rest on top edge of board B, which sets on the center of



EXCELLENT SHEEP RACK.

bottom, hence makes two troughs and makes a solid base or bottom of hay rack. This board may vary from 6 to 8 inches in width or height. D are strips 3 or 4 inches wide nailed to lower side and edge of board A, and on top edge of board B strips one-half inch thick and 3 or 4 inches apart. This completes the rack.

When sheep have access to the hay or rough feed no hayrack can get in the wool if hay and grain are fed at the same time. The grain should be put in first and can be poured into the top of rack, and it will divide itself equally in both troughs.

Foot piece 6 is made of inch lumber, and should be securely nailed to bottom of frame. This makes the rack stand firm. Piece 4 is 5 inches wide and keeps the rack from spreading.

This sheep rack is easy to make. Anyone who can use a square, saw and hammer can make one. It is all put together with nails. I know of no better rack. I have used this rack for stock sheep for over eight years. Small lambs will not get in the troughs to soil the grain. —E. L. Horner, in National Stockman.

KEEP MORE SHEEP.

Many Reasons Why Every Farmer Should Have a Flock.

There are a number of reasons why sheep should be kept on every farm, whatever the price may be for wool or mutton, says a writer in the Rural Canadian. Sheep should be kept in time of low prices because the low prices will not always exist, but are likely at any time to take an upward trend. When that time comes the people will be found clamoring for mutton, which they learned to eat in a time of low prices. When the rise comes the number of sheep being marketed will suddenly fall off, as will also the number to be had for breeders. You will then be glad that you kept enough of the old flock to provide for the expansion of the new flock.

Sheep should be kept because there are many wild grasses on nearly every farm that will be eaten to the best advantage by sheep. They have no butter or milk to be tainted and rejected by the market for that reason. A lot of sheep running in the cow pasture might reduce the weeds to such an extent that much of the bad effect on the butter would be avoided.

Sheep cannot be dispensed with for the reason that they provide meat in small parcels, each one of which may be disposed of before it suffers from the effects of decay. Every farmer can thus provide himself a constant supply of meat that can be equaled only by his poultry. The two make an agreeable addition to the larder.

Sheep should be kept in large quantities for the public good. If the present rate of depletion be allowed to go on, there will come a time when we must import a considerable amount of our mutton, and the money thus going out annually will tend, by so much, to keep the balance of the trade against us.

Green Bone for Poultry.

The bone cutter is as necessary to the poultryman as his feedmill. It enables him to use an excellent and cheap food, and gives him a profit where he might otherwise be compelled to suffer a loss. It is claimed that a bone cutter pays for itself in eggs, and really costs nothing. Bones are now one of the staple articles of food for poultry, and no ration should have them omitted. They are food, grit and lime all combined in one, and the hens will leave all other foods to receive the cut bone. If cut fine, even chicks and ducklings will relish such excellent food, while turkeys grow rapidly on it. To meet with success requires the use of the best materials, and green bone beats all other substances as food for poultry.—Farm and Home.

Treatment of Broody Hens.

When it is desired to break up a persistent sitter it is often a hard matter to succeed, but if the hen is given a new location she often concludes not to sit at all. When a hen becomes broody she should be removed after dark to some place away from the layers. If this location is very near like the old one it is possible the hen will become contented and proceed to sit. At first she may be given two or three wooden eggs, and if she shows an inclination to sit after a day or two she may have the eggs for incubation. Glass or porcelain eggs are cold and may cause the hen to refuse to sit, rather than be an inducement to her.—Dakota Field and Farm.

Don't ask a boy to do a man's work. He will leave the farm if you do.