The little party of biologists sent out by the University of Pennsylvania to make investigations and researches have returned with abundance of glory and several boxes, tubs and tanks full of curious specimens. The primary purpose of the jaunt was to give the party an opportunity to determine upon the Bahamas as the site of a biological marine station that the university desires to establish and hopes to have in existence within three years. It already

has a considerable fund for that purpose. The residence of the party during their stay was at a comfortable house three miles from Nassau, almost on the water's edge. They lived in community, each member taking charge of the men in turn. The cost was extremely modest. The men went to work at once, taking advantage of such assistance as the people roundabout could afford. A young boatman and diver grown animals, and the effect was named Brown was found to be of great use, having already served three distinguished naturalists-Prof. Gardner. who was sent out by the English Government; Prof. Welden, of Cambridge, and Prof. Brooks, of John Hopkins.

All the party were good swimmers, and soon learned to do their own diving. Each provided himself with a crowbar and a water box, a small box with a plate-glass bottom. The glass, quieting the ripples on the surface of the sea, enabled them to see far down into the depths, many times to the very bottom. When any one saw a bit of rock-bearing coral, anemones, sponges, or other objects that he wished to secure he tossed the glass aside, dived down, and pried the desired specimen loose with the crowbar and carried it up under his arm. Practice enabled them to stay a long time under water. Mr. Marshall frequently remained two minutes submerged. Dr. Dolleys says that any man can remain under water a considerable time if he will only simply make up his mind to do so. There is an intense feeling of oppression at first, but Dr. Polley says that it is simply nervousness, and soon passes away.

Several medicinal plants were secured and experiments will be made as to their therapeutic value. Among them is a curious bean that animals are very fond of eating. At first the animals grow fat and sleek. But in about two weeks their tails and manes drop off; in another week their hoofs and horns, if they have horns, go. Then they grow weaker and weaker and finally die of fatty degeneration. But even to the end they eat the beans with inifinite relish. There are other plants in the collection that are used by the natives in the treatment of rheumatism and dysentery with apparent success. The doctors are "bushmen," who have learned the medicinal qualities of herbs and roots and trees by tradition. Governor Blake, for the party, sailed to the island of Alaco one day and settled the question as to whether flamingos sit in or stand over their nests, a question about which naturalists have been in dispute these many years. Dr. Dolley says Governor went swimming at night in a wonderful phosphorescent lake. At every stroke the swimmers created waves of fire, and when they climbed out upon their boat their bodies seemed covered with myriads of flaming sparks. The "sparks," of course, were myriads of copepods, the little glowing creatures that give the appearance of fire to the surface of the lake.

Some skulls of the Luycayans, the original inhabitants of the islands, who were exterminated within thirty years after their discovery by Columbus, were found in a cave. - Philadelphia Times.

### WHAT A MAN EATS.

Amount of Solid and Liquid Food Consamed by Every Individual.

It has been calculated that on the average each man who attains the age of three score and ten consumes during the course of his life twenty wagons loads of food, solid and liquid. At four tons to the wagon, this would correspond to an average of about a hundred ounces of foct per day, or say some one hundred and twenty onnees per day during adult life, and about eighty ounces during infancy and youth. Mostmodern dictors agree in regarding one hundred and twenty ounces of food per day, corresponding to five or six half pints of liquid food, and seven or eight pounds of solid food, as in excess of the real daily requirements of a healthy man or woman.

Yet, probably most of us take more than this, in one way or another, during the day. Dr. Lankester, from an extensive analysis of the dietary of seidiers, sailors, prisoners and the betterpaid classes of artisans and professional men in London, found the average daily quantity of solid and liquid food to be 143 ounces. Doubtless many take much less; but unquestionably many take much more than this. When some one mentioned before Sydney Smith the twenty wagon-loads of food calculated for each man's allowance, he turned to Lord Durham, who, like himself, was corpulent (and not without sufficient reason), with the quaint remark: "I think our wagons, Durham, must be four-horsed ones." There are members of the London Corporation, to seek no further, whose wagons must be six-horsed ones, and well loaded at that. -R. A. Proctor, in Cosmopolitan.

-He -"Now that we are married we are one, and I shall insist that this be the last time you appear in a low-neck dress." She-"We may be one, but you are only half of us, and I shall dress my half as I please."-Boston

#### ENSILAGE RATIONS.

and Süggestions Submitted by an Experienced Agriculturist.

The individual practices of the silo owners of this country are so varied and the plans of raising silage so different that it is difficult to lay down any definite rules in regard to silage feeding. The original idea of ensilage was to secure by some means as great a growth of fodder as possible, paying no attention to grain bearing along with stalk growth. By this plan silage was largely "greenness and water," and in feeding it a great quantity was necessary for a ration, and so, perforce, grain in form of oats, bran, linseed meal, and like nitrogenous foods had to be fed to give a balanced ration. Under this system we heard of cows consuming bushels, each, of silage per day, and a large grain ration in addition. In the early days of ensilage men told me they fed from seventy-five to one hundred pounds per day to much as it would be to gorge an animal on any other sort of dilute food.

It was not long before the advocates of exclusive silage feeding discovered that the ration was too bulky, and that not only was it better to direct the growth of the silage fodder towards grain-bearing, but that there must be a rotation of crops on the farm. This implied some clover and tame hay, a certain amount of stalks from field corn, which should be fed along with the silage; and so from these causes there has been a reduction in the amount of the daily silage ration; and to ray knowledge last winter from twenty-five to fifty pounds, along with other feeding materials, was about the average amount fed.

Necessarily there was a curtailment of the silage ration when the idea of grain growth was made prominent in the raising of ensilage fodder. Gradually, in this, the amount of ensilage seed corn has been reduced to about twelve to fourteen quarts per acre, and this thinning out not only gives a strong, lusty stalk in place of the spindling one, but a big, well developed ear of grain on about every stalk, that adds fully one-half to the ration, pound for pound. This season I drilled in my ensilage in rows three feet eight inches apart, a kernel each six or eight inches in the row, and the result has been more like field corn in its development of grain-not attempts at ears, but full-sized ears, with filled and plump kernels. The stalks growing twelve and fourteen feet bigh, will average twenty good ears to each twenty-five stalks, and as we cut them into the silo, the silage as it came falling from the "snoot," seemed white with its mixture of corn, and must make a ration that has more than twice the feeding value of silage that bears no grain-for the latter is largely lacking in sugar and starch-and a proportionate smaller amount must have equal feeding value.

The outery against silage for the dairy has ceased, and no one now disputes the excellence of milk made from a good silage ration-and to do so would be to fly in the face of factsand so how to feed silage after it has been "cooked" in the pit, is of some Blake reported that flamingos sit in moment. The silage is ready to feed their nests like other birds. The party as soon as the temperature has fallen to about eighty degrees, which it seems to do readily in about three weeks, after putting on the covers. A very desirable thing to do, when ready to commence feeding, is to remove the covers all off from one pit, and remove the silage as wanted evenly from the surface. This method gives the silage a chance to become "aired" and lose its fresh, and often somewhat pungent, odor; and then it can not give to the milk any foreign flavor. In feeding the silage should be removed from the surface of the pit so frequently that there is no chance for any change to occur in its chemical character; and observance of this rule, even with what is known as sour silage, prevents any deterioration in the milk.

When bran is fed, it is desirable that the amount should be divided and put on the morning and evening silage feeds. The two are then eaten together, and go through the animal laboratory together for digestion and assimilation, and no known method of feeding can better this.

Handiness in feeding silage is greatly promoted by using a two-wheeled wheel-barrow. Such a barrow is not inclined to tip over, and if made to hold about five or six bushels, it will contain silage sufficient for about twelve cows. By weighing a few scoop shovelfuls, one can quickly learn to weigh a ration by the eye and hand, and the work of feeding a stable of cows or steers is quickly performed, and the bran can be mided to the silage in the manger, and the proportion for each animal can be varied as circumstances may warrant. - John Gould. in Rural New Yorker.

-Little Georgie used to say his evening prayer while sitting in his mother's lap. One night he hopped down, and dropping on his knees, raised his hands in a very devotional attitude, and repeated: "Now I lay me down to sleep." Charmed at the manifestation of reverence, his father asked: "Georgie, do you suppose God likes to have you say your prayers this way better than the way you used to?" "O. I don't suppose God cares anything about it," the child replied. "I was thinking of the kangaroo." He had been to the menageric and seen the animal sitting on its haunches with its fore feet placed together somewhat as he placed his hands in saying his prayers. - Boston Post.

-Allow no cruelty to domestic ani-

#### PRIMITIVE PEASANTS.

The Social Condition of the Simple In-

On our way through the country we saw wheat being trodden out in the old-fashioned manner by yokes of oxen. The Scriptural injunction in regard to not inuzzling the ox was more honored in the breach than in the observance. This laxity on the part of the inhabitants can be excused, however, when the high taxes under which they labor are considered. The Government exacts and rigorously collects an exorbitant toll from every farmer in the islands; besides this, he is taxed for personal property, for maintenance of a doctor in his district, and for schooling, if obtained at night, which amounts to the same as taxing him for day school, as under the circumstances it is hardly possible for the young Azorean to spend much of his time during the day in the idle diversion of the three R's. The Church, of course, comes in for its share, although this last luxury is nominally free.

The pay of a first-class workman is usually 50 to 60 cents per day, including meals. Farm laborers are not paid so well; they get 25 to 30 cents and many are glad to work for a bare subsistence. The dream of a peasant's life in the Azores is to be able to get to America. This is his El Dorado, and whole families deny themselves for years so as to save enough money to send the younger members of the household to the land of promise. Fifty dollars is accounted a large capital with which to start the happy youth in life. If this can not be raised before he reaches the age of fifteen he either has to leave with less money or not leave at all, as no one is allowed to emigrate after reaching that

The utmost care is taken that no one breaks this law, but here, as in most cases the world over, "Where there is a will there is a way." Many peasants whose families were too poor to provide them with the necessary dot before the age of restriction, by steady industry and frugality accumulate sufficient money to pay their passage to America in some of the vessels trading between the islands and the States. When the vessel quits port with a clean clearance from the local authorities she immediately proceeds to put as much distance between her and the island as possible, seemingly.' But once beyond the view of the sharp-eved officials speed is slackened, and under cover of the darkness she returns toward the island and lowers a boat when off some pre-arranged spot to take on board the runaways. At other times another plan is adopted. A vessel touching at one island and bound for another of the group takes on board some of the natives as passengers for the latter place. This is perfectly legitimate and nothing is done to hinder her departure. When, however, it is found that these natives are not only ready, but anxious to forego the pleasure of landing at the second port and signify their willingness to proceed with the captain wherever he is going, even to America, and will pay their passage, he usually ends by finding the weather too bad to make the port originally intended, and lands his passengers in América under a certifi-

cate something to that effect. At sixteen the Azorean youth is liable for military duty and the glories of a soldier's life are thrust upon him for five years whether he is ambitious or not. The pay of a soldier in the Portuguese service is not calulated to fire the heart of even the poor Azorean peasant with martial longings. Two suits of uniform, consisting of a dingy brown surtout, a stiff shako and a very baggy pair of Impressions Made by a Hot-Wind Day in brown linen trousers, complete his outfit for one year. Three cents per day is allowed him to purchase bread and tobacco. If after five years of this luxurious kind of life he is still found able to bear arms, he is put with the reserve. where he remains five years longer, subject to be called upon for duty at a moment's notice by the military authorities. - Cor. San Francisco Chronicle.

### HORSE-MEAT FOR FOOD.

An Article of Diet Which Is Quite Popular in Paris and Berlin.

English-speaking people have never taken kindly to the idea of eating horseflesh, although some persons in this country and many more in England have from time to time strenuously advocated its use. The belief, however, that large quantities of horse-flesh are fraudulently sold for more orthodox meats, in the latter country, has recently provoked the people of Manchester and Salford to call a public meeting sprucely dressed, straightway it makes and petition Parliament to pass an act to compel butchers who sell horse-flesh

to label it as such. In Paris, Berlin and Vienna the popular consumption of horse-flesh seems to be constantly increasing. In 1877 there were slaughtered for food in Paris 10,619 horses and mules, and in 1878 the number increased to 11,319. In the winter seasons of these two years there were slaughtered in Berlin about 5,000 horses, the flesh of which was mainly used for sausages. The central horse-slaughtering establishment of Berlin comprises an acre of land, upon which are buildings for the inspectors, stables, etc. Every morning the horses to be slaughtered are mustered for inspection, and such as appear diseased are condemned to the knackers. It is stated that good horses are generally bought for this purpose, the butchers buying many young horses from the farmers and breeders which, for various reasons, are not considered desirable

-When a lamp burns poorly boil the metal burner in soda and water. Gummy accumulations from the oil will be removed and the light will burn as brilliantly ar ever.

to raise. - Range Journal.

HOW TO TELL STORIES.

An Accomplishment Possessed by But Few Mortals.

In all ages and in all lands the art of parrating a story by word of mouth or by the ready pen has been practiced, and a few individuals among the rest of mankind have been gifted with this faculty, which they have exercised in preparing food for the fancy of their nearers or readers in fable, epic or the modern novel. These are akin to the artist who differs from the mere portrait painter. The last named can produce a resemblance which may be perfeet in light and shade, and even in expression; but though this may give as pleasure it does not stir in us the admiration that we award to one who can produce a situation calling forth our emotions. The faculty which can produce this is much more rarely met with.

A well-told tale is as rare as a perfect day. It is the result of bappy influences, and, like a well-developed man or woman, requires favorable circumstances for its development. It owes much of its interest to the language used in-telling it and the skill with which it is illustrated, as in the plays of Shakespeare. The plots of many of these plays are not original, but the way in which the author has made, from what were originally but phantoms, galleries of life-like figures, is a striking proof of its power, A similar effect is often produced by writers of tales.

It shows great merit in a story when the incidents of it linger in the memory. "Silas Marner," by George Eliot, is a remarkable instance of this quality. Any one who has read this tale must have noted the ease with which each incident may be recalled, even a long time after it has been read, and this characteristic seems to result from its being free from superfluous matter. from the way in which the main incidents are grouped, and from the beauty and simplicity of the tout ensemble.

Love and war, with the troubles resulting therefrom, form the materials of most of the ancient stories, while the situations of the modern novels are the results of complicated difficulties incident to a more advanced state of civilization. Life abounds in incidents for the modern tale-writer. There are many people who confine their generosity to what they consider their own class, and who spend time and money in deeds of charity, yet think nothing of wounding the feelings of those a little beneath them in rank. They are kind after their own fashion, but would sacrifice their dear friends rather than lose an inch of their hard-won social position. Such people are common both in real life and in novels, and when the story of their doings is well told it excites in the reader much interest.

To read a good story has a similar effect to spending a few hours in pleasant company; it cheers and relieves the mind; the small troubles that may have vexed lose their hold upon us, and when we return to them we are so refreshed and invigorated by the action of change that they weigh but lightly upon us. Sometimes an incident recalls to our memories some of the pleasures and pains of that brief season of early youth of which we all like to prolong the remembrance. Stories from other lands have a great charm for young people and children. There is for them the novelty of learning about foreign customs and seeing that human nature is alike in its deep experiences under very different outward ways and manners. Chambers' Journal.

# FIERCE DUST STORMS.

Australia.

With strict impartiality it speeds alike down the hutter's chimney, formed of old kerosene tins, and the Elizabethan stacks of fashionable suburban mansions, charges up the busy streets, flashes through the omnibuses in at one window and out of the other. like the clown in the pantomime. But not all of it! not the six bushels! Shake yourself and see. Then it spins along the suburban highways, pounces down on the scavengers' heap of dead leaves and other odds and ends of unconsidered trifles, and they are gone, and their place know them no more-Poets seeking new tropes and figures of speech should try what can be made of an Australian dust storm. Every window in the cities is closed, and the heated blast chafes and howls about the casements in a frenzy of impotent rage. Should any one incautiously turn a street corner particularly for him. The air soon becomes a combination of atoms as lively as aerated waters. The whole surrounding country seems shrouded by an atmosphere which has been whipped into the consistency of pea soup. One side of the street is sometimes as completely hidden from the other side as by a November fog in London. Woe to the unlucky housemaid who has inadvertently left open a single window! Repentance in sackcloth and dust is her condign punishment. And thus the enemy speeds up and down the day through. The heat is stifling, but people all seek to close every avenue of approach. Batten down and stew is the order of the day. Of two evils it is by far the least: indeed, the only defense, and every port is closed as on board ship in bad weather. Should the demon succeed in effecting an extrance he sweeps through the hall, rushes up stairs, and bangs every door like a maniac. The hotel kitchen is a subject of special anxiety to the functionaries concerned, and certain vendors of perishable commodities close their shops altogether. - Murray's Magazine.

There are twenty-one bureaus of labor in the United States. Four years ago there were only seven.

CALIFORNIA MONKS.

The Foundation, Progress and Decay of

It makes little difference how one enters the Santa Barbara valley, for the mission which overlooks it is the first object that attracts attention. It occupies an elevated site at the head of the valley, and is clearly outlined against a background of hills. The church was begun in 1786, and finished in 1822. In 1812, and again in 1814, it was nearly destroyed by earthquakes. It was intended by Father Junipero Serrano to build the Santa Barbara Mission long before it was really begun, but he died before doing more than select its location and consecrate the ground: From 1822 until 1833, when the act of secularization was passed, the building was the center of great wealth and power. The fathers were temporal as well as spiritual rulers of the land, and their church was the best largest in California. The walls were of stone, six feet thick, and plastered with adobe; the roof was covered with bright red tiles, and in the towers was hung a trio of Spanish bells. In the rear of the mission the fathers had their garden-a shrub-grown half-acre, completely isolated from the outside world. From the west tower a long L extended at right angles to the body of the church, and facing this was an open corridor. The Indian converts lived in huts, and the fathers raised large quantities of grapes and olives. When war was made upon the Franciscans, the Santa Barbara brothers were the only ones who dared remain at their posts. That they did so is due the excellent preservation of the old building. Time has changed it somewhat, to be sure, but has mellowed and softened rather than destroyed. The stone steps leading to the facade are cracked and mossgrown; only one of the original six fountains is left; the Indian cabins

service continues to be held. There was a decidedly musty smell to the church, and both the visitors spoke in whispers. Edith's guide showed her all the paintings, and gave the history of each-who this was done by and when, how it came to Santa Barbara, and other facts of interest. Just beyond the choir were two small chapels, each with its altar pictures and ornaments, and a few steps from that on the right of the nave the father stopped before a high double doorway, and began unlocking the heavy door. When he had thrown them open he crossed himself, and leading the way, asked Edith to tollow. Doing so, she found herself in a walled inclosure overgrown with rank grasses and rose-lushes. Above the doorway Edith saw three whitened skulls set in the wall, while under the caves of the church, which projected upon thick buttresses, the swallows were flitting back and forth from their nests of sunbaked mud.

have disappeared. A few Franciscans,

shaven, and dressed in long, coarse

robes belted at the waists, still inhabit

the bare narrow cells, and loiter about

the corridors and garden, and regular

"This is our cemetery, senorita," said the father, at last. "Are the skulls real, father?" asked

Edith. "Yes, child."

"And are many people buried hero?"

"Oh, yes, very many. We do not use it now. There is not room, to tell the truth. You need not dig deep to

find skulls and bones in here. It was not a pleasant thought to Edith to feel that she was walking over the resting-place of she knew not how many pious fathers and Indians. It was very quiet. A high wall completely hid the road to Mission Canyon, and on the west was the church, above which rose the towers. There were several vaults, and each had its wooden cross and vines. Doves were cooing on the caves, and the swallows

chatted incessantly. On leaving the cemetery the father and Edith returned to the church, and passed up the long nave to the altar, which was covered with a snowy cloth, and decorated with tall candlesticks and other ornaments. Behind it, filling the end of the room, was a wooden reredos, elaborately carved, and having fine life-sized colored statues before each panel. On either side of the altar, set on white pillars, were two other statues, and between them was a large cross, with the Christ upon it. To the right Edith noticed a curiously-shaped hat hanging upon the wall, which was covered with dust.

"It belonged to Garcia San Diego, the first Bishop of California," said the father, when he saw Edith looking at it. 'His body is entombed here, as the tablet says. He was a patient worker and a godly man. Would 1 could be buried here, in the very walls of the church I serve!"-Edwards Roberts, in Harper's Magazine.

### Living Mastodons.

D. H. Summers, of Denver, Col., who has spent some time in Alaska, says that the existence of living mastodons is not the fabrication of Northern furriers, but the Stick Indians told him positively that they had seen such animals. One Indian related that he had been attracted by a huge track and followed it up until he came to the animal which made it. He described the beast as being larger than a house, with shining yellow tusks and a mouth large enough to swallow him at one galp. Many similar stories are current among the natives. - Chicago Inter-Ocean.

cal motives were at the bottom of de -A great many good men have crimes. An official commission of is missed the top of the ladder by atvestigation has been dispatched for tempting too many rounds at the first Belgrade to Pirot. - Glasgon Mail jump .- Shoe and I eather Reporter.

PUNGENT PARAGRAPH -The Englishman who mid! ging was "'armless" was at armful .- Life.

-The first frost is twice at brings down the c'aestant and the quito. - Puck.

-Man attrib bad luck and - Whitehall

-In the way of 14 good corn there is nothing of equal a tunless it be a tight those -4lbs -Speaking observe a clera. notice on a store -Language was pearle to e

thought. A dude has no me for guage, then, for he has no thou conceal. - Tia-Bits. -A man was arcaign d on See for robbing hackmen. He may criminal of extraordinary Philadelphia Inquirer.

-When a man attempts to an bands over a hotel register is time to inquire into his men tion. - Hotel Mail. -There is no law to prevent a making a fool of himself. If the

some men would be at a less pass the time. - Texas Siftings. -Two women have been be get along pleasantly in the same for several months, but it who that one of them was bis in

other was deaf and dumb. -First Citizen-"I say, Jack a queer April, isn't it?" zen-"Yes, rather; but is it any than usual?" First Citizenso-a good deal; I haven't lest a

umbrella yet!" - New Haves New -Her Father-"Young man, I object to your calling occasion my daughter, but you musta'te late. It was twelve o'clock her before you got away." Young "Got away is very good, sir. In had to stay or get my cost torn."

-Customer (to grover)-" s the market quot ions that qui so? (To clerk)-James, mark butter up five cents." Custo "The price hasn't advanced it dropped." Grocer-"Oh! (to clet Never mind, James." - Texu Sin

-A Sweet Maid's Query.-She kissed her pug-with haste arose And rained upon that creature's nose A storm of osculations sweet: "he swell reclining at her feet stemarked, as he looked sideways up "I wish that I'd been born a pup." Then, smiling coldly from her throne. She said: "And were you born full or

-Once upon a time a lion thorn in his foot. He was bell lustily, when a poor peasant, attn by the animal's cries, came along extracted the thorn. The lies quite overcome with gratitude. he: "Good friend, you have done a service which I can not forget. never consent to part with so g friend." And he devoured the pe on the spot. Moral-There are folks who will use their friends they are worth. Better let spill howl till they burst. They're sel it. Help them once, and they're mortgage on you for all timechange.

## SERVIAN MURDERERS.

Much sensation has been candle

They Confess to Having Destroyed & Lives of Sixty Persons.

the detection in Servia of an organ band of murderers. The discovery made under remarkable circumstant About a fortnight ago a Russian care merchant named Abramovics and at Pirot to make his annual purcha He took up his quarters at one di large inns of the town. Toward o'clock, while he was making me with a party of friends, two gendaris called at the inn and reques Abramovies to follow them to the Pa fecture. Although Abramovies of hibited his passport in proper orle he was taken by the gendarmes to " police station. When he arrived the he was shown a warrant of arrest sued against him charging him spying. He was told that he wood have to be taken to the Balgaria frontier, and that his effects had be sent on before him. He was put is a one-horse conveyance, but install being driven to the Bulgarian front he was taken to the intrenchment murdered, and robbed of one thousand five hundred napoleons. On the if lowing morning some peasants for his body. Information was gired ! the Deputy Prefect, who forthwithed troops to arrest the Lieutenant of part armerie and all his men. prisoners are said to have confis that during the last two years people have been murdered is same way. Twenty-two gold water and a large number of rings lockets were found at their house Two correspondents of French are papers who were at Pirot during in war are supposed to be among the victims. It is believed that a ring longing to one of them has been feet and a wax impression of it has be sent to France. One of Prince Ale ander's grooms, on his way back Germany, was murdered by the see band. A telegram from Semiin siste that the Lieutenant of gendarmers der arrest charges the Deputy Profes of Pirot with complicity in the criss
He has likewise been taken into custof and is reported to have confessed, leging that in the case of Abranette and of another murder he acid a superior orders. It would appear from the accounts received up to a present that in several instances page