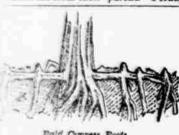
THEEFLY AND LIGHT QUESTION

WHITTEN FOR THE DISPATCH.

store, after all, is the great contriver. all the material there is, with all the time there has been, she has made it her task to find out how everything that lives can come to its best estate, and do its work in the easiest way. As rain falling upon a mountain peak asks no guideposts to show it the shortest path to the valley, so the rootlets of a flower need no gardener to bid them thicken and multiply along the line where they find most food. On the arid plains of Arizona a vine, in burrowing downward for moisture, will often have ten times as much growth within the tte ground as above it; in a fertile, well-watered soil the vine will descend into the earth hardly

bald cypress in a swamp of Florida as successfully. Finding its sustenear the surface, it spreads out its in horizontal lines and at no great in the soil. Every wind that stirs roots but promotes their thrift and thens their anchorage. A wealth of floats on the swamp water. In seeking the roots throw to the surface the ist the assaults of tempest fills the re designer with admiration. When rogeny of such a tree come to occupy drained lands, the "knees" would be s and do not appear. The Survival of the Fittest.

the transmission of life from the stem plant to its seed, a thousand influences conveyed. Little wonder that their to poise should be unsteady, that perthe new shrubs or trees should be a different from their parent. Perhaps



arent is a cactus and one of its offhas a fleshier stem and less surface as other member of the family. In a sand parching atmosphere this will plant to get the best foothold and in it with most vigor. And the very rivals assures this bettered stock a

multiply its kind.
the vegetable kingdom so in the field of animal life. Nature has form the ear; air she has employed lop both wings and longs; water, tersal carrier, has molded fin and Darwin, whom no observer of our exceeded in acuteness and patience, thousands of cases the shape of leaf and flower, the form of beak, had come about in doing and beak, had come about in doing work with the least possible effort in ollowing the line of greatest profit. Inventors as Conscions Imitators.

but a few years since men of co he their chiefest teacher. For ages ad gone on stumbling in the dark, as as not through sheer accident hitting a new device of value, and confining view rather to what other men had han extending it to what nature was around them every day. A change the upon them, and to-day they in-ewith conscious aim: How does nature see light? How does she group her together? How does she mass her together? How does she mass her How can we imitate her? What, if er we may follow in them, are the

y striking is it, as we look back upon to see how much of the loftlest blind to what nature held Architecture had prothe beauty and variety of the are before it spanned door or winh an arch. Yet the outline of the could lend the building art new sa well as grace. Modern archiof engineers, whether knowingly or look. In rearing their loftiest they employ evlindrical columns These colums are always as also are the engine shafts of the teamers, for experience proves that eylinder has the strongest form given mass of supporting material a in one's arm or leg, so that, withing beyond human anatomy, the in-and architect could long ago have a hint of no little value.

Leason of Elastic Cartilage. bone is joined to bone is scarcely structive. As they move upon one or an elastic cartilage cushions sudden a and prevents the harm and hurts its might inflict. On the railroad be-Boston and Lowell the ties were at hope blocks of granite. Strong and be enough they certainly were, but ladded elasticity. The locomotives are as they reased over them were so haken that the stone ties had very to be discarded for wooden ones. To rease their sharp vibrations powerful - are fastened beneath cars and enand to lessen the jar in starting and ge spring buffers of stoutest steel. e theodolize and the sexuant, in cerat the oddine and the sextant, in cer-bring presses, and in the geometri-of the bank note engraver, we find and socket joint which permits uni-motion. The shoulder and hip joints c as free to move in any direction, boy surfaces are perfectly lubricated ellente fluid supplied just as it is

a pumps were first provided with to direct the current of water hither her, the inventor was no doubt very his achievement. In the he breest, in his own veins and were valves engaged in the same ightly directing the flow of blood, upder kind of pumps, which linger here in our farmyards, the action v. the stream ebbing and flowing ment to moment as the arm of th ives and fulls. Quite as jerky would tide of the blood were not the walls afteries highly clastic. Their clasthe same purpose as that of o equalize and stead y their flow.

re Postman Gun and the Heart. instion of the heart brings out the le of its structure, curiously paralmodern invention. So powerful explosive charges used in the great modern wariare that no mere inthickness in the metal would pre-To avoid this peril object of the ingenious method of seture introduced by General Rod-In this process a current of water lion delicate fibrils comparable in structure brough the core of the gun metal to the columnar organs of the electric cel.

ATURE'S INVENTIONS.

Rey to Many a Problem With Which Weak Man Is Wrestling.

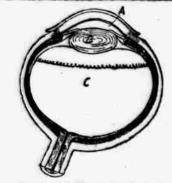
STOMACH AS A GENERATOR From the Fuel.

as it lies in the mold, and the gun barrel is permitted to cool from its outer circumference with extreme slowness. A gun cast in this way may be regarded as a series of cylinders, the outer ones of which are successively shrunk on the inner; as these inner ones are thus strongly compressed the force of compression is added to that of the metal's powerful cohesion, and so tremendous explosive forces are safely resisted. At the same time the outer cylinders of the gun are in a state of tension, that is, they would fly apart were they of less tenacious metal. At a distance as they are from the discharging powder, they are still strong enough to powder, they are still strong enough to withstand as much of the strain of firing as comes upon them. In this ingenious manner the founder distributes throughout the whole mass of his metal the prodigious rupturing force of modern explosives, explosives which would rend as paper the cannon need by our grandfulner. used by our grandfathers.

The structure he builds up closely resem-

The structure he builds up closely resembles that of the heart. In its two inner parts the fibres of that organ are wound somewhat like two balls of twine, and these in turn are tightly compressed by a covering of other similar fibres. The heart has to resist no such explosive force as that which comes many a cup but in propulling the comes upon a gun, but in propelling the blood through the system it has to exert great pressure. This pressure by the ortributed throughout every part. In the frame of an ordinary man the labor of the heart in 24 hours is equal to lifting 124 tens one foot from the ground.

The Eye and Achromatic Lenses. We are familiar with the glass triangular prism which can break up a beam of sun-light into rays having all the hues of the rainbow. The ordinary simple lens is ap-proximately a prism in circular form and



Horizontal Section of the Eyeball. A. aqueous humor; b, crystalline lens;

breaks up light in the same fashion, so that around its edges, especially if the lens be thick, we can observe a circular fringe of colored rays. This fringe in the telescopes of Sir Isaac Newton gave the philosopher of Sir Isaac Newton gave the philosopher great annoyance. Making some rough experiments, he concluded that the defect was without remedy. Had he but known it, the anatomy of his own eyes could have shown him how him how to banish the vex-

atious colored fringe.

Let us see how Dollond, the first optician who succeed in making achromatic or colorless lenses, went about it. Ascertaincolorless lenses, went about it. Ascertaining that crown glass dispersed or scattered light only half as much as flint glass, he united a lens of the former to a lens of the latter, obtaining a refracted or beut beam of light almost unchanged in its whiteness. Compound lenses on this principle are provided in all the best telescopes, microscopes and cameras. In the eye light passes through the three different media on its way to the retina, and the refractive and dispersive powers of all three so vary and harmonize that the image is impressed in its true tinta. Employing three lenses ground from different kinds of glass, Prof. C. S. Hastings, of New Haven, Conn., has succeeded in improving the telescope 23 per cent in sharpness of definition and in purity of the color of its images. With achromatic lenses and a dark chamber, or camera,

in the throat, the larynx, the vocal cords vibrate in an identical way. When we sing a particular note into an open piano, whose strings are free to vibrate, the string capable of giving out that note at once responds. In the ear is the delicate, graduated structure known as the rods of Corte which there is a structure when the rods of Corte which there is a structure when the rods of the structure whom the rods of the structure when the structure was the structure when the structure when the structure was the structure was the structure when the structure was the structure when the structure was the structure was the structure when the structure was the structu which there is a good reason to believe, vibrate in like manner with the impact of sound waves and so give rise to our auditory

From speaking and hearing let us turn to From speaking and hearing let us turn to the process of breathing. Every time we inflate our lungs their tissue performs an operation which baffles the skill of me-chanic or chemist to imitate, except with enormous waste. Air is made up of oxygen and nitrogen mechanically mixed. Oxygen alone subserves our vital functions, and from air our lungs part it and pass it into the current of the blood. To overcome the force of diffusion, which holds together the constituents of a cubic foot of air, requires an exertion equal to lifting 1,400 pounds one foot from the ground. This labor is not



Cuban Firefly, Life Size performed by the lungs as mechanical work, but the equivalent of it is expended by the lung tissue, considered as a delicate chem-ical apparatus. It would mean a great deal to the arts if this power of separation could be imitated in any simple, feasible way.

In ordinary combustion a volume of nitrogen four times the bulk of the combining oxygen has to be heared, not only reducing the temperature of the flame, but wastefully carrying off as much as half its heat or even more. A supply of oxygen by itself would at once give the chemist and the metalworker a heat from common fuel so intense that their chief anxiety would be to find building materials refractory enough to answer for their furnaces.

Chemical Work of the Lungs. And oxygen is important in other applications. In the purification of illuminating gas, in fermentation, in bleaching, and scores of other chemical processes oxygen is so valuable that, dear as it is, its use is constantly increasing. Cannot ingenuity devise some copy of the lungs, chemical or mechanical, or both, and give the world this gas at a cheap rate for a thousand new purposes? Besides the process of separat-ing oxygen from the atmosphere our vital organs are every moment carrying on chem-ical changes of great subtlety. The elabical changes of great subtlety. oration of living tissue is a process of transcendent interest to the physiologist. t is equally fraught with instruction to who would build compounds from their elements, to the engineer who

motive power with less than the enormous waste of current methods.

The science of electricity, so marvelous in its recent triumphs, was born but lately into the world because the gymnotus, or electric ecl, had not been intelligently dissected. Its form discloses the very arrangement adopted by Volta in his battery-layers of material insulated by non-conductors and surrounded by slightly acid moisture. The characteristic peculiarities of this singular fish are not without analogy in the human frame. In the muscles which bend

These fibrils respond to electrical excitation in so marked a degree as to suggest profound physiological similarities. And what adds to this suggestiveness is that the cel's columnar layers and the human Sbrils are similarly affected by strichnine and curare. The Stomach's Conversion of Energy.

At such a point as this science seems to be nearing an understanding of the great question. How does food produce work in the animal system? At a temperature a little higher than that of atmospherio air, and very much lower than that of the steam ejected from our engines, every process of nutrition and muscular exertion takes place. And be it observed that no steam engine yet constructed, however carefully designed, approaches the animal economy in efficiency. Perhaps nature converts the force resident in food into useful work, not through the medium of heat, but through that of electricity. How it all happens has only to be comprehended to lengthen the life of every coal mine in the world, perhaps as much as twice. At such a point as this science seems t

And far below the bird in rank are crea tures whose capacities, if successfully imitated, would greatly improve the lot of man. When the wax candle gave way to the gas jet, light brought with it only three-fourths as much heat as before. When three-fourths as much heat as before. When the gas jet in turn makes way for the incandescent lamp, ted by the electric current, the accompaniment of useless heat falls to one-twenty-third as much as formerly. In some of the best are lamps it is estimated that the heat rays have been so reduced as to represent no more units of force than the rays of light. One-half, therefore, of perfect efficiency has been attained. Far otherwise is it with the incandescent filament, whose radiance means but one part light to 11 parts heat. This loss, be it remembered, has to be paid in addition to the heavy tax levied by the steam engine as it converts its fuel into motive power for the dynamo.

haps as much as twice.

levied by the steam engine as it converts its fuel into motive power for the dynamo.

The electrician, for all his complexity of apparatus, is still far behind certain lowly insects as a light giver. In the glowworm, and in the firefiv, especially in the splendid species which abounds in Cuba, Prof. S. P. Langley has found that light is emitted with no wasteful partnership whatever with rays of heat. How soon will genius, keen of eye, skillful of hand, read the secret of this tiny orafisman and translate it into an entiny craftsman and translate it into an en-gine for the illumination of the world?

WHAT WOMEN WANT TO KNOW.

hirley Dare Answers some of the Que tions Recently Sent to Her. Among the questions sent to Shirley Dare by readers of THE DISPATCH are the following which she has found time to

Mrs. A. R.-Please inform me how to prepare a sulphur bath at home. A celebrated writer on the skin directs as follows: Boil six ounces of sulphur 15 or 20 minutes in two gallons of water, that is two gallons after the boiling is finished. Have ready a cane-seated chair, a hot bath for the feet and a large blanket. A rubber blanket to go over this is advisable. Pour the sulphur water into a large earthen or tin pan, raised from the floor by bricks or footstools under the chair, and put into the water half a brick, heated red hot. Best the patient undressed on the chair, and wrap the blanket round the chair, overing the person all but head and face. This keeps the steam up 20 minutes, after which the patient is wiped dry with warm towels and put to bed as warmly as possible to avoid taking cold.

Miss T.—I should like to try sulphur to clear the complexion, but fear it will reduce my already insufficient flesh, Is it used ever upon the skin, or only internally? A celebrated writer on the skin directs as

duce my already instances.

Inspersive powers of many the the image is impressed in its true tints. Employing three lenses ground from different kinds of glass, Prof. C. S. Hastings, of New Haven, Conc., has succeeded in improving the telescope 23 percent in sharpness of definition and in purity of the color of its images. With achromatic lenses and a dark chamber, or camera, our photographic instruments closely resemble the eve. Indeed, physiologists are of opinion that when we see an object the impression is due to a succession of evanescent photographs formed upon the retins so rapidly as to seem a permanent picture.

Piano Strings in the Ears.

Pianos, violins, flutes, and other musical instruments yield their notes by the vibration of strings, pipes or reeds of definite length and form. Across the box-like organ in the throat, the larynx, the vocal cords wibrate in an identical way. When we sing a particular note into an open piano, whose strings are free to vibrate, the string whose strings are free to vibrate, t

Many persons, doctors among others, have approved of wine of coca as a tonic, but more conservative practitioners are shy of it, except in emergencies where there is need of immediate support at any cost. From my own experience I should not advise it for

nervous people, as the feeling of being gone to pieces in its reaction is horrible. Still it does not affect persons alike. J. W. B. and 20 others—I am informed J. W. B. and 20 others—I am informed in a letter from Philadelphia that the firm making bread and other preparations raised by steam have gone out of business. It is to be regretted that some enterprising and equally conscientious and clean manufacturers cannot be found to take the place of these honest Quakers. What purports to be health bread is sent hundreds of miles

be health bread is sent hundreds of miles regularly to invalids, but nothing so far compares with the steam raised bread.

Mrs. Nellie W.—I am getting the horrible crowsfeet and some gray hairs; I live in a hotel, and am constantly thrown in company, and though my husband anys they don't show a bit, my mirror says they do, and badly, too. I never knew how to "make" " and have to have everything very simple. Can't you help me to a hair dye, not injurious, to something for the deep lines and downy chin? Husbands and sons ought to tell the exact

ruth, even if it is uncomplimentary. Brothers do as a general thing, and a woman knows she can depend on their opinion. It is no good for one's family to practice polite little deceptions. They simply give them-selves away, for deceit doesn't hold against our look in the mirror—what a blessing that the glass has no tact! To prevent gray hair, try the vellow vaseline and petrola-tum dissolved in hot brandy as a daily ap-plication, brushing it well into the roots.

plication, brushing it well into the roots. It is not necessary to saturate the entire hair with it. If the gray hairs are few, they can be brushed separately with hot staining fluid. But the making of hairdye or stain is better left to practical hands. For the crows feet, don't stay up late nights, and apply fine sponges wet in warm milk mixed with as much rosewater. Hold the sponge to the wrinkles five minutes at a time, and do this often. Lint mixed in this mixtura do this often. Lint mixed in this mixture and bound on the face half an hour freshens it remarkably. The milk and rosewater should be mixed only as used. Send me a stamped and addressed envelope, and I will direct you to something to help the downy chin. If the chin can be kept clear of down by a simple application nightly repeated, most women will consider it a boon. Stiff. stubbly hair on the face I believe is related to internal disease, as much as acne, and to be treated by medicine and outward appli-

cations together. SHIRLEY DARK

SAD NEWS FOR THE POETS.

The Prize of \$5,000 for a Columbian Rhymster Has Been Withdrawn. Some time ago a New York firm offered to put \$5,000 in the hands of Director General Davis to be given to the person who should write the best poem or song to read or sung when the buildings of the exposition were dedicated next October. Ever since the tact became known long-haired poets and musicians all over the country have been flooding Colonel Culp, of country have been flooding Colonel Culp, of the Ceremonies Committee, with inquiries about the prize. They wanted to know whether the money was still up. The other day the Committee on Ceremonies adopted a resolution that they would not entertain any such offers from firms or corporations that wanted to encourage the production of poetry. Copies of this resolution will be sent at once to all the poets from Kewanee, Ind., to Skowhegan, Me.

PARLOR furniture reuphlostered. HAUGH & KEENAN; 33 Water st.

SUNDAY IN URUGUAY.

It Is a Day of Recreation, With a Little Religion Thrown In.

RACES, SALUONS AND THEATERS Are Taken as a Matter of Course, and

HOW NATIVES MAKE THEIR BUTTER

Almost Anything Goes.

CORRESPONDENCE OF THE DISPATCH. MONTEVIDEO, Feb. 23 .- Our last day in

From the aspect of festive Montevideo you would never dream that this is the Lord's day, for a wider contrast from quiet church-going Sundays at home could hardly be imagined. Here everybody goes to church most religiously, but after mass in the morning and vespers in the evening they consider their duty done to heaven and proceed to enjoy the blessings of this world after their own fashion. The plazas are thronged with smiling people, promenading to the music of military bands. The retail shops, saloons, etc., are open all day and largely patronized. The race course is in full blast with its gambling booths and they accessories. To night the theorem will other accessories. To-night the theaters will contain the largest nnd most fashionable audiences and present the best perform-ances of the week, and there will be public balls and private parties and other social gatherings all over the country.

gatherings all over the country.

The customs of Spanish America, as of nearly all the countries of Europe, in regard to Sabbath keeping, are very different from our own, which are still somewhat burdened by the ideas of our Puritan ancestors, who fined a man \$5 for the unbecoming levity of kissing his wife on that stern and awful day, and construed the love of God to mean relentless persecution of all who held other opinions. Sunday in the Great Park,

Acting upon the advice of a dear old lady I knew in New England—"My child, when you are in Turkey do as the turkeys do"—we will spend this beautiful summer Sunday a la Uruguayan and follow the crowd in the sunshine. After a few turns in the plass, most of the Montevidean world hies to El Prado, an extensive pleasure garden about three miles from the city, reached by tramway through the fashionable residence suburb known as Paso del Molino. The

Montevideo's population, and swarm out on Sunday to trip the light fantastic toe to the music of drums and flageolets. The Dances Are Only Posturings.

Fantastic indeed are their national dances, which seem to consist mainly in posturing, to the slow, plaintive, national airs. There is also a French restaurant, Spanish billiard rooms, German beer sa-loons, Yankee shooting galleries, no end of ooths where the native cana is sold, and all manner of apparatus for outdoor games, which the young and giddy indulge in, while their elders loaf placidly upon benches under the trees. Many families bring their lunch baskets prepared to spend the entire day and camp in gipsy fashion. Notwithstanding the number of cana stalls we are surprised to see that there is no intoxication, and everybody is harmlessly happy—apparently as much at peace with the world to come, according to their lights, as with this life here below. One thing may be truly said of our easy-going South-ern neighbors, that though everybody, to a man, woman and child, imbibes freely of wine, chicha, cana, or some other form of with a recklessness and persistency that would astonish a Northern black-leg—yet nobody gets vulgarly drunk, and the gaming vice is not made a secret one, to be steathful indulged by evading the law in darkened corners.

Everybody Gambles Openly. Priests and sinners, paupers and ladies of high degree, alike take a hand at baccarat, roulette, and other games of chance, as undisguisedly as they take their dinners, quite as a matter of course; and very much astonished would they be should some good missionary come along and intimate that there is wickedness in the cards, and in the glass a serpent that stingeth like an adder. They have never heard such (to them) unique doctrines in all their lives, and could not be induced to believe them. The aristocratic classes, of course, drink only imported wines at table, and the custom that so largely obtains in the United States of serving coffee with the soup and ice water all through is a barbarism unknown Spanish America.

Cana (pronounced can-yah), the national Cana (pronounced can-yan), the national beverage of Uruguay, is the termented juice of sugar cane, and sells at the rate of two cents the goblet. As the goblets are the size of a German "schooner," and the stuff contains about 90 per cent alcohol, a spree is within reach of the poorest. Yet the fact remains that there is absolutely no intervance cannot admit the way, he intemperance compared with what may be found in our own country, where bad whisky abounds and well-meaning organizations have bestowed upon it the fictitions allurement of forbidden fruit.

The Foreigners are the Drunkards. On ordinary days drunken men are sel-dom met on the streets of Montevideo; the dom met on the streets of Montevideo; the exceptions—by no means numerous—may be found on the evenings of patriotic or religious fiestas, when cans flows more freely. And sometimes, on such momentous occasions as the birthday of the Queen or the Prince of Wales, the midnight tranquility is disturbed by loyal Britons, winding fence-rail fashion home from their club, making the welkin ring with songs of borrowed patriotism, such as "John Brown's Body," and "Marching Through Georgia." Paso del Miolino, the aristocratic suburb, is distant about half an hour's ride by trainway from the central cathedral, and trainway from the central cathedral, and Montevideo's wealthiest merchants and officials, and a display of luxurious extravagence akin to that of the Roman villas of he golden age, as described by Horace The casas are mostly one-storied, of quaint est architecture, and gaudiest paint, each the, shell, appearing to out-Herod its neighbors in grotesque effects. The styles of architecture through.

include severest Moorish and florid Gothic, Chinese, Indian, Hindoo; and some present rare combinations of all known styles, with a good deal of originality thrown in.

All are surrounded by statues, fountains, filled with preserved ginger and similar gruel paths and marble benches, and so genial is the climate that flowers preserve the color and fragrance from year to year, making the Psao a continuous garden of perpetual spring.

Do you see that man callenger pelimell

Do you see that man galloping pellmell with infinite clatter down the street, dragging a strange brown bundle behind that bumps over the stones like a huge rubber ball? You would hardly imagine that he is making butter—now would you?—but such is the case. All the butter that is eaten in Uruguay is made in that same primitive manner. The modus operandi is as follows: as follows:

MONTEVIDEO, Feb. 23.—Our last day in Uruguay—and Sunday at that! I wonder why it is that short trips of especial interest, such as this between Montevideo and Buenos Ayres, must always be made at night, the world over, despite the protests of disappointed travelers who thus find themselves deprived of views they came far to obtain? Is it from philanthropic motives on the part of steamship companies to spare passengers the pangs of seasickness by sending them straight to bed, or on grounds of economy concerning meals; or is darkness preferred because "deeds are evil?" Whatever the reason, it prevails in these countries as universally as in our own.

The steamer that is to convey us across the broad mouth of La Plats to Argentine's capital lies waiting in the harbor, but not a wheel will she move until nightfall. Let us "kill time" in the interim by gathering up the scattered crumbs of information we have gained from many sources concerning this interesting little republic and serve them in a Sunday olapodrida.

A Monetel Way of Making Butter.

The dairy man pours the milk (warm from the cow, without straining), into an inflated sheep skin, which has the wool side turned in. He ties it securely, hitches it to his saddle by a good strong lasso, and gallops off to town—perhaps five or ten miles away, with the sack bumping along behind him. Of course, the churning is thorough, and by the time his destination is reached the butter is made. Then he has only to go from door to door among his patrons, laden-ing out desired quantities with a wooden dipper. To be sure it does not taste much like the lubricator we are accustomed to at home, being white as snow and resembling curd cheese; but it has the merit of being sweet and without the abomination of salt, when the second in the cow, without straining), into an inflated sheep skin, which has the wool side turned in. He ties it securely, hitches it to his saddle by a good strong lasso, and gallops off to town—perhaps five or ten miles and by the time his destination is r A Novel Way of Making Butter.

Berlin, for she boasts of 23 with a popula-tion of barely 125,000. These papers are not published so much for the dissemination of news as for the propagation of ideas, and, therefore, they give about six columns of editorial to one of intelligence.

Every Politician flas His Organ.

The reason for having so many newspapers is because every public man requires an organ in order to get his views before the public. The editors are ordinarily politicians who devote their entire time to the discussion of political questions, and expect the faction to which they belong to furnish them the means of living while so employed. Each paper has a director who holds the relation of editor in chief; while a subeditor is man-of-all-work, edits copy, looks after the news, reads proof and stays around the place to keep the printers busy. There is never a staff of editors or reporters as in the United States, and seldom more than two men in the office; in fact there is no such thing as a reporter in all Spanish America, what little news there is being gathered by the editors. The director generally has some other occupation. He may be a lawyer or judge or a member of Congress, and his political sympathizers are expected to assist him in furnishing editorials. At the capital of each of the South American Republics there are one or more publications supported by the Government for the promulgation of decrees, decisions of the courts, official reports and laws passed by Congress. The paper which sustains the administration that happens to be in power receives financial assistance, or a "subvention," as it is called, from the Government. This usually comes in the form of sincoures to the editors, who receive generous salaries from the public treasury for their political and professional services.

They issue When the Forms Are Full.

Excent in a few of the larger and more Every Politician flas His Organ.

They Issue When the Forms Are Full. Except in a few of the larger and more enterprising cities there are no regular hours of publication, but papers are issued at any time from 8 o'clock in the morning till 10 at night, whenever there is matter \$10. The printers are mostly natives, although a few Germans are found. There are no typographical unions or trade organizations in South America. In the larger cities the papers are delivered by carriers and sold by newsboys on the streets; but in smaller towns they are sent to the postoffice to be called for by the subscriber as regular

mail. The subscription price is inordinately high—seldom less than \$12 per annum and often double that amount. In some of the alleged Republics there is a censor press, to whom a gopy of each edition is submitted before it is published. This sometimes causes inconvenient delay, if the censor happens to be out of town or otherwise engaged, for the issue must be with-held until his august signature is placed

upon each page of copy. The Freedom of the Press. Although "freedom of the press" is coasted, cases of imprisonment are common boasted, cases of imprisonment are common of editors who have too freely spoken their minds in opposition to the prevailing powers. Journalism has its disadvantages here, for the party in power to-day may be out of power to-morrow and the editors who supported it clapped into prison. A case in point was that of the editor of El Campson, in Lima, Peru, who, a few years ago, published an attack upon the Congress of that Republic which was very mild compared with articles that are fremild compared with articles that are frequently directed at our law-makers; but he was imprisoned six months for it, and his

machinery, type, etc., confiscated and sold for the benefit of the Government. A street fight is the editor's delight, and A street night is the editor's delight, and although an account of it may not appear for several days after the occurrence, the writer gives his whole soul to its description. The following is a literal translation of the

A personal encounter of the most trans-cendent and painful interest occurred day before yesterday, in the street of the Twenty-fith of May, near the palatial resi-dence, of the most excited and illustrious Senor Don Comans, and was wienessed by a grand concourse of people, whose excite-ment and demonstrations it is impossible to adequately describe.

A dog fight would be treated in precisely the same manner. Everything is "surpassing," "transcendent." The grandiloquent style is not confined to newspaper writers. In a hotel bathroom the following is posted: In a notel outstroom the following is posted:

In consequence of the grand concourse of distinguished guests who entreat a bath in the morning, and with the profound consideration for the convenience of all, it is humbly and respectfully requested by the management that the gentlemen will be so courteous and urbane as to occupy the smallest possible time for their ablutions, and that they will be so condescending as to remove the plug while resuming their garments. carments. A North American landlord would have

come to the point in six words, "hurry, and pull out the plug." FANNIE B. WARD.

HOW TO BOIL EGGS.

The Right Way is Not to Boll Them at All. Strange to Say.

Our woman-and her household ways are the wonder and envy of her friends-says that the right way to boil eggs is not to boil them at all. First put the eggs into a wire basket with a tall handle; that saves the time and vexation of fishing them out with a spoon when cooked. Then set the rest of eggs in a kettle or other vessel with cold water enough to cover the eggs—not hot water, or warm water, but cold water. Set the vessel over a brisk fire. Do not let the water boil, only just "come to a boil," and at that particular time-not before-not later-the eggs will be cooked as they

should be. should be.

Remove the basket of eggs by the tall edge handle. Spread a napkin over a deep dish, lay in the eggs and fold the four corners of the napkin over them and serve. If these directions are followed exactly the eggs, when broken, will roll into the cups like balls of soft jelly, nothing adhering to the shell, the entire egg thoroughly cooled and delicate and tender through and

IN THE BULL'S EYE.

A Veteran Marksman Tells How to Place Revolver Bullets.

CORRECT POSITION IN AIMING The Secret Is in Pulling the Trigger With

Steady Pressure. RECORDS OF EXPERT AMERICANS

WRITTEN FOR THE DISPATCE.



UDGE GILDER SLEEVE Dever said a truer thing than he did one day on the bench in sentencing a man for shooting some one: "I am more afraid of a revolver in the hands of a careless man than I am of a live rattlesnake." And so is every man who has had ex-

who has had experience with fivearms. There is the nervous man, who fidgets with his pistols, and points it first at one man and then at another without meaning to do so. The nervous man is had enough, but the absentminded man, who points his revolver at you and forgets all about it until a second or so after he has blown your head off, is much worse. The worst of all pupils, though, is the man-who-knows-it-all.

the man-who-knows-it-all.

The best revolver in target shooting is of American make, 44 caliber, army pattern. The regulation indoor range is 12, 25, 50 or 75 yards; and outdoor, 100 yards. The target is a standard decimal with a bull's eye one and one algebra, in the same algebra, in the same and one algebra, in the same alge one and one-eighth inches in diameter.
Round bullets should be used and light charges of powder when but beginning practice, and up to 20 yards.

How to Pick Up a Weapon.

When a man walks up to the counter on which the weapons rest and picks up a revolver, let him be careful to catch hold of the barrel with one hand and the handle with the other, and, before he does anything else, open the pistol and see whether or not it is loaded. Never take another man's word that your pistol is not loaded. I have seen more than one man knocked down, and quite rightly, too, for pointing a really empty pistol at another man. I give you, too, another rule that the expert revolver shot always practices. He never touches the trigger until he shoots.

When shooting stand on both legs, squarely with the heels a little distance apart and on a straight line with each other. How to Pick Up a Weapon,



bold one or two or possibly three shots, but you will soon overtax yourself and at the end of half a dozen shots your hand will tremble. There is no muscular exertion about shooting a revolver except that of about shooting a revolver except that of holding it in the hand. A revolver is not a 20-pound dumbbell. You don't have to strain yourself when you aim it at a target, and the easier and more natural you pose, the less strength you exert, the better will be your aim, and the longer your endurance. There are several standard ways of stand-ing, differing one from the other as to the pose of the body above the waist. The Way Bob Acres Stood.

The old way came to us from France where it originated during the days of the duel. The marksman turned his body sideduel. The marksman turned his body side-ways toward the target, crooking the right arm so that the slow covered the lungs and he ducked the head so that the handle of the weapon hid the face before the eyes. He shielded as far as possible his vital parts. This was agreat pose in its flay and was used by many noted shots. But the newer systems of this country have been proved to be made better for accurate markmanship. There are three recognized ways of standing used in america by the best shots. One way is to turn the body from the waist, sideways, extending the pistol arm almost straight. The second method is to turn the body partially as though the marksman was posing for a three-quarters view at a photographer's. The third way is to face the tarret directly and extend the arm in front of the eyes.

tographer's. The third way is to face the tarnet directly and extend the arm in front of the eyes.

There is only one way to hold a revolver correctly. The barrel should be on a straight line with the forearm. Cover as much as possible of the handle with the paim of the hand. Don't grasp the handle as a parrot clings to its perch. Let the palm and fingers spread over the handle generously. The thumb should be on a straight line with the barrel, extending atong the metal by the side of the lock. Pulling the trigger is the bone, marrow and sinew of the art of shooting. No matter how the pistol may be held, no matter how the markeman may stand, he must pull his trigger in the right way and at the right moment to hit the mark. The proper pull is steady, cautious—an equal pressure from beginning to end. Follow this course and with practice you will be able to discharge the weapon at the exact instant when the aim is correct. One of their most common faults is called "finching." The marksmen stand correctly, hold their pistols in the right way, take a good aim, but when they come to press the trigger they shut their eyes and dodge.

Covering the Buil's Eye.

In sighting a revolver draw the two sights and buill'a eye as all in. Some men do this

Covering the Bull's Eye.

In sighting a revolver draw the two sights and bull's eye on a line. Some men do this as they raise the firearm, and this rule has been adopted by the majority of experts. But there is still a respectable number who take sim in lowering the revolver. To my mind, and I think the records will bear me out, the American revolver shots are the best in the world. Such marksmen as Pierre Lorillard, William M. Chase, Ira Paine, Major Pryor, H. W. Wickham, Mr. Winans, and others make shots that are absolutely paralyzing. They can drive tacks with pistol balls, light parlor matches without breaking the match, knock the ashes from a cigar, wheel and fire at the word, scoring the bull's eye five times out of ten, split playing cards turned edgewise toward the pistol, cut heles through 3-cent pieces, and hit suspended musket balls. Frank Lord is one of the mest remarkable shots I have ever seen, in that he can shoot better when he is exhibiting his skill before his friends than when he is practicing alone. I have seen him shoot through the ring of a watch—an old-fashioned watch with a large ring. He used a 23-caliber pistol, but still the feat was wonderful.

You often see cowboys in shows stand and

—an old-fashioned watch with a large ring. He used a 22-caliber pistol, but still the feat was wonderful.

You often see cowboys in shows stand and rest the pistol on the left elbow joint. They sit down and rest their elbows on their knees. They lie down on their backs and, stooping over, shoot between their legs. Let me tell you that none of these positions is worth a cent for practical work. The advantage of resting the weapon on the arm is to steady the aim when one fires from a horse's back. It is the old cavalry style and has just about gone out of use.

I hold that the best marksmanship is the ability to score the greatest number of bull's eyes in the shortest possible time. It is better to make a good average score for 10 or 20 shots than to make a haphazard scratch the first shot. Here are the names of some gentlemen who have fired five shots into a target in one second: George Byro, A. A. Cohen. William Kent, Allen P. Kelley, Captain F. H. Swift, Dr. J. N. Henry. They used self-cocking revolvers. But expert marksmen do not use the self-cocking revolvers for ordinary work. It is too dangerous.



TRANSLATED FOR THE DISPATCH FROM THE FRENCH OF

GEORGE SAND.

CHAPTER III.

"I lived thus many years in splendor and delight with my dear Aor. We assisted at all ceremonies and festivals; we received visits from foreign ambassadors. I was loaded with presents till my palace became one of the richest museums in Asia. None of the temples were closed to me, and I loved to enter those lofty, shaded chapels, in which the colossal figure of Gautama, glittering with gold, rose like a sun at the farther end of the niches, lighted from above. I even knew how to give offerings to the venerated idol, and how to swing the golden censer before him.

"But no earthly happiness can endure. The King engaged in a disastrous war against a neighboring State. He was vanquished and dethroned. The usurper exiled him without me. He kept me as a mark of his power and a pledge of his alliance with Bouddha; but he had neither kindness nor reverence for me, and my seryice was soon neglected.

"Aor made complaints, and the servants of the new king conceived a hatred for him, and resolved to put him out of the way. One night, as were sleeping together, they en-tered noiselessly and stabbed him with a dagger. Awakened by his cries, I tell upon the assassin, who took flight. My poor Aor the assassin, who took flight. My poor Aor was unconscious; his sarong was wet with blood. I took all the water in the silver basin and sprinkled him with it, without being able to restore him. Then remembering the physician, who always slept in the adjoining room, I woke him and brought him in to Aor. My friend was devotedly cared for, and came to life again; but he was weakened by loss of blood, and I would neither go out nor bathe without him. Overwhelmed with sorrow for him, I refused to eat, but lay always by his side.

"No search was made for the assassins. There was a pretense made that I had accidentally wounded Aor with one of my tusks, and they said they must be sawed off. The doctor, who knew quite well what to

The doctor, who knew quite well what to think about it, dared not speak the truth. He even advised my friend to be silent, rather than hasten the triumph of the enemies who had sworn his downfall.

"The civilized life into which I had been intituded as well as the history of the contract of the civilized life." enough in type to fill the forms. It seems odd to have yesterday's paper delivered to you in the afternoon of to-day, but it often occurs. Papers often quote from one another. They select their news as shipbuilders choose timber—when it is old and tough. Compositors are not paid by the 1,000 ems, as in the United States, but receive weekly wages, seldom more than \$8 or turned in disgust from the h honors still paid me as a matter of form, I received official visits with ill-humor, and drove away the dancers and musicians who

disturbed the light and hardly won sleep of my triend.
"Under a presentiment of new misfortunes, on longing recollection of my youthful years filled my heart. In my troubled dreams I saw again my assassinated mother sheltering me with her wounded body. I saw my desert sgain, my splendid trees, the river, Mount Ophir, and the great ocean gleaming on the horizon. Homesickness overcame me, and the fixed idea that I would take flight ruled my thoughts. But I must take Aor with me, and the poor fellow was hardly able to raise himself to kiss my forehead as I leaned over

him.
"One night, exhausted with watching, I slept heavily for several hours. When I awoke Aor was not on his couch, and I called him in vain. Distracted with anxiety, I rushed into the garden and looked for him rushed into the garden and looked for him by the lake. My sense of smell showed me that he was not there, and had not been there recently. I opened the gates of the inclosure and went out. Then I found that my friend was near, and I sought him in a grove of tamarinds which shaded the hill. As I approached I heard a plaintive cry, and I rushed into the copse and found Aor tied to a tree and surrounded by rascals ready to strike him. I threw them all back and trampled them under foot without mercy. I broke Aor's bonds. I took him carefully and helped him to mount on my neck, and, with the rapid and silent motion neck, and, with the rapid and silent motion of the elephant in flight, I plunged into the

forest.
"At that time the part of India in which we were was full of the strangest contrast. Luxurious civilization had unexplored deserts at its very door. It took me but a short time to reach the wild solitudes of the nountains, and when I laid down weary on the bank of a water course—straighter and more rapid than the Irawady—we were already 30 leagues away from the Burman "'Where are we going?' asked Aor. 'Ah!

I see it in your look, you are returning to our mountains. You think we are already there, and you are mistaken. We are very far away. We shall never be able to find our way back without being discovered and captured. And even should we be able to evade pursuit, we should not be able to go far before, ill as I am, I should die; and then how could you make your way to that distant point without me to guide you? Leave me here. The enemies are all mine, and go you back to Pagham, where nobody will dare to threaten you."
"But I made him understand that I would neither leave him nor go back to the Bur-mans; that if he died, I should die, too;

mans; that if he died, I should die, too; that with patience and courage we should yet find ourselves happy at home.

"He yielded to my wish, and after having rested, we resumed our journey. After several days of traveling we both regained health, strength and hope. The free air of solitude, the austere fragrance of the forests, the wholesome warmth of the rocks, healed us better than all the softness of luxury and remedies of the doctors. And vet Aor remedies of the doctors. And yet Aor sometimes shrank from the task I had laid upon him. To lead away a sacred elephant was to fall under the most cruel tortures in case of failure. He told me his fears on a flute which he had made of reeds, and on which he played better than ever. I had attained an exercise of thought almost equal to that of man. I showed what it was best to that of man. I showed what it was best for us to do by covering myself with black mud which lay abundantly at the bottom of the river bed. Struck with my expedient, he gathered the juices of several plants whose properties he knew. With these he made a dye, which rendered me, except in the matter of size, absolutely like the common elephants. I showed him that this was not enough, but that to make me absolutely unrecognizable he must saw off my tusks. He would not consent to this. I had reached my sixth dentition, and he feared that my tusks might not grow again. He thought me sufficiently disguised, and again we went on. "Little frequented as was this mountain

road, it was yet a miracle that we escaped the dangers of our enterprise. Neither one of us could have done it alone, but from the of us could have done it alone, but from the intimate reunion of human intelligence with great animal strength, an exceptional power arises. If men had known how to identify themselves with animals completely enough to lead them into the union, they would not have found in them mere slaves, at times rebellious and dangerous, and often falling short of requirements. They would have had the best of friends, and could have solved the problem of self-directing power, without having recourse to the blind force of machinery, a more feroclous and ter-rible animal than the wild beasts of the

"Although tormented by bandits, whom we did not greatly fear, with prudence and perseverence we reached the River Tenas-



He Told Me His Fears on a Flute. erim. Because the recollections which we both had of our former journey, we guided ourselves by the geological outline of the country, which in Indo-China is very sim-

ple. The mountain chains have but few ramifications and led us almost in a straight line toward the sea, down into our own pen-"We approached our old haunts with great circumspection. We needed to live alone and at perfect liberty, and were able to carry out our wish. The tribe, euriched by the sale of my person to the former king of Burmah, had deserted its but of reeds, of Burmah, had deserted its but of reeds, and the forests, cleared of wild animals by a tergible drought, had been abandoned by the hunters. We found a freer and safer home than we had yet enjoyed. Aor regretted none of our vanished splendor. He knew and loved no one but me on earth. Our long intimacy had broken down the barriers set up between us by nature. We exchanged our thoughts like two creatures of the same species. My pantomime had become so thoughtful, so sober and express-ive that he read my thoughts s I read his. He did not need words with me. I felt

him sad or gay according to the mood and inflections of his flute.

"We spent long years in the enjoyment of our deliverance. Aor had become a fervent Buddhist, and lived wholly on vegetable food. We had abundance about us, and knew neither suffering nor sick-

"But Aor had become old. I had seen his hair whiten and his strength depart. He made known to me the effects of age, and told me that he was soon to die. I lengthened his life by sparing him every fatigue and care. I brought him his food and constructed his shelter. He lost his vital warmth and no longer left contact with my body. At length he begged me to dig him a grave, for he felt himself about to die. I obeyed. He lay in it in a bed of Then his arm fell, and he lay motionless.
"I covered his grave as he had bidden
me, and lay down on it. I think I had understood his death. But I did not question

whether the longevity of my race con-demned me to survive him for a long pe-riod, nor did I determine to die. But I forgot to eat. When night was gone I had no thought of arising to bathe. I lay abso-lutely overwhemled and indifferent. When the sun rose again he found me dead.
"I have since learned that after my disappearance the Burman Empire suffered great

reverses. The royal city of Pagham was abandoned by the priests of Gautama. Buddha was irritated at the want of solicitude which the people had shown for me, and my flight testified his displeasure. The rich carried away their treasures and built them new palaces in the territory of Ava. The poor carried their buts of rattan away on the backs of their camels, to follow their masters away from the accursed city. Pag-ham had been the abode and the pride of 45 kings in succession. I had condemned her by my flight, and to-day she is nothing but heap of magnificent ruins."

THE END. 1

