SNAPS AT FLIGHT OF BIRDS.

Professor Langley Modeling Air Ship Entirely on Live Flyers.

Two tall towers, fifty feet high and about the same distance apart, have been newly erected in the zoological park in the outskirts of Washington, and visitors during the last few days have been vainly speculating as to their significance.

When inquiry is made, the guards shake their heads and refuse information; but observant persons have noticed that once in a while, when a buzzard flies overhead, two men suddenly appear, one on top of each tower, and snap guns at the bird, thereupon retiring with equal celerity from view.

The weapons are cameras, with gun stocks and triggers attached to them, to help in aiming, and the marksmen are employed by Secretary Langley, of the Smithsonian Institution, to obtain in this way instantaneous photographs of the birds in flight.

There are two towers, in order that each snap shot may be taken from two points of view, the gun cameras being connected by an electric wire in order that they may take the pictures simultaneously. Only one of the two men pulls the trigger, the other one merely aiming at the buzzard.

Professor Langley is conducting these experiments for the purpose of obtaining hints that will help him in building his flying machine. The apparatus is still housed in the Smithsonian Institution, says the Boston Herald, and nobody is allowed to see it; but some day, not very long hence, it will be brought forth, and will exhibit to an astonished world the astounding spectacle of a flying machine that will really fly—not depending on a gasbag to uphold it, like the apparatus of Santos-Dumont, but sustaining itself by artificial wings and propelled by a steam motor, light but powerful.

From the beginning Professor Langley has taken for his model the soaring bird, which is nature's most perfect flying machine. The buzzard is an example of this kind of flyer, and hence the building of the two tall towers in the Zoo Park, in which neighborhood buzzards are plentiful.

FOUR MONTHS OLD AND TALKED

Strange, indeed, are the facts connected with the short life of the infant child of Mr. and Mrs. Will Fechner, of Houston. The child at birth displayed extraordinary traits. It never cried, and exhibited an observation and mental understanding and development that was almost terrifying in a babe. At 4 months this prodigy of intellect could talk plainly and make its wants fully known. But its little frame began wasting away. The physicians who were called in shook their heads gravely and said to the parents, "You will never raise the child. The mind is too powerful. The mental weight is sapping the physical strength." They proved to be true prophets. In a few days' time the child was dead. Before its death, the news of its wonderful precocity being noised about, many people came to see for themselves the talking baby, and went away filled with awe and wonder. It was weird, almost uncanny, this thing of an infant in swaddling clothes speaking plainly, and gazing upon the spectator with eyes wherein could be discerned a depth of intelligence beyond all ordinary calculation. As the child's life was strange, so was its death peculiar. Several days ago a fierce electrical storm swept over Houston. Just as the roar of the storm came, at that very instant the child, without a murmur, calmly and painlessly went forth into the great silence of eternity.—Channing (Texas) Courier.

Constituents of Air.

The first rude shock to the prevailing ideas concerning the atmosphere was given in 1774, when Priestley discovered in it the very active element, oxygen. Two years later he added to this the passive element, nitrogen, and the two main constituents of the invisible air became captives of science. To these new elements the old ideas clung for a time. Oxygen was named by its discoverer dephlogisticated air. It lacked phlogiston, the fancied fire element, and sought it with eager appetite in whatever it touched. Nitrogen was called phlogisticated air. It was believed to be saturated with phlogiston and therefore fatal to flame. While oxygen combined briskly with almost all the elements, nitrogen refused to combine at all except under great provocation. Though intimately mingled in the atmosphere, these elements were as unlike in character as two substances well could be.

No long time passed before a third substance was found in the atmosphere, this time not a chemical element, but the compound gas, carbonic acid. While not great in quantity, it proved to be indispensable in quality, since all the world of living things is dependent upon it for existence. Inimical as it is, when in large quantity, to animal life, says Charles Morris in Lippincott's, without it there could be no life at all and the earth would be a dead and barren expanse. For the plant world gains from this gas its foundation element of carbon, and is thus enabled to lay up those stores of food upon which the animal world depends.

Rats Chew Gum.

Rats, says the Pittsburg Dispatch, have contracted the gum-chewing habit at Hoboken. Rats!

We have often wondered which came first: the thought in the widower's mind of marrying again, or the look on him.

Science and Invention

The papyrus plant which furnished the paper of ancient manuscripts is now extinct in Egypt and is found only in Sicily.

Plants for the purification of water for municipal use by passing ozone through it are in successful operation in Germany.

A Swede has made a kerosene lamp which will produce a light of 125 candlepower at a cost of one cent for each seven hours.

Though Vesuvius has been for centuries discharging steam charged with hydrochloric acid, extensive injury to vegetation in the surrounding region seems to have been unknown until last year.

Very light plates for electric primary cells are made by A. De Castro, of Berlin, by depositing metal on textile fabrics by electrolysis. Sail-cloth, for instance, may be impregnated with reduced copper for the negative elements, and with reduced zinc for the positive elements.

Mr. Hughes, our consul-general at Coburg, thinks there is the suggestion of a new industry for the pine lands of the South and West of our country in the success with which the business of extracting and preparing pine-needle oil is pursued in the Thuringen Mountains of southern Germany. This oil finds a sale all over the world, being used for pharmaceutical purposes, for medicating baths, and so on, while the dried fibers, perfumed with a little of the concentrated oil, are used for stuffing mattresses and pillows, being sent in packages to many markets.

The committee on coinage, weights and measures, in its report to the House of Representatives favoring the adoption of the metric system by the United States government, says that estimates made by the Department of Education and others show that, in the life of every child at school, two-thirds of a year would be saved by the adoption of the metric arithmetic. It is also averred, as a matter of evidence, that the metric system and its application to the solution of problems may be learned in one-tenth of the time required for gaining equal facility in the use of the English system of weights and measures.

Poisoning by shell-fish is not yet fully understood. Professor Thesen of Norway finds that it is not due to the substance on which they grow—such as the copper sheathing of vessels—but that it depends on impure water. The poison, however, does not seem to be produced by bacteria. It is concluded that the impurities of the water—even such poisons as strychnine and curare—are readily absorbed and stored away by the mollusks, but that the storing is only temporary, for mollusks in foul water are not at all times poisonous. Whether the poisons are made harmless or are returned to the water unchanged remains to be proven.

An interesting application of the freezing system in shaft-sinking is exhibited at the Washington colliery in England. When the shaft had been sunk a short distance, it was found that a layer of quicksand 80 feet in depth must be penetrated. To prevent the wet sand from flowing into the shaft, it was frozen solid. A circular row of holes, forming a ring over 20 feet in diameter, was made round the shaft, and by means of metal pipes a freezing mixture or brine, of chloride of sodium, was caused to circulate in the holes. This had the effect of freezing the sand, in a circular wall round the shaft, as hard as rock. On the removal of the soft sand in the center, the frozen wall remained intact, protecting the workmen from the quicksand behind it.

FIREMEN WHO DRIVE.

Guiding the Big Vehicles in Crowde Streets Hard on Nerves.

"The man who drives any of the vehicles belonging to the fire department," said an old fireman who is connected with a down-town station, "has no easy time of it. It is one of the hardest and one of the most trying positions in the whole department.

"Song writers may spin their little theories and arrange their little ditties in an effort to show that 'a policeman's lot is not a happy one,' but the lot of the average policeman, and I do not say it in any disparaging sense, is simply a summer dream when compared with that of the man who drives the hose carriage, the fire patrol, the hook and ladder truck or any of the other vehicles used in fighting fires.

"Humanity is curiously morbid when it comes to fires. The mere fact that it requires a squad of police and a long string of rope to keep the people beyond the range of falling walls is sufficient proof of the fact. The people are, after all, somewhat like the candle fly. They will simply rush into the flame without any apparent thought of incineration and without taking any note of the fearful consequences which are at least possible in the case of large fires. It never occurs to the average man that the walls may fall when the floors give way and that wires may be broken and all that sort of thing.

"But I was speaking about the man who does the driving. He is the fellow who wears the heaviest responsibility after all. The sound of the fire gong develops a rather strange passion in the average person. It is curiously morbid and controlling and simply forces a great many persons out into the street and they manage to get dangerously near the wheels of the engine or the truck, as the case may be. This keeps the driver under a fearful mental strain. He has to keep on the lookout for wagons, street cars, bad places in the street, curves and all that kind of thing, and, to add to the merriment of it all, men and women and boys crowd into the street and seem to make an effort to get right in front of the horses.

"It is a passion," continued the fireman, according to the New Orleans Times-Democrat. "I have had men tell me that often under the stress of excitement they simply feel like jumping out into the middle of the street, so the fire engine could pass over them. I suppose it is very much like the impulse a great many men have to leap from high buildings. But whatever the reason may be, it simply tends to increase the mental strain of the driver, and so I say his position is the most trying one in the whole department."

EXCELS AS MICROBE ARTIST.

Miss Katherine M. Montague Lends Her Art to Science.

Both science and art claim Miss Katherine M. Montague, of Baltimore, who has taken up in Philadelphia her peculiar profession. She is a painter of microbes.

Miss Montague possesses a wonderful talent for producing with the brush the minute organisms which are visible

KATHERINE M. MONTAGUE.

only under powerful microscopes and her work therefore is of great value to investigators. It has won distinction among scientists, who declare that her equal does not exist. After working for three years with Dr. J. Whittredge Williams of Johns Hopkins University she engages in Philadelphia to assist Professor Simon R. Flexner, head of the pathological department of the University of Pennsylvania Medical School. Max Broedel, the official illustrator of the university, declares Miss Montague's work excels that of any other artist in the world.

Why Cervera Nearly Escaped.

In the U. S. S. New York and Brooklyn and H. M. S. Blake and Blenheim a method of engine design is used by which the gain in economy is unquestionable. These are all large vessels with engines from 16,000 to 20,000 horse power, and they were designed with two complete triple-expansion engines on each shaft, the idea being that at anything below half power only one set of engines on each shaft would be used, and this is actually the practice in ordinary cruising.

Special objection to this type of engine was developed at the time of the naval battle of Santiago. On both the New York and the Brooklyn there was a comparatively simple coupling for connecting the two engine shafts, but it required about half an hour to perform the operation. During the blockade both the New York and the Brooklyn had been kept under half power, using only the after engines.

When Cervera's fleet came out so unexpectedly, says W. M. McFarland in Engineering, it was not deemed wise to lose half an hour in coupling up, so that it was possible to work the engines up to half power only. The poor work of the Spanish engineers rendered this lack of efficiency less important than it would have been had the enemy's fleet been possessed of skilled engineers; but the lesson was learned, and this, added to the other objections already mentioned, renders it unlikely that this type of engine will again be used.

Dressing Without a Diagram.

Rear Admiral Joseph B. Coghlan, newly promoted to that grade, who was with Admiral Dewey at the battle of Manila, brought back to the United States many stories of the far East.

"I heard of one incident," said he, "that illustrates how alert Japan has been to take on the ways of civilization.

"At an early day in the career of new Japan some ladies of Tokyo decided to adopt Anglo-Saxon dress, and so they ordered elaborate wardrobes from Paris, sending explicit instructions that the garments should be packed in cases in the order in which they were to be worn.

"These orders were carefully carried out, lingerie going into the boxes first, and so on, to the ultimate outer flounces and furbelows.

"But by some mischance," Admiral Coghlan added, "the cases were labeled wrong side up, and the guileless Japanese ladies proceeded in due time to array themselves in reverse order, with what results may be discreetly left to the imagination."—Philadelphia Post.

In writing a letter, the great genius is the one who remembers what should be left out.

OLD FAVORITES

On the Shores of Tennessee.

"Move my armchair, faithful Pompey,
In the sunshine, bright and strong,
For this world is fading, Pompey—
Massa won't be with you long;
And I fain would hear the south wind
Bring once more the sound to me
Of the wavelets softly breaking
On the shores of Tennessee.

"Mournful though the ripples murmur
As they still the story tell,
How no vessels float the banner
That I've loved so long and well;
I shall listen to their music,
Dreaming that again I see
Stars and Stripes on sloop and shallop
Sailing up the Tennessee.

"And, Pompey, while old massa's waiting
For Death's last dispatch to come,
If that exiled starry banner
Should come proudly sailing home,
You shall greet it, slave no longer;
Voice and hand shall both be free
That shout and point to Union colors
On the waves of Tennessee."

"Massa's berry kind to Pompey,
But ole darkey's happy here,
Where he's tended corn and cotton
For dese many a long-gone year.
Over yonder missis' sleeping—
No one tends her grave like me;
Mebbe she would miss the flowers
She used to love in Tennessee.

"'Pears like she was watching massa;
If Pompey should beside him stay
Mebbe she'd remember better
How for him she used to pray—
Telling him that 'way up yonder
White as snow his soul would be
Ransomed by the Lord of heaven,
Out of life in Tennessee."

Silently the tears were rolling
Down the poor old dusky face,
As he stepped behind his master,
In his long-accustomed place,
Then a silence fell around them
As they gazed on rock and tree,
Pictured in the placid waters
Of the rolling Tennessee.

Master dreaming of the battle,
Where he fought by Marion's side,
Where he bid the haughty Tarleton
Stoop his lordly crest of pride;
Man remembering how yon sleeper
Once he held upon his knee,
Ere she loved the gallant soldier,
Ralph Vervain, of Tennessee.

Still the south wind fondly lingers
'Mid the veteran's silver hair;
Still the bondman, close beside him,
Stands behind the old armchair;
With his dark-hued hand uplifted
Shading eyes, he bends to see
Where the woodland, boldly jutting
Turns aside the Tennessee.

Thus he watches; cloud-born shadows
Glide from tree to mountain crest;
Softly creeping, aye and ever,
To the river's yielding breast.
Ha! above the foliage yonder
Something flutters wild and free!
"Massa! Massa! Hallelujah!
The flag's come back to Tennessee!"

"Pompey, hold me on your shoulder,
Help me stand on foot once more,
That I may salute the colors
As they pass my cabin door;
Here's the paper signed that frees you—
Give a freeman's shout with me!
'God and Union!' be our watchword
Evermore in Tennessee!"

Then the trembling voice grew fainter
And the limbs refused to stand;
One prayer to Jesus—and the soldier
Glided to that better land.
When the flag went down the river
Man and master both were free,
While the ring-dove's note was mingled
With the rippling Tennessee.
—Ethelinda E. Beers.

All the News in the Head.

"I suppose our western country has furnished more funny things in the epitaph line than all the rest of the world," remarked ex-Congressman Lafe Pence of Colorado at the Riggs House.

"I remember one that adorned the cemetery at Leadville in the palmy days of that great mining camp. It seems that in the course of a barroom broil one Jim O'Brien, a well-known character, had his existence terminated prematurely. He was a good fellow in the main and not without friends. One of the dead man's associates, in deep grief over his demise, erected a wooden slab over his grave on which he had written in large letters:

"'Jim O'Brien departed for heaven at 9:30 a. m.'

"A local humorist happened along soon afterward and appended the following:

"'Heaven, 4:20 p. m., O'Brien not yet arrived. Intense excitement. The worst is feared.'"—Washington Post.

Pet Words in Literature.

There are pet words in literature—words which become the fashion for a time and then take rank again in obscurity. Thus in the eighteenth century we find such words as "vastly," "hugely," "the quality," "genteel," etc. "Elegant" still lingers conspicuously in America and in England at the present time especial favor seems to be shown to "convincing," "weird" and "strenuous."

The Camera in Business.

The camera promises to become as indispensable in business affairs as the typewriter. It is now being used in the reproduction of documents, statistical tables and others papers whose duplication by hand would be laborious and expensive.

It can usually be depended upon that a man who is long on hair is short on something else.

GOOD Short Stories

At a dinner recently, ex-Speaker Thomas B. Reed gave this definition of fame: "It is largely a matter of accident. Being in the right place at the right time, and doing the right thing, or, better still, making people think you are doing the right thing, is about all there is to fame."

A committee once called on Wu Ting-fang, the Chinese minister who has been ordered home, to request him to address a society connected with one of the fashionable churches of Washington. Casual mention was made of the fact that the youthful pastor of the church had recently resigned, to enter upon a new field of labor on the Pacific Coast. "Why did he resign?" asked Mr. Wu. "Because he had received a call to another church," was the reply. "What salary did you pay him?" "Four thousand dollars." "What is his present salary?" "Eight thousand dollars." "Ah!" said the disciple of Confucius; "a very loud call!"

An amusing story is told of a victim of the Johnstown flood of 1889, who, when he reached Paradise, ascended a cloud that served within the pearly gates as rostrum, and undertook to thrill his new-made acquaintances among the shades with an account of the disaster through which he had passed. He was interrupted by a gray-bearded old man in the group. "A mere bucketful—a mere bucketful!" the old fellow piped; "don't waste so much time talking of a small affair like that!" The Johnstown man resented this, and hunted up St. Peter, of whom he asked: "Who is that old codger who seems to think our flood such a trifling matter?" "That" said St. Peter; "why, that's Noah."

M. A. Brisson relates an anecdote in the Temps of a certain well-known Frenchman, an octogenarian, who spent most of his time in his younger days in Paris hunting up valuable books among the second-hand bookshops in the neighborhood of the Place St. Michel and the Place Dauphine. He rarely came across a "find," but his fervor never abated. He was a bachelor, and for a housekeeper had an extremely plain woman, who, however, had caught from her master the taste for old books, and occasionally came home with an armful when she had been marketing. One day the housekeeper appeared with a parcel of books wrapped in paper and asked her master to look at them. Among the rubbish was a small volume bound in red morocco. "What have you paid for this?" the master gasped after looking at the title page. "Thirty sous for the lot," the servant replied. "But, my good woman, this book alone is worth 10,000 francs!" the bibliomaniac went on, and the moment after regretted the unwise speech. The woman pricked up her ears, and in vain did the master try to recall his remark. "I'll give you 100 francs for it," he said. "But monsieur said just now it was worth 10,000." "I'll give you 500." "No, no." "Seven hundred and fifty." But it was no use, and, to make a long story short, the master married the bonne in order to obtain the first edition of the "Heptameron" (1559). By this time, says M. Brisson, the wife has gone to a better world, but the comtesse and the portrait of Marguerite in the little red morocco volume remain with him.

TALE OF A SEA TURTLE.

Story Told by the Barker at the Coney Island Switchback.

"It was this way," said the man with the whiskers, pointing to an enormous sea turtle in the Coney Island switchback inclosure. "I was down at the old Iron Pier this morning, fishing for blackfish when I got a terrible tug on my line.

"I thought it was one of them dogfish sure, and I hauled my toe up in my shoe, because dogfish have an unChristian liking for big toes, 'specially those you get at the pier. But, no, when I hauled a bit on the line, the ugly head of this critter looked out of the water at me, an' most scared me ter death.

"Now, right alongside of me was Cole, of the Buffalo Aquarium.

"'Say,' says he, 'haul the head of that monster out of the water again till I get a look at him.'

"I tugged a little on the line and the old boy stuck his nose out once more.

"'Testudinata, by gum!' says Cole, who's a scientific guy.

"'What?' says I.

"'Chelonian!' says Cole.

"Then he rushes down the pier and gets old man Mac and a lot of fellows with boat hooks and in the course of an hour they hauled this feller out. Think of it, catching this thing right here at Coney Island. Why, he weighs 580 pounds, and Cole says he is about 127 years old."

This was at 10 o'clock on Saturday night and a large crowd listened to the speech of the man with whiskers. Then with few exceptions the people bought tickets for a ride on the switchback.

The man with the whiskers disappeared behind the artificial waterfall, and didn't come out until the first crowd had disappeared and another bunch taken its place. Then he told the story all over again with the same results.

The crowds swallowed the story eagerly. There was the turtle, every bit of 580 pounds, and every bit of 127 years old, to prove the truth of the yarn. There were barnacles on his back to show a recent acquaintance with deep sea water. Then in the background stood the man who said he was Cole, of the Buffalo Aquarium, ready to back up anything the man of whiskers said.

Only the turtle looked bored, and, goodness knows, he had good reason to do so. To be put to such base uses at his advanced age is even more than a turtle should be expected to stand.

The truth of the whole matter is that this turtle has been doing a press agent's work for twenty years. He was caught off the old Iron Pier at Coney Island on Saturday morning, just as the man with whiskers said he was; but what the man neglected to state was that, bound in a dozen coils of stout rope, he was first sneaked out on the pier and dropped overboard.

Then the man with the whiskers dropped an ordinary bass line with a small hook on it and baited with a lucious bug right down on his nose. Of course, the turtle took it, and then he was hauled ashore by the ropes, taken to the switchback enclosure, and barked about by the hour, to the great enrichment of the switchbackman's treasury.

This turtle is the first and only press agent of his kind that ever worked provincial New Yorkers at the seashore. When he finishes his Coney Island season he will be caught off the pier at Atlantic City, and later on he will reappear at a Florida resort coming to the surface on a bass hook, held once more by the steady hand of the eloquent man of whiskers.—New York Sun.

Story of Unique Dormitory.

Dean Hoffman was noted for charitable impulses, which his large income allowed him to indulge in. Some years ago the dean invested heavily in land in a small Southern town which was then enjoying a "boom" period. Among the dean's other investments was a beautiful little hotel, exquisitely appointed and perfect in every detail, says the New York Times. After a while the "boom" fell through and the little hotel became a losing investment.

At this time the chancellor of the University of the South, an old friend of Dean Hoffman, was on a hunting trip with him in the mountains of North Carolina.

"We are badly in need of a dormitory down at Suwance," said the chancellor.

"Yes?" said Hoffman and sat thinking for a moment. "Well, you can have the hotel building down at B——," mumbling the town. "You can take it to pieces and move it to Suwance; it ought to make a pretty little dormitory."

The chancellor was greatly pleased and made all the arrangements to move the hotel, when, to his astonishment, the citizens obtained an injunction against its removal, on the grounds that the hotel, in a way, was public property, and that to remove it would leave the town without any hotel accommodations. A legal fight followed, but the university won in the end. So the University of the South revels in the luxury of the most unique dormitory in the world.

His Epitaph.

Mexicans are fond of epitaphs, they rejoice in eulogies, they like to honor their dead. Their attachment for relatives is great, and monuments and flower-strewn graves show that the departed are not forgotten. The deceased may have left a bad record, and his friends may be anxious that his conduct should be forgotten; still, this does not debar him from a neatly worded eulogy.

Just outside of the cemetery at Vera Cruz there stands a fine monument which marks the resting place of a notorious outlaw, whose cruelty and violence made his name a constant menace to all peace and order. His wife, in spite of harsh treatment, was his faithful servant to the last, and after his death thought that she would show her respect for his memory.

She could not speak of his nobility and worth, and so, after much consideration, she caused the following inscription to be engraved upon the tomb: "Juan Fernandez has passed to his reward; he was an unerring shot and knew no fear; owing to circumstances over which he had no control his talents were perverted from their proper course, but the world should be grateful for his life, as his example stands as a timely warning to the rising generation."

They Buried Him on Suspicion.

The following incident is reported to have occurred in a Midland division court: A certain person who figured on the register was objected to by one of the agents on the ground that he was dead. The revising barrister declined to accept the assurance, and demanded conclusive testimony on the point.

Thereupon the agent of the other side rose and gave corroborative evidence as to the decease of the gentleman in question.

"And pray, sir, how do you know the man's dead?" demanded the barrister.

"Well," was the reply, "I don't know. It's very difficult to prove."

"As I suspected," returned the irate barrister. "You don't know whether he's dead or not."

The barrister glanced triumphantly round the court. His expression gradually underwent a change as the witness coolly continued:

"I was saying, sir, that I don't know whether he is dead or not, but I do know this: They buried him about a month ago on suspicion."—London Tit-Bits.

Resisting Arrest.

"You say you fought at Chickamauga?" interrogated the lean-nosed woman.

"Yes, mum," responded the dusty wayfarer.

"Who with?"

"De sheriff."—Chicago News.