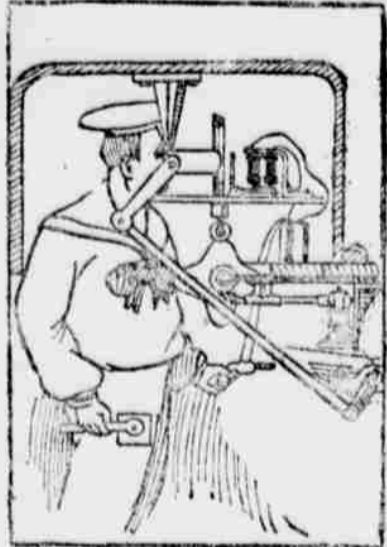


USE FOR SIGHTING MACHINE.

How Twelve-Pounders on Battleships Are Aimed and Fired. Few people are aware of the methods employed to sight the large twelve-pounders on modern battleships, says the Philadelphia Record.



Sight the Gun.

Reflecting glasses the surroundings are brought into the range of the pistol. The gunner need only sight the pistol to hit a certain object on the reflecting glasses.

The Skipper Ashore.

"Good men to have in charge of any sort of work that involves the handling of men, and especially good for such work that is also more or less outdoors, as for instance the superintendence of piers and the care of work on any sort of boats, and work in and about warehouses, and that sort of thing," said a steamshipman.

"They have to be good and able men to get up to places such as they have held on the sea, and the qualities that have made them successful ashore are equally valuable in any work they may be called upon to do, and especially in such work as I have indicated ashore.

"They are accustomed to command, for one thing; they can make men work and keep them going; they can get things done. They are likely to be able to pick out the right sort of men for bosses, if they have control of many men, and they know how to handle things and how to stow things to the best advantage.

"They are all the time watchful and alert, as they have all their lives been accustomed to be at sea, of necessity. Instinctively or by observation they know the weather in advance and always take due precautions regarding it; they never get caught napping.

"Accustomed to taking no chance, but to having men on watch night and day at sea, they set watches just the same on land, and fire, that special terror to men on ship, they guard against and look out for here with the same care that they would ashore.

"You see, the man in command of a vessel lives in a world of his own, where everything depends on him, and where he must look out for everything, and so he develops constant watchfulness and resourcefulness in emergency and readiness in action; he must be in the nature of things an able man, and that's why the sea captain or mate, retired perhaps for some disability that may impair his usefulness at sea, may make in the right place an especially good man ashore."

Metallizing Wood in France.

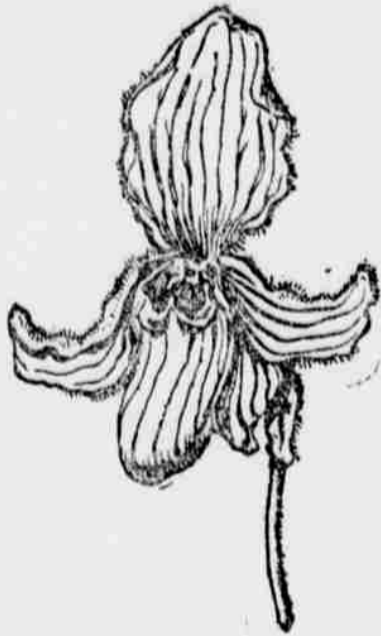
An interesting method of applying a preservative to railway sleepers and timber is described in L'Industrie Electrique of Paris. The process consists of the artificial metallization of the pores of the wood, the metal being deposited electrically. In brief, the method requires, first, the application of a solution of some salt—sulphate of copper, for example—by placing the wood immersed in the solution in a closed chamber and subjecting it to pressure. The wood is thus thoroughly impregnated with the solution. It is then taken out, and piled up in layers in a concrete reservoir. The first layer of timber is immersed in the same copper sulphate solution, and also rests on a layer of jute or other fibrous material, which is supported by an electrode made of woven strands of copper. Similar electrodes are placed between each layer of timber as they are piled up to the desired height. Alternate electrodes are then connected to the opposite poles of an alternating current supply, and the current is allowed to pass. The action is said to decompose the solution and set free metallic copper in the pores of the wood. Besides the preservative action in thus closing the pores, it is said that a certain amount of copper sulphate is permanently retained in the pores, giving an additional and a decided preservative effect.

RARE ORCHID DISCOVERED.

After Half a Century's Search Orchid Collectors Rewarded

There came to London in 1857, from India, a miscellaneous stock of orchids. They were duly sold at auction, and some of them were bought by a Mr. Fairlie of Liverpool. In his possession they bloomed, and one of them was recognized as a variety previously unknown and of singular beauty. It was named after its owner—Cypripedium Fairreanum. The Indian collection contained several other specimens of the same plant, and keen was the competition that ensued for their possession.

Meanwhile, India has been ransacked in vain by orchid hunters for other specimens of the plant. Scores of expeditions have gone in



Orchid sought for fifty years.

search of it. Not a few lives have been lost in the perilous quest. But Fairreanum eluded everybody. The money that has been expended in abortive efforts to find it would represent a snug fortune.

The Tibet expedition, which sought to open up the Forbidden Land to the trade of India, brought back specimens of pretty nearly everything that could be obtained in that grim region. One member of the mission who was a botanist discovered a lot of orchids, which were sent to Calcutta. From thence two of them were dispatched to Kew Gardens. One of them has just flowered, and experts have pronounced it the long sought and rediscovered Fairreanum.

Care of Cows in Holland.

In Holland cows are as much a part of the family as the Irishman's pig, for one member of the family always sleeps in the stable to watch and often the place is made a sort of family sitting room.

The cow stable is generally a large building, paved with brick, upon which the cows lie, straw being scarce. There is a paved passage down the center, at one end of which is a fireplace, and the windows are covered with white curtains as dainty as those used in the house proper.

Sometimes the entire family will gather in the stable in the evening, enjoying the warmth of the fire and exchanging the talk of the day, while the cattle always placed with their heads facing the central passage, chew their cud and almost seem to enjoy the human companionship. These cows are seldom brown, most of them being either black or white, or of the two colors mixed, and because of the fertility of the pasturage and the care taken in their keep they are capable of giving large yields of rich milk. In no place in the world are cows made as much of, and from the annual yield of butter it would seem that the care is not taken in vain.—New York Herald.

Trousers a Passing Fashion.

It may not be known that the familiar soutane or cassock of a Catholic priest was the garment habitually worn by all gentlemen up to comparatively recent times, though it was not always necessarily black. There is a portrait of Dante wearing one of instep length, made on an unmistakable "sunray" pattern. And long gowns were not confined to gentlemen. The habit of a Franciscan friar was the garment worn by the shepherds of Umbria in St. Francis's time, and probably for centuries before and after it.

There is evidence enough of this in our own times, if one travels outside the narrow limits of Western civilization. The man or woman who goes East will see skirted men everywhere—Arabs, Cashmeries, Punjabis, Burmans, Chinese, Japanese, Malays, to mention only a few. The present bifurcate system of western Europe, though it seems to the untraveled eye as fixed and unalterable as the Pyramids, is but a passing fashion in the history of male attire.—Grand Magazine.

Heat Caused a Mystery.

For some time the authorities of Hermalleous, Huy, on the river Meuse, have been much exercised in mind at the mysterious disappearance of iron railings which served as guards to prevent persons inadvertently walking into the river. It was thought that they had been purloined for the sake of the metal, but an investigation proves that they are in the river, and that owing to expansion by the heat they had worked loose in their stone sockets and so fallen into the water.

HOW SCIENCE AIDS THE LAW.

Finger Print Method Used Whenever Practicable.

A piece of glass bearing the marks of two fingers is sent at once to Scotland Yard. It has been decided that the criminal is a casual laborer, and there is a detective quietly watching every common lodging house within a radius of miles. Meanwhile one of the senior detectives at the Yard, with a memory stored with names of each of the desperate habitual criminals who might be likely to commit such a crime, has set on foot a search for each of these men, whose movements will, unknown to themselves, be traced for days back.

That businesslike looking commercial traveler who lounges around the bookstall or near the booking office is probably a man from the Yard. The methods vary according to circumstances, but in every direction there are the strong, unseen meshes of the police net. Up at Scotland Yard the finger prints on the piece of glass are being carefully compared with some of the finger prints of known criminals. For years finger prints have been stored and there are now on the register more than 60,000 sets, says the Cincinnati Commercial-Tribune.

Prisoners have had to ink their fingers slightly all around on a prepared slab and then place them on a piece of specially prepared paper, turning them slowly around by the direction of an official until an impression of all the skin markings has been left on the paper. Finally the sets of finger prints are indexed and stored away until wanted for comparison either with finger prints subsequently taken or with accidental marks made by escaping criminals, such as those left on the piece of glass.

Perhaps the finger marks on the glass coincide with those of a criminal who has not been seen or heard of for many months. An independent search is at once made for him and possibly some of his old acquaintances are enlisted in the quest. He may have been a frequenter of all kinds of low dens. Be sure that in every one of those dens there is an official or unofficial representative of Scotland Yard.

Shaping Silk Hat Brims.

The nail of his right forefinger was long, yellow, horny, and the fingertip has so thickened and hardened that it seemed to be covered with pale leather.

He was a silk hat maker, and it was from curling hat brims that his finger had changed so strangely. Describing the processes of a silk hat manufacture, he said:

"The belief that cardboard forms a silk hat's foundation is an error. The hat is first built up of various thicknesses of linen—layers of linen soaked in shellac, that, by means of wooden moulds and hot irons weighing twenty pounds apiece, are welded one on the other till a perfect shape, brim and all complete, is obtained.

"The silk is next put on. This silk costs from \$10 to \$15 a yard. It looks like plush in the piece. The hatmaker cuts in on the bias, and moulds it round the stiff linen foundation. The strips must be very accurately cut, and great care is needed in their ironing and cementing, so as to give a perfect diagonal joint. Look at your silk hat's seam the next time you wear it. The joint's perfection will amaze you.

"The brim up to this point is flat, now its curling commences. That is where my queer forefinger comes in. The shaping of a hat brim is purely a matter of hand, and eye and taste. The brim, while being shaped, is lightly heated, so as to give pliability.

"And of course, working on this hot material, patting and prodding it, the forefinger thickens and the nail gets horny.

"Nevertheless, hat curling is pleasant, artistic work. Hat curlers have reputations the same as artists. Their work is distinctive. An expert can tell it at a glance."—Philadelphia Bulletin.

Fashion and Industries.

From the Society Islands in the Pacific ocean the British consul tells how a change in fashion in the united kingdom helped to ruin an industry temporarily. The story relates to the trade in pearl shell. Several years ago this commodity brought from \$1,000 to \$1,100 a ton in London. Then came a great storm, which caused much loss of life, in the Tahitian group, and prices went up rapidly. The enhanced values and doubts as to the future caused buttonmakers and others responsible for fashion in dress to turn their attention to metal and other materials. As a result the demand has fallen off considerably, the price of the shell has since decreased by half, and steps have had to be taken to check the output.

A Celestial Lamp.

It was little Edgar's first glimpse of a real full moon. Up to that time his astronomical observations had been confined to furtive peeps at the luminary as he prepared for early sleeping. This particular evening he and his mother had been out visiting and were delayed in getting home. As they left the street car, the little chap caught sight of the moon over the Palisades. It was one of those nights that poets like to write about. There was not a cloud in the sky and the streets were almost as light as day. Edgar took one look and stopped in surprise and admiration.

"Oh, see, ma," he cried, "God has washed His lamp."

BASEBALL STARS RARE.

Few Men of the Thousands Playing Have All the Requirements.

The first appearance in the baseball arena of a great baseball player is to me like a draught of cool spring water on a hot day.

With a small army of clean cut athletes striving from boyhood to gain fame and big money as high class ball players, yet one great player a year is a good average. I doubt if the great game can today show two dozen players of the highest quality who have youth, speed, the highest quality of nerve and staying powers, who can hit all comers and field brilliantly, who are strong throwers, can run bases, carrying a cool head and the keen perception of thinking of their feet. In the last thirty years of baseball I could not name thirty players who would fill the above requirements. Sherwood McGeo comes under the head of wonderful players. He fills the bill and, to my way of thinking is the most valuable outfielder in the game today. Only a youth, with a brief experience in the big leagues, he is without a rival as a factor in winning games.

He plays for the batman, can take a ball on either side, high or low, runs the bases with speed and judgment, can slide and is over willing to take a chance. In fact, he is there to win, and when at the bat is almost a model for the late Edward Delehanty, the greatest straightaway batsman the game has produced.

While the great Wagner can hit, he is an easy man to work for a clever pitcher. Lajoie is a free batsman, nothing finer when at his best. The big Frenchman will go after poorly pitched balls, but when it comes to the performances of Edward Delehanty all pitchers were forced to put the ball over the rubber. With a free swing big Edward was a danger signal when a hit meant a run. He lived the opportunity for a winning hit, but never more so than than young McGeo.

While the left-hand hitters have a big advantage for averages, give me the right-hander for clean work. Left-handers batsmen have a step the best of it in beating out infield hits, but too often they crouch and show weak form at the bat. Our greatest batsman stand erect and face the music. For example, Anson, Mike Kelly, Dave Orr, Joe Kelly, Tip O'Neil, Harry Stovey, Hugh Duffy, Tom McCarthy, Jim O'Rourke, Hardie Richardson, Jack Hines, Buck Ewing, Roger O'Connor, Mike Tierman, Burkett, Lajoie, Wagner, Chase and scores of others. The batsman who crouches must be in fine form to hit effectively, as the position is not natural and gives a clever pitcher an advantage.

The one great lefthand batsman who planked himself solidly on the ground and hoped to gain first base only by a clean drive was Dan Brouthers. Brouthers was a slow runner, insisted on the ball coming over the plate, and then hit from two angles, smashing the ball to left or raising it far to right field.

Many of the best of the left-hand batsmen are continually stepping over the batsman's lines, and the great wonder is that something more definite than chalk lines have not been thought of. Those lines are soon rubbed out, and then it's a pure case of guesswork, with the catchers territory often invaded. This has gone on without the semblance of reform for the last fifty years.

It would be difficult to compare the batsman of twenty years ago and the men of the present time as formerly a man could call for either a high or a low ball, and there were men who led the league in batting who couldn't hit a low ball once in ten tries. Now the batsman must be prepared to meet anything from the knee to the shoulder, leaving the umpire with power to put any pitcher or batsman to the bad as he guesses at the size of each man and finds the left-hander who crouches a difficult problem. For this reason it wouldn't be a bad idea to force all the men at the plate to stand up until the ball was under way.

Knew His Business.

"Seems to me a man of your standing in the community ought to drive a better looking horse," the summer-boarder said.

"I wouldn't trade him for the fastest roadster in the hull country," said Farmer Huckleberry. "That hoss knows just what to do when he meets an o'tymobile. He cavorts around an' topples over an' breaks up a dollar's wuth o' buggy shafts an' mebbe 50 cents wuth o' harness, an' I'll bet I've collected much as 'leven hundred dollars from the o'tymobile owners. The old hoss is all right."

Gnawed Way Out of Prison.

A burglar named Scharschmidt, in prison at Gera, deliberately set to work to gnaw through a thick oak beam in front of his cell window. It was a work of seven weeks. The fragments of wood which were torn away with his teeth he replaced with chewed bread, until the beam was almost gnawed through.

A final smashing noise was heard by the wardens, but before they could appear Scharschmidt had escaped.

Flesh of the Black Sea.

The Black Sea contains less animal life than any other body of water. The lower depths are saturated with a poisonous gas which kills the fish.

CASTORIA

The Kind You Have Always Bought, and which has been in use for over 30 years, has borne the signature of and has been made under his personal supervision since its infancy. Allow no one to deceive you in this. All Counterfeits, Imitations and "Just-as-good" are but Experiments that trifle with and endanger the health of Infants and Children—Experience against Experiment.

What is CASTORIA Castoria is a harmless substitute for Castor Oil, Paregoric, Drops and Soothing Syrups. It is Pleasant. It contains neither Opium, Morphine nor other Narcotic substance. Its age is its guarantee. It destroys Worms and allays Feverishness. It cures Diarrhoea and Wind Colic. It relieves Teething Troubles, cures Constipation and Flatulency. It assimilates the Food, regulates the Stomach and Bowels, giving healthy and natural sleep. The Children's Panacea—The Mother's Friend.

GENUINE CASTORIA ALWAYS Bears the Signature of Chas. H. Fletcher The Kind You Have Always Bought In Use For Over 30 Years. THE CENTAUR COMPANY, 37 MURRAY ST., N. Y. CITY.

FRESH AIR FOR FIRE FIGHTERS.

Withstands Sulphur Fumes for One Hour With Recent Equipment.

An ingenious respiratory apparatus for the use of firemen, described in the Scientific American, by Arthur Innersley. It consists, he tells us, of a hood lined with oiled silk, and an air cylinder, strapped on the back, carrying under pressure enough air to last an hour. The air is conducted by a rubber tube to the head-piece, the exhaled air passing out through a valve before the mouth. To quote Mr. Innersley: "The fireman can get enough air to fill his lungs comfortably but can not expend the supply in a short time, as he might be tempted to do if



he became frightened. The main supply of air comes from the outer cylinders, the middle one being smaller and to be drawn upon only after the other two are exhausted. The apparatus can be adjusted on the back in half a minute, and, as it weighs only 23 pounds, it does not impede the fireman in his work.

"A man equipped with the apparatus entered a room filled with the fumes of burning sulphur and worked there for a full hour, coughing out with his throat and lungs perfectly free."

Contrary to the Government.

The owner of Norfolk List, a Servian newspaper which is hostile to the government, appeals for a responsible editor. The eighth editor in three weeks was arrested and the editor's wife, obliged to support herself, tried, in vain, to get permission to have an egg-stall in the market place.

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A "Sovereign" That Costs Only One Dollar.

Dr. David Kennedy's Favorite Remedy, of Rondout, N. Y., is a "Sovereign" medicine for nervousness, Rheumatism, Kidney and Liver complaints, and all the ills peculiar to women. It drives the poison from the blood, and restores the patient to the bloom of health. You will never regret the exchange of one dollar for a bottle.

Envelopes 75,000 Envelopes carried in stock at the COLUMBIAN Office. The line includes drug envelopes, pay, coin, baronial, commercial sizes, number 6, 6 1/2, 6 3/4, 9, 10 and 11, catalog, &c. Prices range from \$1.50 per 1000 printed, up to \$5.00. Largest stock in the country to select from. The piano tuner should be high toned.

THE SOOTHING SPRAY of Ely's Liquid Cream Balm, used in an atomizer, is an unspeakable relief to sufferers from Catarrh. Some of them describe it as a Godsend, and no wonder. The thick, foul discharge is dislodged and the patient breathes freely, perhaps for the first time in weeks. Liquid Cream Balm contains all the healing, purifying elements of the solid form, and it never fails to satisfy. Sold by all druggists for 75c, including spraying tube, or mailed by Ely Bros., 55 Warren Street, New York.

There are two ways for a girl to get a fellow's money. She can either marry him for it or sue him for breach of promise.

The healthy old man wears his gray hairs like a silver crown. What if he be threescore and ten if there is still fire in his eye, firmness in his step, command in his voice and wisdom in his counsel? He commands love and reverence. Yet how few wear the mantle of age with dignity. Dim eyed, querulous of speech, halting in step, childish in mind, they "lag superfluous on the stage," dragging out the fag end of life in a simple existence. The secret of a healthy old age is a healthy middle age. The man who takes care of his stomach, who keeps his body properly nourished, will find that the body does not fall him in old age. The great value of Dr. Pierce's Golden Medical Discovery lies in the preservation of the working power of the stomach and other organs of digestion and nutrition. From this center is distributed the nourishment of the whole body. The salt for the blood, the lime for the bones, phosphates for the brain and nerves. A sound stomach means a sound man. A man who keeps his stomach sound by the use of "Golden Medical Discovery" will wear the crown of gray hairs as befits a monarch, with dignity and ease. Formula printed on wrapper—not a secret, or "patent medicine," but of KNOWN COMPOSITION.

Boy—"Don't you want a feller to keep the tramps away, missus?" Missus—"How can you keep the tramps away?" Boy—"Well, I kin eat up all the pie an' things wot's left over."

A Reliable Remedy CATARRH Ely's Cream Balm Ely is quickly absorbed. Gives relief at once. It cleanses, soothes, heals and protects the diseased membrane resulting from Catarrh and Drives away a Cold in the Head quickly. Restores the Senses of Taste and Smell. Full size 50 cts., at Druggists or by mail. In liquid form, 75 cents. Ely Brothers, 55 Warren Street, New York.