# THE NAVY'S NEW STEEL-MESH MAST. manna

Tremendous sums are annually expended in target practice by the navy of this nation. The ultimate end sought for in this sedulous training and costly expenditure is the acquiring of an ability to hit the enemy first, to hit rapidly and to hit hard.

It is now realized that the BPE fights of the future will open at extremely long ranges, say, five or six miles. "The fleet that first gets the range," said Rear Admiral Evans in a recent interview, "and is best handled after the range is obtained, will undoubtedly do such damage in the first ten minutes as practically to disable the opposing fleet."

All other thtings being equal, the initial advantage would therefore appear to be the deciding one. The gaining of this sovantage is now almost wholly dependent upon the observers stationed in the tops, the clear-eyed, coolheaded men who from their point of vantage determine the range, and, by the various systems of fire control communicate it to the men behind the guns. With these salient points in mind, the reader can clearly comprehend the vast importance of an observing station sufficiently elevated for the range finders to execute their mission with precision and celerity, and, more important still, a station that can remain longest erect under the stress of battle.

conducted by the British Admiralty it one is interested in municipal organizawas found that the ordinary cylindrical steel mast with which all battleships are now fitted is wholly unsulted for this purpose. The Hero, an obsolete battleship of the second class, its rallways and its post office. Zurich was selected for the experiment. A complete system of fire control was installed in the old warrior, and then the vessel was anchored over a shoal and attacked by the guns of the modern first-class battleships Hibernia and

Although the deductions of the Admiralty officials have been withheld, a

Dominion



duced for experimental purposes. Three tests were ordered; one to determine the effect of shell fire upon turret armor and turret fittings, one for the purpose of showing the usefulness, if any, of crinoline nets as a protection against torpedoes, and another, regarded by naval men as the most important of the series, intended to test the relapse safety of a new type of skeleton mast.

The mast is described as a mesh of steel, 96 feet in height, and carried near the stern of the monitor. It was built upon a double spiral principle, each set of spiral columns running in an opposite direction. At the top was a platform upon which were two dummies weighted and wired for recording the shock of the projectile. The steel rods which form the mast are two inches in diameter at the base, narrowing at the top. The experts who had designed it had employed all of their mechanical skill to construct a framework that would still remain erect though pierced by many shot. The mast was subjected to a thorough test and emerged successful.,

# ZURICH A MODEL MODERN CITY.

#### One of the Best Organized and Most Perfectly Equipped Towns.

Seventy years ago, as we may see in the national gallery cellars, Turner found at Zurich one of the most lovely subjects of his brush, says the Boston Transcript. It is no longer a romantic old relic of middle ages, but it is one of the best organized and most perfectly equipped of European cities. Its magnificent situation and rare natural opportunities have been used to In a recent notable test which was the full by its energetic citizens. If tion, let him study the institution and cedility of Zurich-its boulevards. quays, electric tram lines, its water supply, its public gardens, its lighting, is now a model modern city, in size, in construction and arrangement, the ideal of what a city should be to live in and work In.

> But I wish especially to call attention to its new national museum of local antiquities. It is barely ten years old, but as a monumental history of Switzerland for 5,000 years it is far the most complete collection in Europe. Neither London, nor Berlin, nor Vienna, with all their splendid collections, can show anything at all equal in historic continuity for a single country as Swiss patriotism has done at Zurich. Its fifty rooms record the evolution of the national life from the age of the lake dwellers to our own day. And the value of such a systematic collection of national monuments, industry and art can hardly be overrated. The historian and the artist might spend weeks of study in mastering its varied

### Does a Vacation Pay?

ontents.

What a difference there is in what two people bring home from a vacation! One comes back tired, disgusted. bored. He has spent his money and doesn't feel that he has much of anything in return. Another comes back all radiant with the riches which he has drunk in and absorbed during every moment of his vacation. He comes back rejuvenated, refreshed, inspired, a new creature, with a new grip upon ife. The cobwebs, the brain ashes have been swept away from his jaded brain. He has been made over anew. Life means more than ever before. His dimmed ideals have been brightened and sharpened, his ambition renewed. Ask him if a vacation pays, and he will ask you, in turn, if it pays the grub to throw off its ugly shape and blossom out into a butterfly; if it pays a rosebud to open up its petals and fling out its fragrance and beauty to the world. When you go into the country, make up your mind that you are going into God's great gallery of charm and beauty to enjoy yourself and to see what you can get out of it. Resolve that you will come home laden with riches that no money can buy; that you are going to extract from the landscape-from the mountains, the valleys, the fields, and the meadows-a wealth which does not inhere in the dollar. Learn to drink in beauty and health it every pore. Try to realize that the flowers, the grass, the trees, the brooks, the hills-the charm and beauty everywhere-are God's smiles; that they are for him only who can appreciate them, who can respond to them, who can appropriate their message. They cannot be bought; they belong only to him who can enjoy them .- Success Magazine.

A CAUSE OF CRIME.

Er. Philgminthroe's View of Effect of Cold Plates on Mankind. "I suppose," said Mr. Philgminthroe to the New York Sun man, "that when everything has been counted up and reduced to the final analysis it will be discovered that the one single, most prolific cause of crime is cold plates.

"I wouldn't be understood as saying for half an hour. that cold plates are a direct incitement to murder, though it is not impossible that they might be so; but as an insidious, undermining cause, as an influ- a study in farmyard life and that the ence leading perhaps indirectly, but hateful and all too familiar expression still with no less certainty, to the com- in his own eyes had been transferred mitting of crime I have no doubt you faithfully to the optics of a pig on the would find cold plates leading all the canvas. rest.

"How often do we hear it said of the fate of nations that it is trembling in animal painters are also expatriated the balance, ready to be moved this way Englishmen. The writer met both in or that by the slightest touch? And Paris in the winter of 1897. One of if this can be true of nations how much them had "dog eyes," while the other more may it be true of individuals, who wore the expression of a cat. Both may be swayed, their fortunes for the are well known to Bohemian dwellers time settled, or their whole conduct of in the Latin quarter. life determined by the slightest circum-

stance?

In Florence, one Boutempl got his living by posing to Matarazza, the "Coming back now to cold plates. well-known animal painter. Dogs were

wrong and emigrated years ago to Can-

ada, where he found his level on the

According to his own story, he was

on the verge of starvation, when, one

evening, he was accosted by a French-

Canadian artist, who asked him wheth-

er he cared to earn a dollar by com

Only when the painting, a very large

one, was completed did the unfortun-

ate model discover that the picture was

eves who earn a living by sitting to

waterside at Montreal.

You take a man who has worked hard his specialty. He had their expression,

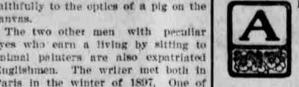
BELLICOSE BEAVERS AT THE FRANCO-BRITISH EXHIBITION.



One of the most amusing things in the Franco-British exhibition is the beaver dam, which is drawing crowds of visitors. If the chief performers, however, are going on as they are doing the show will come to an end for want of actors. The beavers have been lighting furiously, even to the death, and now only four of them remain. The slain are said to have been eaten .--London News.



## CHICKEN FARMING.



looks extremely simple. Apparently it is only necessary to build a little henhouse, buy a few chickens, sit around and see them scratch for worms, collect the eggs now and then, and when necessary kill a broller. It locks as if anyone could do it and make a

MOST everybody thinks he could run a

chicken farm and make money. The thing

living at it. On the costrary, however, nothing calls for more tech-

nical knowledge and more business sense than the running of a chicken farm. In addition to this it requires a peculiar gift or intuition, something like fishing. Some people make a great success of it who might be expected to fail, and some make great failures who might be expected to succeed. The business is a good deal of a lot-

An article appeared in a recent issue of the Brooklyn Times giving a few salutary hints to anyone who thinks of embarking in this business. A chicken house may be built of rough boards and light joists, but the north and west sides should be covered with asphalt paper. The floor may be of coment or earth. There must be windows of unbleached muslin instead of glass. There must be ventilation, but uo draft. There must be shade trees near by. The feed must be a mixture of many grains, and it must be thrown into straw or leaves, so that the chickens will have to scratch for it. If corn is given it must be cracked first. There must always be beef scraps, grass clippings and oyster shells accessible.

This is the A, B, C of the business, and then the whole science and art of chicken raising is still to be learned. It is a beautiful and fascinating business if it is well conducted, but nothing is more mortifying and expensive if it is not well handled. As there never have been and apparently never will be enough fresh eggs and dressed chickens for any market, it looks as if everybody might rush into the business, but many who do rush in are glad to get out .- Chleago Record-Herald.

#### TO MARRY OR NOT TO MARRY.



HERE is considerable advantage in being married, even if you are only a mere man. For example: Your liability to die is only 18 per cent, whereas that of bachelors between the ages of 30 and 45 rises as high as 27 in 100. You are less liable to be out of employment, the proportion

of the unemployed among married men being, according to recent statistics, from S to 14 in 100; among bachelors it is rarely less than 18 in 100. Nor are your chances of becoming a criminal more than 2 in 100; but if you are unmarried they are over 4 per cent. The drinking returns account for over 23 per cent of the unwedded wights, and 27 of the married fraternity.

It is found that men who wed before the age of 20 usually marry women three or four years older than

BLUFFING A MAN KILLER.

How Senator Stewart Faced a Ne vada<sup>\*</sup> Desperado Successfully.

"I have never seen a desperado, or man killer, who, if he thought an antagonist were ready for him with weapons equal to his own, would not back out of a fight," remarked Senator Stewart, of Nevada, to a representative of the Washington Post.

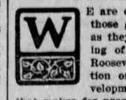
"There was Sam Brown, the cham-

themselves; men of 25 are accustomed to choose brides of 23 or 24; men of mature age usually marry widows of mature age, and very old men rarely marry women less than 40 years junior to them.

And for the divine sex, just let us see: The average marrying age for the average woman is over 26, George Bernard Shaw being responsible for the statement that the fushionable age-1. c., the age at which modern woman is mest fascinating-is not a day under 40-40, if you please, Mr. Printer. Of every 1,000 women who marry, only a tenth part are widows.

Statisticians of note have from marriage returns deduced a scale of a woman's chances of finding a partner in life. The betting is somewhat as follows: Between the ages of 20 and 25 the odds on a woman getting married are 52 cents to a dollar, adopting the humble mini-mum, between 25 and 30, only 18 cents to a dollar; between the ages of 30 and 35, 16 cents to a dollar; between the ages of 35 and 40, only 4 cents to a dollar. and not quite 3 cents to a dollar in the case of a woman between 40 and 45.-Exchange.

OUR SOUTH AMERICAN NEIGHBORS.



E are coming to a better understanding of those growing nations to the south of us, as they have come to a better understanding of our purpose and our policy. Mr. Roosevelt's prediction that no other portion of the world will see a greater development in wealth, population and all

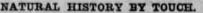
that makes for progress than the region extending from the Rio Grande to Patagonia is not an idle one. It has been hampered in the past by conditions that are fast disappearing-political instability is giving way to strength and permanence in government; great cities are springing up; vast railroad enterprises are linking hitherto inaccessible territories with the outside world and with each other; agriculture, manufactures and all the arts of civilization flourish, and wealth and culture abound. A happy region, unburdened with armies and navies, and endowed by nature with immense resources -may it be worthy of the great future before it !-- Washington Herald.

#### THE ALCOHOL OUTPUT.



HE production of denatured alcohol for the first six months of 1907, under the new law 'covering its manufacture, amounted to 1,774,272 gallons. The supplemental new alcohol law will, it is estimated, lead to a production of 4,000,000 gallons for the calendar year. The operation of the law

has already reduced the cost of wood alcohol from prices varying between 60 and 75 cents to 30 cents a gallon, a fact which amply indicates that a fairly efficient monopoly has been established in the wood alcohol business. -Scientific American.





HOW BLIND CHILDREN IN PARIS ARE TAUGHT ZOOLOGY.

by means of models and stuffed specimens. From the models they learn to

distinguish the animals, and then they are taught in greater detail the

In the Institute for the Blind in Paris the children are taught zoology

writer for a service journal (The Navy) has ascertained that the effect of the gun fire upon every part of the fire control system located above the protected deck was disastrous. A sixinch shell burst in the improvised fire control top on the mast and carried away the range-finding station in the very beginning of the simulated combat. Most significant and important of all, a splinter of shell-not a direct hit-went through the mast, and although the mast stood, every one of Its fire control wires was severed. Thus was the most important problem solved in the first two minutes.

Then was asked the question, whether the modern system of fire control. with its most important installation it a cylindrical steel mast and its observatory placed at a high elevation upon that mast, could withstand for any length of time the fire of a straightshooting foe. It was realized at once that it could not-that with the in creased range and deadly precision of modern high-powered guns not only masts, but smokestacks and other super-deck attachments are more than likely to be shot away at the very beginning of the battle.

This brought naval administrations face to face with new conditions. The need of some method of carrying range finders high in air had been noted in the battle of the Tsushima Straits. where the initial advantage had been gained by the Japanese, who had concentrated their fire upon the Souvaroff, Rojestvensky's flagship. According to Semenoff, a Russlan officer on board the flagship, the mast of that vessel was shot away almost at the beginning of the action. This not only interrupted all further efforts on the part of that vessel to get the range of her antagonists from her fighting tops, but it also interfered with the display of signals.

The need of some new method indicated by that battle was accentuated and made urgent by the test to which the Hero was subjected. Some of our own very alert and progressive navy officers at once set about solving the problem. The result is the test to which the monitor Florida was subjected a few days ago. The Arkansas, a sister ship, was selected to do the tiring.

The Florida is one of the new type of single-turret monitors. For the purposes of the test she was towed to the Thimble Light Shoal, off Old Point Comfort, and anchored about midway between Cape Charles and Cape Henry. The Arkansas took a position about 350 yards westward, so that the shots, after passing through the Florida's military mast, would fall into the open sea. The shots were fired at a range of about 350 yards with a reduced charge, so that the effect was practically the same as a range of 5,000 yards with a full charge of pow-

It was the first time in the history The man who never attempts to of the United States Navy that actusing at any other time, will break out al conditions of warfare were repro- in a pienic wagon.

eh?

#### Uphelding Authority.

It was a score of years ago that W. I. Connors, now Chairman of the New York Democratic State Committee, semill-dams break and spread their de cured his first great freight-handling vastating waters from leaks that at ontract, and when the work was ready to start he appeared on the Ohio street dock at Buffalo and called a thousand burly "dock-wollopers" to order.

"Now," roared Connors, "yez are to worruk for me, and I want ivery man here to understand what's what. I kin the one most prolific cause of crime. lick anny man in the gang."

Nine hundred and ninety-nine swalowed the insult, but one huge, double duty it is to see that the places are hot ! fisted warrior moved uneasily, and, For the good of humanity, if not for stepping from the line, he said : "You our own comfort, well being and happican't lick me, Jim Connors." ness, give us hot plates!"

"I can't can't I?" bellowed "Fingy." "No, ye can't," was the response, "Oh, well; thin go to the office and git your money," said "Fingy," "Th Painters Found Some of Them Uso have no man in me gang that I can't lick."-Success Magazine.

### Thanks for His Money.

Weekle-So Slippsy is a defaulter,

Deckle-So they say. Weekle-By George! I always woninvariably the case is evidenced by a dered why he said "Thank you" so solicitor in the north of England, who pleasantly every time I made a deposascribes much of his prosperity to a it.-Bohemian Magazine. look of profound wisdom which

#### Grammatically Speaking.

is lent to what would otherwise be a He-Can you explain to me the difsomewhat commonplace couldenance forence between "shall" and "will?" For by a pair of "owl eyes." example, if I say, "Will you marry me?" should you reply "I shall" or "I will? She (coldly)-1 should reply, "1

won't."-Home Herald.

and whom a square meal would brace Landseer. up mightily and cause to take a new In 1895 there was employed as hall view of life and to set his face in the porter at Oporto a middle-aged indi- giant, six feet four inches high. 250 right direction, and you give this man vidual who claimed to have been a a good dinner with hot plates and Catholic priest in the early days of his

HAD ANIMAL EYES.

ful as Models.

which defy disguise and which are al-

ways liable to prejudice their owner's

gained for him many clients, but which

known to the other two.

Stories.

Some men possess "animal eyes,"

don't you see that you head him up life. He was in the habit of sitting, held. He looked more like a dangerous right and confirm in him his good im- on occasions to Senor Joaquine da Cos- beast than a human being. Killing pulses? You nail him, so to speak, you ta, a painter of wild animals, of rath- was his trade, and one winter in Virstart him off right, and you keep him | er more than local repute. going right; and there's a man saved

"And now you take that same man

It has been said, "Tell me a people's and give him his dinner on cold plates; breaks the camel's back, and he may of people they are." Judged in this get peevish over it, and not enjoy his way, the Siamese are a shrewd peoafter-dinner smoke, and get so wrought | ple. up that he doesn't sleep well that night

The Menam, their chief river, is to and wakes up the next morning and Siam what the Nile is to Egypt, and goes to business already tired out and the elephant, tiger and crocodile are not fit to do anything, so that he loses found in jungle and stream.

Proverbs of Slam,

his temper and is cross and irritable, Here are a few of their proverbs and misses every play he makes and "When you go into the woods, do not goes on from bad to worse and winds forget your wood knife." "Place not up maybe by killing somebody before your boat across the stream" (because the day is over. All this is absolutely of the current). "An elephant, though attributable to cold plates. he has four legs, may slip, and a doc-"So of major crimes such as murder tor is not always right."

and that sort of things; but when it "Go up by land, you meet a tiger; ge comes to little things, such as plain down by water, you met a crocodile' sulkiness and kicking over chairs at (there are difficulties on all sides) home, and being cross to the children "Nobility is seen in the race, manners and making your wife unhapy and causin the individual." "If a dog bite you, ing gloom to settle on the household do not bite him again." "He who lives generally, why, there cold plates have under the sky should not be afraid of the rain." "Nourish no worms that eat crimes to answer for innumerable. "Tall oaks from little acorns grow, timber" (be careful in the choice of

friends),-London Serans.

## How Prisoners Read.

first you couldn't put your little finger through, and I have no doubt that "It is rather pathetic," said a prison chaptain, "the way our inmates read many disturbing, distressing, harrow ing things have been primarily due to their surreptitious newspapers. It is bad for the poor fellows' eyes, too, so small a thing as cold plates, which indeed, as I have said, I believe to be "It is against the rule for them t read in their cells, and in the cell doors which was fitted up as a saloon, in the there are peopholes, to which the jail-"And taking this view, what a re sponsibility rests upon those whose ers come noiselessly, seeing that all the rules are enforced.

"The prisoner who simply must read pastes with a bit of porridge his jour- he admired, invited me to join him. A nal up against his cell door beneath

the peophole. He sits down on the him in a mining suit." floor a yard or two away and holds his dustpan in one hand and his brush in the other. In this awkward and wearlsome position, his eyes nearly popping

out of his head from strain, he reads away for dear life. "And when the fallet's cold, hard

chances throughout life, says Stray ye peers in through the peephole it misses the paper and lights op with That this, however, is by no means some faint approbation at the sight of the prisoner polishing up his floor."-New York Press.

> In the books when a haughty girl tively little importance except that it is indignant she draws herself up to is well to let this be at least two or year?' I asked him. her full height, leaving the impression three hours before retiring. But even that ordinarily she carries herself this rule has many exceptions, as many folded like a jack knife.

At least three men who have come under the writer's notice (and there Over 92,000 natives are employed by are possibly many more like them) the missionary societies of this country carn a precarious livelihood by sitting and Europe in spreading the gospel to animal painters. All three have among their fellows. come down in the world, and one is un-

There is always someone to say that The first mentfoned belonged once to a model husband is hennecked.

plon bad man of Nevada in the old and been harried all day and who that doglike fidelity of eye which one days, who was dreaded by the communicomes home at night tired and worried amires so much in the pictures by ty as the public here would dread the turning loose on the avenue of a Numidian lion. This Sam Brown was a pounds avoirdupois, and as, ferocious a looking man as ever mortal eye beginia City he slew sixteen men. Timid folk shuddered at sight of him.

"Knowing he was going to be present at a lawsult in which I had been reand that may be the last straw that proverbs, and I will tell you what sort tained by a client whose interests were opposed to the desperado. I thought it best on the day of the trial to put a couple of old-fashioned derringers in my overcoat pocket. Sure enough, Brown was on hand in a little room in which the case was heard, and when I saw him enter the idea came into my mind that he had come to make me

even if they did not kill.

his latest victim. His favorite weapon they are perfectly carried out, as is ilwas a big Bowle knife, and the knowllustrated by the almost invariable habedge that the villain meant to stab me

to death made me feel exceedingly un- directly after a meal. comfortable. It was enough to make Indeed, a moderate amount of food the bravest heart quall. But I knew it in the stomach or intestines seems to would never do to show the creature promote slumber.' Many night workers, Tribune : that he had me scared, and, looking him for instance, sleep much better for taksquarely in the face, I brought the ing a light or even full supper just be-

lustrated News.

pocket of my overcoat around to where fore retiring .- Dr. Woods Hutchinson he could see the full shape of both my in American Magazine. derringers. My hand was grasping the handle, and I was ready to shoot on The Colored Brother's Reason

the second. These pistols shot with Booker T. Washington told the story terrific force, and would knock down, of a negro pastor who was having some difficulty with his flock.

"He was watching me like a hawk, "The old fellow came to me and and I saw his eye fall on the weapons. asked me to help him out," said Mr. Before this he had been fumbling at Washington, "I went down to the little his knife, but immediately he ceased, backwoods country church with him and presently he walked out of the one Sunday. Incidentally I took occaroom. When the business was over I sion to inquire among the parishioners found him in the front of the house. paid the old man his salary.

act of taking a drink. With a smile intended to be amiable he advanced to meet me, holding out both hands and of the congregation. I told them that declaring that I was the sort of man week later he asked me to represent salary.

> good speech. I had most of the congregation convinced, I think.

"But there was one old fellow in the back of the church that was mumbling during my talk. He would snickturbances of digestion and through

these of the general balance of health. this year.' The hypnotic effects of certain "The old fellow became so obstrepfoods, such as onlons, lettuce, milk, etc., erous that I remonstrated with him. are chiefly imaginary. Even the time " Brother, why are you not going to of the last meal of the day is of relapay your pastor any more salary this

healthy laboring men habitually fall decisive response."

asleep over their pipes directly after supper, and children after poking the Save Money. spoon into their little eyes nod off over "Did your husband have any sort the ten table, with the bread and butof luck at the races yesterday?" "Splendid! The street-car system

ter still clutched in their chubby fists. The processes of digestion probably no on more slowly during sleep, but | they were over."-Judge.

anatomy of each animal or pird by handling stuffed specimens .-- London Il-WATER SPOILS ASPARAGUS. it among animals of going to sleep Dealers' Practice of Soaking it Lessens its Value as Food.

Vice-Consul Murphy, at Frankfort, reports as follows, says the New York

"A warm discussion has been going on for many years in Germany as to whether purchasers suffer from the dealers' practice of submerging asparagus in water to prevent its withering or hardening. The plea of the dealers has been that soaking asparagus in water merely keeps it fresh in appearance without either lessening its allmentary value or increasing its weight.

"In order to put an end to this discussion, the Gardeners' Union determined to submit the question to the experts of the experimental institute at Geisenheim on the Rhine. According a little and found that they had not to the Frankfurter Zeitung Drs. Windisch and Schmidt have completed the "Upon this basis of information I experiments with surprising results. It started in to astonish the members has been ascertained that the absorption of water by submerged asparagus they should pay their pastor; that he is not inconsiderable, the weight being had to live; that he had to have his increased about 10 per cent in two days. Moreover, it loses some of its nu-"All in all, I was making a pretty tritious components, especially those containing nitrogen and mineral matter.

"The results of experiments with asparagus whose cut surfaces had been coated with paraffin were exceedingly er a little and duck his eyes below the interesting. Contrary to expectations, old soft hat he held up to his face. 'We it was found that asparagus thus treatain't goin' to pay him any more salary of absorbed considerably more water and lost much less of its alimentary value than that which was placed in water without first being coated with paraffin where it had been cut.

"Thus it has at last been authoritatively established that the practice of "Because we done paid him for keeping asparagus fresh by placing it them same sermons last y'ar,' was the in water not only lessens its value as food, but also defrauds the purchaser by increasing its weight."

However poor and wretched its home may be, or however strong the probability that it will be caught by the hind legs and have its head cut off for broke down and he didn't get there till a stew the chicken always comes ho to rocst

gestion During Slumber. Diet has little influence on sleep except in so far as it may produce dis-

DIET AND SLEEP. Eating Before Retiring and Di-