

A CIVIL WAR AIRSHIP THE CZARS PRIVATE LIFE

One Was Made That Act- Earns a Salary of \$4,800,000
ually Lifted Itself. a Year.

POWER FROM STEAM. HAS 30,000 SERVANTS.

Gen. Benjamin F. Butler Wanted to Know About the Movements of the Enemy While in Virginia and Ordered the Machine to be Built.

Wellman Serrell tells about an airship Maj. Gen. Benjamin F. Butler, commander of the army of the James, ordered to be built soon after the 10th army corps moved into Virginia. All the commanders desired to know what the enemy was doing, and Mr. Serrell says that "when the astronomer Gen. Mitchell commanded at Fort Royal during the Civil War, the matter was discussed with his chief engineer officer, who brought forward the proposition to make a machine without inflation, and exhibited a tin model that would up with a string, and handle and spin like a humming top and would fly into the air ten feet or more vertically, according to the force exerted upon it, and would carry a bullet or two if the string was pulled hard enough.

Gen. Mitchell died, and, upon seeing what the tin toy did, Gen. Butler expressed the belief that a machine could be built to navigate the air. Drawings were made, the theory being "to imitate the little tin model and add to its gliding planes. The drawings," according to Mr. Serrell, "showed four fans to lift, two above an engine, two below, and two fans to propel and steer, one in front and one behind; the rear fan on a shaft that moved in a horizontal segment, so as to change the direction of the push, and make the rear fan not only a propeller, but a rudder at the same time. Across the machine was to be a horizontal shaft, on which on either side of the machine were to be gliding planes and automatic balancing balls. These were to slide in and out so as to maintain an equilibrium.

The body of the machine was to be about 52 feet long and shaped like a thick cigar. It was to contain fuel and water and a high pressure boiler and engine. From the middle of the body a weight was to be hung so arranged that it might be lifted or lowered like the legs of a bird. Private subscribers offered to pay for the machine, and Mr. Serrell says:

The first thing done was to make a fan 18 inches in diameter, rotate it at different speeds and see how much it would lift. It was found that very considerable weight could be lifted, and to try what could be done on a large scale, a fan about 32 feet in diameter was made, the blades of the thinnest sheet iron that could be procured, and rotation by belt was provided.

Contrary to expectation, when the fan was first rotated at great speed in a foundry that had a high roof, the weight that could be lifted was much more than the wheel itself, some 600 pounds or more, and then within 40 seconds of time the wheel and the weights would drop back to where they started from, it mattered not how fast the fan was driven.

It was found after a long investigation that the fan wheel of any size, when rotated in one place, set up a downward current of air that soon became nearly or quite as fast as the pitch of the fan, hence it would lift nothing.

When, however, the fan was mounted at the outer end of a long boom, which revolved around a mast, so as to constantly bring the fan into new air, its lifting capacity never deserted it, and bore a certain ratio to the velocity, and data were accumulated for proportioning the machine.

The questions involved seemed to be the size of the fan, the shape of the blade, the power required, the weight of the engine, boiler, fuel and water to develop the power. There were no dynamos or storage batteries, liquid air engines or sources of powerful energy using light-weight machines, and the only prime motor sufficiently reliable was the steam engine.

It is true that carbonic acid had been liquefied some years before then, but no one knew how to harness it. Having determined the probable force wanted, the question remained of how to get and maintain pressure enough upon the piston of the engine. A great many experiments were made, but the "needful force of steam was not reached before the coming of Appomattox."—Science.

To Make a Compass of Your Watch. Get the number of hours from midnight, divide by two and point the hour at the sun so that the shadow of a match or lead pencil falls directly across the center of the watch; 12 o'clock will be north, 6 south, 9 west and 3 east. Suppose it is 9 a. m.; number of hours from midnight is 9; one-half is 4 1/2; point 4 1/2 at the sun so the shadow of a match or lead pencil falls across the center of watch, and 12 is north, 6 south, 3 east and 9 west. Suppose it is 6 p. m.; number of hours from midnight 18; one-half 9; point 9 at sun and 12 is north, 6 south, 3 east and 9 west.

Also, when the sun is hidden on a cloudy day, take a lead pencil or stick that is well sharpened and place it on the thumb nail. By looking closely you will see a faint shadow, which will give you a very good idea of the direction of the sun and may be useful to one lost on a cloudy day.—Forest and Stream.

To manufacture tobacco grown in Canada a factory is about to be opened in Winnipeg.

The Czar as Managing Director of the Vast Russian Empire Receives \$400,000 Every Month by Special Messenger from the Treasury—Has 100 Palaces.

The czar earns a bigger salary than any other man in the world, for the public exchequer of his country pays him the sum of \$4,800,000 per annum for acting as managing director of the Russian empire, with its area of 8,000,000 square miles and its population of 130,000,000 persons.

But, considering the crushing weight of care and responsibility which he bears on his shoulders, his remuneration, high as it is, does not appear excessive. His salary is paid him in monthly installments of \$400,000 each, which are sent to him by a special messenger from the treasury buildings in the form of a check on the national bank of Russia, just as an office clerk receives his monthly wages, with the difference, however, that the czar's talent and industry exercise no influence on his payment.

At the same time, he is expected to maintain a certain standard of living which he would be unable to do in the style required of him if he did not possess a private income of three or four times as big as his official salary. He is the owner of over 100 estates, all of which supply him with private revenues, but he is also the possessor of 100 palaces and castles, which have to be maintained in imperial style at a great expense to his own ear.

He has more servants than any one else in the world for a veritable army of over 30,000 domestics, cooks, pages, butlers, grooms, gardeners and so forth is employed on his hundred or more estates. He possesses over 200 residences which he has never seen, a score of homes which he has viewed externally but never inhabited, even for one night, and another score in each of which he has slept on only one occasion.

His private stables contain over 5,000 horses belonging to him, and the herds of cattle feeding on his own lands are estimated to number over 50,000 head. His wealth is enormous, yet there is no doubt that he extracts very little pleasure out of his life of perpetual toil and worry.

He habitually rises at 6, and eats a characteristically English breakfast of ham and eggs, bread and butter with marmalade, specially and privately prepared for him and for the predilection for English manners and customs is common to both the czar and the czarina, for both like English fare best, prefer using English to their respective mother tongues, and are agreed upon the necessity of educating their children according to English methods.

Immediately after breakfast the czar begins to smoke some of the heaviest brands of Havana cigars, which he continues to puff almost continuously till bedtime, notwithstanding the fact that his doctors have warned him again and again that excessive indulgence in this habit is exposing him to the worst dangers of nicotine poisoning. By 7 o'clock in the morning he is at his desk, perusing an enormous heap of state documents sent to the palace for his inspection.

The variety of subjects with which he is called upon to deal is astonishing, for he is not merely the emperor, but also the father of his people. No order or instruction or communication of any kind can be dispatched from any ministry or state office in St. Petersburg to local or subordinate authorities unless it bears the signature of the czar, indicating his assent and approval.

Every communication sent from the ministry of war to the representative officers commanding several hundred garrisons throughout the Russian empire, every dispatch sent to the captains of Russian warships all over the world and every circular issued by the ministry of the interior to the police and to all varieties of local authorities have to bear the czar's own signature. Success.

No "Swear Words." It is said that not a single "swear word" is to be found in the Japanese language.

That means that the Japs have no need for such words. And no wonder! For they think it is very silly for any one to get angry. "What's the use?" they say. "There's no use kicking about things we cannot help."

The Cholera Epidemic. In the cholera visitation in 1866, the proportion of deaths to each 10,000 inhabitants in the various cities of Europe were as follows: London, 18; Dublin, 41; Vienna, 51; Marseilles, 64; Paris, 66; Berlin, 83; Naples, 89; St. Petersburg, 98; Madrid, 104; Brussels, 184; Palermo, 187, and Constantinople, 738.

Perfume a Protection. Lion tamers frequently perfume themselves with lavender. There is, it is said, to be no record of a lion ever having attacked a trainer who had taken the precaution of using this perfume.

The title-hunting heiress is never satisfied until she purchases a gold brick.

A. W. Payne of Bangor, Me., is credited with being the oldest practicing attorney in the United States.

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EATING POWER OF TOADS.

Makes Little Discrimination, If His Prey is Alive.

The toad is a gross feeder. He sallies forth usually after sundown in search of his prey, which includes pretty nearly every variety of insect and worm, and experiment proves that in 24 hours he will consume insect food of a volume fourfold the capacity of his stomach. In other words, he can fill up four times. Of angle worms he does not seem very fond, though his gluttonous habit extends to them if they are too temptingly abundant, as after the earth has had a good wetting. Ants appear to be his chief delight, with cutworms and thousand-leggers next in order. Then come caterpillars and beetles. Grasshoppers and crickets furnish but a small part of his bill of fare, and spiders still less. He has no use, apparently, for dead prey; but when an insect or worm comes near him in motion he makes for it eagerly. A cutworm which has discretion enough, when in his neighborhood, to keep curled up may easily escape, but as soon as it begins to crawl, let it beware. His method of capturing a bug is to dart out his tongue, which, by the way, reverses the usual order of nature in being fastened in front and loose behind. It is coated with a glutinous secretion, and when it strikes an object is fastened firmly to it and conveys it into the toad's mouth. If the object, like a big worm, for instance, is too large to go unassisted into his gullet, he uses his forepaws, like a greedy child, to stuff it down.

Most of the vintages which the toad loves are, in their living state, pests of the farm and garden. It is hard to say just where to place ants in this classification. Nearly all students of nature, as well as persons who have nothing but the traditions of their childhood to guide their judgment, have acquired a certain affection for the ant. Its seeming intelligence, its artistic or mechanical instinct, its untiring industry, its courage, its care for its dead and wounded, its nice domestic economy and its habit of providing against the "rainy day," all tend to give it a sort of human claim upon us. Still, the fact cannot be ignored that the ant is an active distributor of plant lice, that it destroys lawns, spoils garden walks, infests dwellings and makes itself a common nuisance in the kitchen and pantry, driving the dainty housewife almost to distraction. In the same category with ants, as to human regard, might be placed honey bees, which the toad will eat when he gets a good chance. One of his tricks is to station himself at the entrance to a hive and capture the belated home comers. As the toad does not spring into the air for his food, however, any aspirant may avoid this danger by raising his hives well above the ground.

Cat Adopted Orphan Coons.

Col. L. L. Hawkins yesterday secured a new prize for his collection of weird and wonderful exhibits at the city museum, in Portland, Ore. The

doughty Colonel has exceeded himself in his latest acquisition and, if one desires to see such a bizarre thing as a pussy cat mothering a litter of young raccoons he may be gratified at the city hall. All previous happy family records have been broken by an old mother cat rearing in a family of two baby coons and her own proper kitten which Col. Hawkins secured at Beaverton and has now comfortably installed at the museum.

A few days ago some boys killed a female raccoon near Beaverton, and upon beating the bush discovered her nest with four little ones in it clamoring for their mother. The baby coons were taken to the home of Mrs. H. L. Griffiths, near by, where a cat was rearing a family of four kittens. The kittens were given to another feline, in which the maternal instinct was strong, and the little coons substituted without protest from the mother. In a short time two of the little wild kittens died, but the other pair thrived in their new environment, and the story of the cat with the coon family became something of a sensation in the neighborhood.

Col. Hawkins heard of it and made the twenty-mile drive out and back for the purpose of bringing the wonder to Portland. Mrs. Griffiths finally consented to lend the family to the museum, and as an evidence of good faith one of the kitten was brought along with the little coons to complete the picture of mixed domesticity.—Portland Oregonian.

Grant's Marvelous Memory.

Gen. Grant's retentive memory was simply marvelous, more especially to those most closely associated with him from day to day. In the midst of absorbing thought, and with apparently unobtrusive manner, his ear and eye seemed to hear and notice everything, and two weeks or months later the slightest details had not escaped his attention or memory. This power was unmistakably demonstrated in a game of whist with his guest, Maj. Gen. Doyle, of the British army, between Baltimore and Fortress Monroe. Two staff officers completed the players. With Gen. Doyle at his right, it was simply amazing to discover Grant's ability to discover strategic points.

He never failed to remember every card that had fallen, whence it came and who was to deliver to him all remaining, which he scooped in as a matter of course, although he never seemed in the least absorbed in the game. He was indeed an enigmatic composition in this as well as in other respects.—National Magazine.

If wishes were mules beggars might have more kicks coming.

A Voice From the May Lord. At a provincial theatre the spectators were kept waiting a long time for the play to begin. The "gods" became impatient, and kicked up a terrible row. "Be quiet, you beasts!" exclaimed a gentleman in the pit, angrily. "You are mistaken!" cried a voice from the gallery; "this is the hay loft; the stable is down there."

SIMPLE LIFE IN ICELAND.

No Liquor Manufactured, No Jails and Only One Policeman.

There are no manufactories in the country. Each home is a factory and every member of the family a hand. Shoes are made from goat skins. The long stockings worn over these in wading through the snow are knitted by the women and children, and even the beautiful broadcloth comes smooth and perfect from the hand loom found in every house.

This simple life is conducive to a state of high morals, higher probably than in any other part of the world. There is not a drop of liquor manufactured on the island, and for the 78,000 population there is but one policeman. There is neither a jail nor any place of incarceration for criminals; nor yet is there a court in which a high crime could be tried.

The percentage of crime is so small that it does not warrant the expense of keeping up a court. When a criminal trial becomes necessary the offender is taken to Denmark to answer to the law for his misdeeds. The women are among the most advanced in the world.

Bridal Wreath of the Nations.

The bridal wreath is usually formed of myrtle branches in Germany; it is made of orange blossoms in France and in England, in Italy and the French Cantons of Switzerland it is of white roses; in Spain the flowers of which it is composed are red roses and pinks. In the islands of Greece vine leaves serve the purpose, and in Bohemia rosemary is employed; in German Switzerland a crown of artificial flowers take the place of the wreath.—Exchange.

Solomon's Children.

A curious, and for many centuries strangely isolated human relic of the past, a tribe inhabiting the islands of Lake Zual, in Abyssinia, which claims to be composed of descendants of King Solomon, has been visited by M. H. le Roux, the well-known French traveler. The tribe now amounts to about 4,000; the language is a mixture of Abyssinian and Tigræan.

Facts About the Eye.

The eye of a young child is as transparent as water; that of the youth a little less so; in the man of 30 the eye begins to be slightly opaque; in the man of 50 or 60 it is decidedly opaque, and in the man of 70 or 80 it is dull and lusterless. This gradual development of opacity is due to the increase of fibrous tissue and deposit of waste matter in the eye.

He Won the Race.

After the battle of the Boyne King James escaped to Dublin and informed Lady Tyrconnel that her fellow countrymen had run away. "If they have, sire," she replied, "your majesty seems to have won the race."

How He Paid His Fine.

Senator Dubois of Idaho was practicing once in Boise City, and becoming too vehement, was fined \$50 for contempt of court. The next day, according to a custom followed in the Idaho courts, the judge called upon Mr. Dubois to occupy the bench for him during the transaction of some comparatively unimportant business. After the judge's departure from the court room, and before anything else could come up, Mr. Dubois exhibited an instance of that remarkable presence of mind for which he has never been noted. The future senator said to the clerk of the court: "Turning to the records of this court for yesterday, Mr. Clerk you will observe recorded a fine of \$50 against one Frederick T. Dubois. You will kindly make a note to the effect that such a fine has been remitted by order of the court."

Where Everything is Canned.

At the session of the House of Bishops which was held at Boston last fall, the Bishop of Alaska told the following story: The difficulty in obtaining and transporting fresh food in Alaska has resulted in an excessive use of canned goods. In fact, the natives consider Americans and canned goods as inseparable. Recently some one sent a phonograph to the Bishop. It was the first one in Alaska, and was made the drawing card at a meeting held in Sitka. The natives were much interested, and gathered about to hear the first piece which was the Lord's Prayer.

After it was concluded there was a moment's impressive silence, and then one of the Indian chiefs, pointing to the phonograph, said: "Him canned missionary?"

Call It Quits.

"Mabel," said Archibald, "now that we are engaged, we should have no secrets from each other, should we dear?"

"No," said Mabel, after she had assured herself that her mother was not listening in the next room.

"Well, then," he said, "do please tell me just how old you are."

"With pleasure," said Mabel. "But first, Archibald, please tell me just how much you get a week."

Archibald pondered. His mind ran ahead into the future.

"Forgive me, Mabel," he responded, "it was none of my business to ask."—Illustrated Bits.

Weeping at the Ice House.

An attendant at Mount Vernon not long since, found a lady weeping most bitterly and audibly with her handkerchief at her eyes. He stepped up to her and said: "Are you in any trouble, madam?" "No, sir," she sobbed. "I saw you weeping."

"Ah!" said she, "how can one help weeping at the grave of the Father of His Country?" "Oh! indeed, madam," said he, "that's it! The tomb is over yonder. This is the ice house."—Indianapolis Journal.