

SYSTEM in the BUSINESS OFFICE of the NAVY



STATE, WAR AND
NAVY BUILDING

In the bureau of supplies and accounts of the United States navy at Washington some surprising changes have been made in the past year in methods of doing business. The bureau is the business office of the navy. Also it is the butcher, the baker, the banker, the tailor and the grocer of the navy. It pays out some \$145,000,000 a year. It saves Jack's money for him and deposits savings bank it operates has deposits aggregating \$253,000. It operates two great clothing factories, one at Brooklyn and the other at Charleston, S. C. In another aspect it is one of the biggest purchasing agencies in the country.

So remarkable have been its achievements in the twelvemonth that many requests have come to it recently from business establishments, public and private, for information as to its new methods.

The spirit behind the change is that of a boyish-looking, wide-eyed, ever-smiling officer, who, just forty-five years old—and he does not look it—holds the rank and draws the pay of a rear admiral, he being paymaster general of the navy and chief of the bureau. Rear Admiral Samuel McGowan he is to outsiders. Mr. McGowan is the form of address he insists upon within the bureau. But in the navy generally, by all ranks and all grades, he is dubbed, behind his back of course, Sammy McGowan.

In the 14 months he has been paymaster general he has made over his bureau. What is more, he has secured the hearty and enthusiastic support of the entire force. That, to anyone who knows how any government organization is wedded to precedent, is amazing.

Somewhat given to the making of epigrams in his instructions, oral and written, Admiral McGowan has uttered two that give a hint of the predominant ideas behind his reforms. "Make it bureau with a small b and navy with a big N," is one, and "Remember that the stores exist for the fleet, not the fleet for the stores."

The paymaster general and his bureau of supplies and accounts have their offices in the great pile known as the state, war and navy building, on Pennsylvania avenue, flanking the White House on the west. When the building was erected some forty years ago it was the largest office building in the world. Each corridor in it has the appearance of a battalion of barracks, for each of the many corridor doors has its middle two-thirds masked by a shutter door. The rooms are all intercommunicating.

The paymaster general's office is the end one in a suite of five rooms. Across the hall are seven more rooms. In the navy annex building, in a street near by, are some more offices of the bureau.

When Paymaster General McGowan took over the job he inaugurated at once a clean-up campaign. Down from the walls came the dusty old pictures. Bookcases and file cases went out. Current and absolutely necessary bureau files went into one room in a set of steel vertical containers, for general purposes, and in the purchasing end, across the hall, they likewise were reduced. Private libraries also went out. Upstairs the navy department maintains a splendid naval library, and this is available for all purposes.

"Abolish roll-top desks," was the word. Where flat-top desks were not available the department carpenters took off the roll tops. Since then standard office furniture has been adopted for the entire bureau.

All intercommunicating doors in the suites were taken off the hinges. Walls were painted in light colors. Then the chief of each room or division chief was required to put his desk in the middle of the room with his force grouped about him. Now the paymaster general can stand in his room and look down the line and see exactly what is going on.

But that isn't exactly the point. The object is not to keep an eye on the people so much as it is to convey the idea of unity. The division chief who, sequestered in his own little nest, might be tempted to write a letter to the chief next door, doesn't do it under these conditions. He says, "Say, Bill, how about so and so?" or goes over and discusses it at close range.

Stationery in use was reduced to the fewest possible simple kinds. On a shelf handy to the paymaster general's hands is a book some 14 inches long by 18 inches wide. In it is all the information that once occupied a big floorom. This information pertains to the present duty and availability for sea or shore duty, as the case may be, of all of the 230 officers making up the pay corps.

The pages of the book are faced with transparent celluloid. When a pay officer is sent on a cruise his name and the essential date are inscribed on a typewritten slip and inserted at the bottom of the section devoted to pay officers on sea duty. Place by place the slip moves up automatically, and in this way one may observe at a glance who is due for shore duty and who for sea duty as, under the law, for every two years of shore duty a pay officer must take three years of sea duty.

And thus with all records. No effort has been spared to reduce them all to the simplest and most graphic form. The messenger force was reorganized and a squad told off to act as express messengers. This insures speed in the movement of papers from desk to desk and to the secretary's office. No paper remains more than 15 minutes awaiting transmission.

One of the very first things Paymaster General



SECRETARY
DANIEL'S
WORK



PAYMASTER GENERAL MCGOWAN

McGowan did was to put a stop to promiscuous letter writing. The true bureaucrat dearly loves to write letters. He thinks he is at his best when he is writing letters for the chief of sign, division heads dictating many of the letters which take the bureau chief's signature. It gratifies the soul of the bureaucrat to grow arrogant and sarcastic in such dictation.

Nothing of that sort is tolerated by Admiral McGowan. He insisted that letter writing be reduced to a minimum and that nothing unkind or contentious be put into a letter, especially to another co-ordinate bureau. After his first general remarks on the subject he followed it up with an "intra-bureau order," intra-bureau orders being one of his methods of reaching the personnel of his organization.

But the striking changes in the service have been worked in the detail of the machinery first of accounting and then of supplying. Aboard each one of Uncle Sam's fighting craft is a pay officer, the ship's business manager. Each ship has a base or home station at some navy yard. At each navy yard is a storehouse, presided over by a pay officer. It is the business of this storehouse to provide for the ships attached to it. Then there are fuel stations—coal and oil—also under jurisdiction of the pay corps, for the pay corps buys everything, save arms and ammunition, needed by the ships and their personnel.

At present there are in the custody of the storekeepers general supplies worth \$22,000,000, exclusive of fuel; \$4,000,000 worth of clothing, and \$3,000,000 worth of provisions. The problem is not alone to supply immediate needs, but to be ready to supply emergency needs. Just as an army moves on its belly, so is a navy department on its supplies. When a portion of the fleet was dispatched the other day to Santo Domingo it required a lot of things not ordinarily carried. It got away promptly because those particular things were forthcoming without delay.

Always the bureau is in the market buying in huge quantities on bids and under rigid specifications, for delivery at the most advantageous points. Two simple record books contain all the data on current bids which have been opened, and these are always open to public inspection.

But the characteristic of the purchasing system is the simple and graphic methods used in keeping information up to date on existing stocks of fuel and supplies and on current prices. Much of this information is reduced to charts on sectional paper. Thus a simple chart tells in figures and lines up to within 12 hours the exact quantity of coal and fuel on hand at any supply station, and another gives the same information as to the amount on board any ship of the navy.

The selection of the time for restocking thus is almost automatically suggested.

A small card-filing case contains a remarkable exhibition of prices current. Charted on cards are the market price movements for seven years, week by week, of important staples. For example, the butter card shows a well-defined curve for each of the seven years, indicating the weeks when butter is high and when low. As these curves closely parallel, a glance at it shows when is the most advantageous time for buying butter in quantity and storing it.

So systematized has the method of securing and charting this information become that it requires little labor and its cost, by comparison with the results achieved in assisting in intelligent buying, is remarkably low.

Other charts, corrected daily, keep the bureau informed as to the amount of stocks on hand in every detail, not only at the storehouses but on the ships as well. Since the navy through its extensive wireless system is in constant communication with every ship afloat, the task of keeping up these charts is not so difficult as it seems.

Or the bunch of cards making up a ship's company also is producible on the instant.

Machines have reduced the amount of work in the accounting section more than 50 per cent. There are refinements of cost keeping in a military establishment that are not known in a private establishment, for all expenditures must conform to some specific item of an appropriation bill, and appropriations for the naval establishment are found in three different appropriation acts.

Roughly speaking, 3,000,000 separate accounts must be kept properly to meet the requirements of the law and to furnish the information as to costs, gross and detailed, needed. Imagine a ledger with 3,000,000 accounts!

Here the cards and mechanism have come in to the extent that half the number of men needed 15 months ago are now required to do the work. In addition a great deal of new work has been taken on.

The use of new card punching machines is responsible for the latter economies.

The machine is so arranged that it sorts the punched cards, arranges them in proper groups, ascertains the totals of the figures indicated by the punched holes and prints on a sheet the results. It is accounting reduced to mechanism.

Of course the usual machines, such as adding machines and the like, are part of the equipment. In fact the whole trend of the reforms in this section has been to reduce everything to a mechanical basis.

The result is great economies in operation, increased efficiency, increased accuracy and increased speed. To the casual observer the striking thing is the disappearance of books. Few indeed are the books in sight, remarkably slim the files. In other words, the accountancy system has been reduced to the simplest dimensions.

Ask any man, officer or civilian, in the establishment how the whole organization has been made over in such a time, and he instantly will tell you that Sammy McGowan did it. And then he will grow confidential and tell you what he esteems is the secret of the whole accomplishment, the spirit that McGowan has put into his entire force. "We don't tolerate grouches," your informant will say. "We all belong to the Don't Worry club and McGowan is its president."

Another thing this paymaster general has done is to establish in Washington, with the approval of the secretary of the navy, a school for navy pay officers. These officers are appointed from civil life on a competitive examination. They go into the service equipped with a good academic education, but with no knowledge of the navy and its needs. Hence the new service school, which has in this year's class 15 young officers who are being trained in their new profession.

Admiral McGowan himself is a product of civilian training. When he secured his appointment in the pay corps in 1894 he was a South Carolina newspaper man who had worked his way through college and law school by running a brick yard and serving as a ticket agent at a railway station. Maybe there he got the training which has made him a great business executive.

The fact that he has spent most of his naval career as sea accounts for his insistence that the fleet and not the bureau is the thing ever to be kept in mind.

When he left the Atlantic fleet to go ashore as paymaster general his commanding officer, Admiral Badger, said of him, "He has made the pay department of the fleet a smoothly working military machine."

That is the ideal he holds up to his bureau and corps: "Make it a smooth running military machine."

SWEETS FOR THE AFTERNOON

Some Novelties That Almost Any Woman Can Make for the Delight of Guests.

The search for the unusual occupies the time, or a big portion of it, of many men and women. Men who are running tiny "fancywork" shops, men who are managing huge manufacturing plants, women who spend most of their life in the pursuit of society, and women who spend it managing simply their own homes, all must seek novelties.

Here are some suggestions of unusual sweets that may interest the woman who tries to furnish tempting yet inexpensive food.

It is easy enough to buy a bit of French pastry at the confectioner's to give an unusual air to the afternoon tea tray—if one is willing to pay the bill. Here is a cheap dainty that will vie with those from the best confectioner: Make a rich, slightly sweetened biscuit dough and form it into small rounds. In the center of each place a pitted, stewed prune and pull up the edges to cover the prune entirely. Bake quickly a golden brown and serve hot.

For banbury tarts make good pie crust and roll it thin. Cut it into big circles, and in each place a spoonful of filling, bring the edges together and bake brown. Serve either hot or cold. To make the filling, mix a cup of seeded raisins, a cup of sugar, the juice and grated rind of a lemon and a beaten egg; cook for a few minutes until the egg thickens and cool before using.

Make sugar-stuffed cookies roll good sugar-cooky dough thin and cut in rounds. On half the rounds place a spoonful of the banbury-tart filling, put the other rounds over those with the filling, pinch the edges together and bake until done.

Make gingerbread of the soft variety with three-quarters of a cup of orange juice substituted for some of the other liquid. Bake it in muffin tins and serve with whipped cream.

KITCHEN "KINKS" OF VALUE

Good Substitute for Eggs When They Are Scarce—To Separate Whites From Yolks.

When eggs are scarce a teaspoonful of cornstarch can be made to take the place of one egg. When combined with eggs it makes puddings, cakes and pies lighter.

When the whites of eggs are used and the yolks are not wanted for several days, beat them up with a little cold water and put them away in a cool place. They will keep good for quite a while. If they are to be used for salad dressing the water must not be added.

When separating the whites from the yolks of eggs one will sometimes break the yolk into the white, in which case the whites do not beat light. Dip a clean cloth into warm water, wring dry, touch the yolk which has been dropped into the white with the cloth and it will cling to the cloth.

If you wish to save the shells, break away just enough of the smaller end of the shell to remove the contents. Then carefully wash the shells and put them away in a safe place. Later you may fill these shells with jelly, covering the broken end with paraffin paper. This is a convenient way to carry jelly for lunches.

Russian Boiled Fish (Cold).

Clean and season a whole fish and let boil with one sliced onion, half cupful vinegar, a few slices of lemon and two springs of parsley. Add a tablespoonful of butter, let cook until tender. Remove fish to platter. Mix the sauce with one tablespoonful of brown sugar, a pinch of ginger, cinnamon and nutmeg and the juice of a lemon. Let boil well, then thicken with the yolks of two beaten eggs and pour over the fish. Serve cold, garnish with lemon slices and olives.

Veal in a Mold.

This is a dish that can be prepared the day before and can be served cold for the next day's luncheon or dinner. Boil a knuckle of veal till tender. Pour off the water in which it was boiled and mince the veal. Add the minced veal to the juice and pour in a mould. Add thin slices of a hard-boiled egg and place in a cool place, and when cold place on the ice. Serve on a platter, garnished with parsley or a few pieces of crisp fried bacon.

Satisfactory Sprinkling.

Here is a method for sprinkling clothes which will be found very satisfactory. This saves a lot of trouble and prevents the hands from getting chapped in cold weather. Take an ordinary cork and cut a small slitting in it lengthwise. Fill a glass bottle with water and put the cork in it. When the bottle is shaken the slitted cork acts as a spray, sprinkling the water evenly over the clothes.

Spiced Crabapple Jelly.

One-half peck crabapples (washed but not peeled), five cupfuls sugar, two cupfuls white pickling vinegar, one-half ounce each whole cinnamon, cloves and allspice. Boil to a pulp and strain. To every cupful of juice add a cupful of sugar and boil 20 minutes, removing scum. Pour into jelly tumblers, and when cold cover with melted paraffin.

Good to Know.

To bake potatoes quickly boil them in salted water for ten minutes, then put in the oven. The boiling water will heat them through so they cook in a short time.

SOUTH AFRICA Drying Up

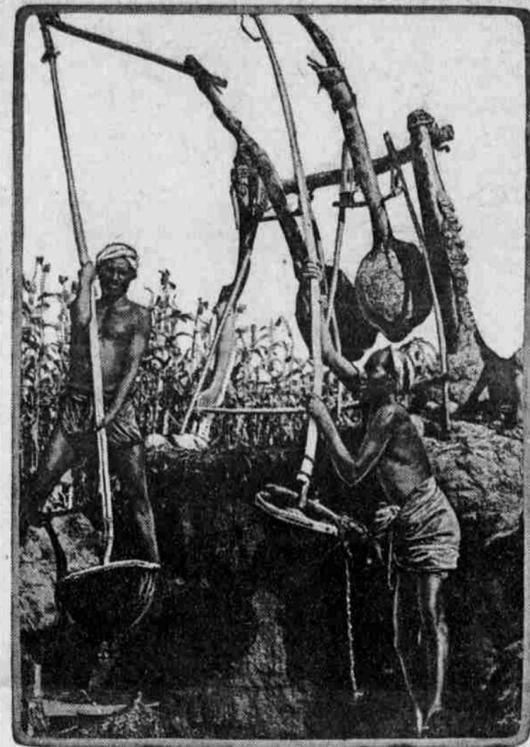
CONCERNING a specific instance of the continuous decrease of surface water from the earth, especially in Asia and Africa, the "dry continents," Advocate Eugene N. Marais, R. J. P., writes from Rietfontein, Waterberg, South Africa, an astonishing article recently published in a report of the Smithsonian Institution.

After mentioning some of the general facts relative to the drying up of the whole earth, which, according to the French astronomer Flammarion, will ultimately cause the end of the world, the author cites a number of appalling instances of the increasing dryness of Africa. N'gami, a real lake less than fifty years ago, is now no more than a marsh threatened with speedy extinction, and Lake Rudolph is rapidly shrinking, which fact is alarming when it is realized that this body of water feeds the Nile and waters Egypt. Mr. Marais believes false the old doctrine regarding the perfect cycle of moisture—evaporation and precipitation being equal—and thinks

irrigation. The famous sweet grass of this region is nearly gone, though in its place has come a coarser "sour" grass with peculiar drought-resisting qualities.

The life history of this "sour" grass is truly a fairy tale of botany. Its seeds are highly specialized, having a body shaped like a torpedo with a long, tapering tail.

An opportunity of seeing a startling wonder of plant life is offered when one comes across a mass of these seeds drifted together by the wind. If a little water is sprinkled on them, a tremor of awakening life is seen to stir them; movements in all directions follow, so animal-like as to leave one in doubt whether they are really seeds or insects. First each seed disentangles itself, then the seedhead is lifted clear of the ground, following which a bend of the supporting tail turns the torpedo head earthward, and the needle point with its bristles is thrust into the damp soil by a continuous pressure of the tail. This latter movement is continued until the seed is



PRIMITIVE IRRIGATION

that the earth is sucking up moisture like a gigantic sponge.

The name Waterberg was given originally when this country was very fertile, watered by lakes, streams, springs and dotted with marshes. According to the writer, its name was synonymous with a sort of lotus land of fertility; it literally overflowed with milk, honey and fruits. It was also the last stronghold of the big game of the northern Transvaal. Today, after the culminating drought of 1913, it is practically a desert, with dried up water courses and springs, dead orange groves, some of them over fifty years old, trees three centuries old now lifeless, desolate pasture lands devoid of cattle and other life. There is no game, either birds or animals, and the fields where fine crops once grew are now parched and dead.

No Running Water There.

It is hard to believe, but true, that in the entire district of Waterberg, which is larger than the Free State, there was last year no running water, and in the north of the district there is a tract over 4,000 square miles in extent where there is no single drop of water, running or stagnant, above the surface of the ground. The great Limpopo itself is dry for all the distance that its course covers in this district and only by digging deep in its sandy bed can drinking water be found. Even after a very heavy rain in the neighborhood of its source, which flooded its tributaries at the time, the stream reached but a little way down the Limpopo, and not one drop of the water which fell in the upper regions reached the sea; all lost in the burning sands of the river's bed. Only the fairly numerous thermal springs of the district remain unaffected by the drought, and on them the dwellers depend for drinking and

embedded in the soil, the whole operation occupying 15 minutes. If the soil is only slightly damp, the seed penetrates just beyond the line of moisture and remains without germinating until enough rain insures the safe sprouting of the future seedling. Thus equipped, the sour grass exists despite the severe drought against which the sweet grass is helpless.

All Animal Life Fled.

The effects of the drought were so far-reaching on the animal world that those animals capable of escape fled early from the stricken area—man with his live stock among the first—and now the entire middle belt is without human inhabitant, and the north practically a desert. Over everything lies the silence of absolute lifelessness. It seems as if the desert had reached out an arm and taken unto itself for all time this great extent of once fertile country, where for four and a half hours daily in no spot is the temperature less than 100 degrees Fahrenheit.

The big game have nearly all disappeared, most of them having trekked to more fertile country. Some of the remaining animals have had to change their natural habits; the nocturnal ant-bear is forced to search its food in broad daylight on account of the fact that the ants in the hard ground cannot be dug out during a night. Most nocturnal beasts of prey also hunt during the day as well as by night; some leopards raided a nearby camp in the early afternoon, and the baboons, usually so afraid of the dark, seem never to sleep, but walk about both day and night in search of food in any form. A crocodile was unearthed by the author's party when digging for water in the bed of a stream, four and a half feet beneath the surface.

MACHINE GUN COOLED BY AIR

Declared to Be Superior to Weapons Which Have Hitherto Employed Water for the Purpose.

Most of the machine guns used in the British army are water-cooled. The steam given off by the water, which is boiled through the heat of firing, is liable to betray the position of the gunner, however, and for some time inventors have been busy inventing an air-cooled machine.

They have been successful, and the Lewis air-cooled gun is now used by our soldiers. The Lewis gun weighs only 25½ pounds and it can be fired from the shoulder.

It very much resembles, indeed, an ordinary rifle, but it has a horizontal revolving magazine above the trigger, and the barrel is four inches in diameter on the outside, appearing much bigger than that of a rifle.

The gun is air-cooled by a sheath of aluminum, with radiating wings, like an electric fan. This sheath extends beyond the actual barrel of the gun. As the gases caused by the firing of

the cartridges, come out of the barrel they act on these fans and drive them around, causing a continual draft of cool air to pass along the barrel.

The Lewis takes 48 cartridges at a time, but it can be reloaded in a few seconds.—Pearson's.

Check Frauds Busy Last Year.

L. W. Gammon, manager of the protective department of the American Bankers' association, in his annual report, recited that the last year has been active for the protective department owing to the unsettled conditions prevailing throughout the country, which always have a tendency to increase all classes of crime.

"There has been no marked increase in the operations of the professional operator," Mr. Gammon said, "but there has been a considerable increase in the operations of the amateur."

Altogether Different. Someone has said that there are but few women who are great orators, but when it comes to great talkers—well, that's another affair.

COMMENTS

Usually we do not know, but we might find out oftener than we do. When a man is henpecked, one of his first duties is to tell everybody that he isn't, and that he wouldn't be a bachelor again for anything in the world. Suspicion is a vicious thing; but sometimes it is justified. The Sober Second Thought is usually so slow that much mischief is done before it acts.

Just how much can be accomplished in overcoming natural tendencies, I do not pretend to say; but I have noticed that with the whip properly laid on, a lazy horse does very well. Men who, reasonably fair with neighbors, develop a roughish instinct as soon as they deal with the public. The public never watches as closely as do the neighbors. I walk around some men as I walk around a mad hound. The average man's conscience is more elastic than his suspenders.

POSTSCRIPTS

A Colorado inventor's electric that iron is propelled by a motor driven roller, an operator having only to control the current and guide it. Wireless apparatus for spherical balloons that a German has invented uses loops of wire that encircle the gas bags vertically for antennae. Experts have estimated the available water power of the streams of the United States all the way from 31,404,000 to 50,140,000 horse power.

German railroads have found that the maintenance of electric locomotives is more economical than operating cars fitted with individual motors. Easily attached to or detached from a window sash, a wire screen has been patented that is rolled or unrolled as a window is closed or opened. One Charm of Wealth. Make a noise that rings like wealth and any number of visiting cards will be pushed under your front door.