

DOING BUSINESS ON WHEELS—THE SYSTEM OF THE MODERN CIRCUS



A Meeting of the Directors in a Car



Counting the Day's Receipts



She Mends All the Costumes

SO FAST, yet so well systematized, are the details of the management of a great circus that the United States Government condescends to learn useful lessons from the "business on wheels" of these enterprising captains of industry.

Secretary Taft recently detailed two army officers to study the methods employed in transporting and feeding the numerous employes of a circus, with a view to adopting worthy ideas for the army transportation and commissary services.

Perhaps the successful conduct of a "big show" today requires more business ability than almost any other enterprise.

It carries its treasurer, cashiers, auditor, bookkeeper, doctor and detective; it has its butcher shop, barber shop, blacksmith shop, its tailoring and dressmaking department; its mammoth commissary department includes even a refreshment car, with canteen service.

From \$5000 to \$20,000 a day may be taken in by the large circus; there are innumerable accounts to be kept, a stream of bills to be paid. Yet so thorough is the system that no cent goes astray, no want is ever un-supplied, and the proprietors know exactly how their business stands every hour of the day.

THINK for a moment of the enormous extent of the average large circus enterprise. One of those now on the road has 1200 people on its payroll.

In all, there are twenty-seven tents—covering an area of twelve acres—with their apparently numberless accessories and equipments; eighty-five cars are required to transport the outfit. Twenty-six of these are Pullman sleepers—the 375 performers must rest as they journey from place to place. There are 675 horses to be cared for.

Keeping track of the money receipts and expenditures alone is a gigantic task. A typical day's income from two performances may be divided as follows: Thirty thousand general admissions, at 50 and 25 cents, \$15,000; reserved seats and boxes, \$2000; refreshments, \$1500; fans, programmes, etc., \$400; sideshow admissions, \$1200; total, \$19,200.

Shortly after the last performance is over these figures are classified and presented in the form of a comprehensive statement to the proprietors, together with a statement of all the numerous bills paid during the day.

All these business details are attended to in the little box office on wheels, where there is scarcely space for a man to turn his chair around.

"How much money have you made today?" the proprietor of a great circus was asked recently.

"Exactly \$109,255," he replied.

It was then but little after midnight, and the circus was about ready to move on to the next stand.

"But," exclaimed the visitor, "how can you tell so accurately?"

"Because," was the reply, "I have received my reports of the day's business from my ticket sellers, peanut and candy sellers, fan and programme dispensers and lemonade stands; my auditor and bookkeeper have checked them up and deducted the running expenses, calculated on the average day's disbursements for food, salaries, advertising, license and the other outlays, and the net profit has been reported to me, as is done every day we show."

The general agent, who goes ahead to survey the route for a tour that has already been planned, in the advance agent of a show's prosperity. This work done, he must hurry back to examine every item sent in by the contracting agents. Few men in any business handle as much work as this general agent, while he is hastening from place to place.

announcement as "Wait for the Big Show," followed by its own name and a date.

An important factor in the circus system is the railroad contractor, who, upon receiving the routes from the general agent, arranges from the various terminals for transportation of the advertising cars and the show itself. He, too, must arrange for sidings at which to unload, and frequently plans circus-day excursions from the surrounding country, for which he must make a guarantee to the railroad company.

And now the circus comes to town. So thorough have the plans been that there is scarcely ever a hitch. The circus trains are given right of way over all freights and everything, except mail and passenger service. In movement, the transportation boss takes up the work where the railroad contractor left off.

He superintends the placing of the Pullmans and flats, and sees to the unloading and transportation to the circus grounds. Already he has taken out the State and city license for the performance, and has ordered supplies.

On account of the vast amount of money handled, the financial course of the great throbbing engine, ready to answer any question relative to a bill or contract. Here, too, the pay envelopes are made out weekly, just as in any large city office, and the treasurer or his assistant, backed by a man with two revolvers in his belt, passes them around.

But he reckons without a quiet young man who drops into town three days before show-day and armed with a list of window posters, goes about the streets checking the special men who are on the ground on show day make reports on every phase of the work, from that of the cook wagon to the task of doctoring consumptive Hindoos.

The barber has set up shop near the horse tent; the blacksmith's forge is working merrily. The circus doctor, paid by the week, is making his rounds. The circus detective is on the alert.

A canteen service, similar to that in the United States Army, is maintained by the big circus, for it is calculated that a certain amount of liquor given to each man daily conduces to better results than if men found it necessary to make skrimishes to nearby saloons. The refreshments are kept on a Pullman car, which is constantly guarded.

While en route and during the performance repairs to costumes of actors and animals are required, and so a number of seamstresses are kept constantly busy.

The Best Big Gun Marksmen on Earth—How Our Sailors are Trained



Setting the Sights



Working a Six Pounder



Aiming a Gun



An Officer Spotting the Target—Assistant Passing his Order

SOME time during the coming summer Rear Admiral Evans will command the most powerful fleet of fighting vessels ever assembled under the American flag. Twelve battleships, five of them new, six armored cruisers and sea warriors of other types will compose this mighty modern squadron.

When it is remembered that back of the guns of this fleet will stand the crack naval marksmanship has inspired wholesome respect all over the globe, it may be understood why the nations are anxious to avoid Uncle Sam in the conflict.

Admiral Farragut once said that "the best defense for your own ships is to keep a steady stream of rapid, well-directed fire upon the enemy." Should the United States Navy again be called to active service, reliance will be more upon the men behind the guns than upon heavy armor.

Not long ago the battleship squadron returned from its annual spring gunnery practice off Guantanamo, Cuba. Records made then were forwarded to the Navy Department, and were extremely gratifying to all concerned. They show that the American gunner can outshoot the world.

It is only through careful and persistent training, however, that the crew of a 13-inch gun can score 93 per cent. of hits, as has been done from the Alabama, or that every one of ten shots from a 6-pounder, fired in 33 seconds, can be made to count, as the record of the Illinois shows. Such results have been made possible through the gun practice system now in vogue.

UNCLE SAM is a great believer in school. He never permits his naval boys to feel that they have stopped learning; that there is not another height of attainment just beyond to be climbed. Every spring, therefore, he gives officers and enlisted men alike a thorough examination in practical work.

In the fall there is another examination, but it is to test ships. Advancement made by the personnel of the service is considered in the spring trials.

Gun practice in Southern waters during the spring months by no means marks the limits of the school term. That term extends from enlistment in the service to retirement, but the annual examinations show the standing of the pupils and indicate the efficacy of the system.

More than anything else Uncle Sam is anxious that his sailor boys shall develop into expert marksmen with both big and little guns. Almost any body of men would look well in nice new uniforms, standing upon well-polished decks, but now and then a navy is called upon to fight. In such a contingency it is the expert gunner, whose work tells.

American sailors have every reason to be proud of the records made by the navy in war. The bloody decks of the Guerriers, the Macedonias, the Java, the Peacock and others of the enemy's craft attested to the gunnery of United States seamen in the War of 1812.

By the same token, credit reflects upon the crew of the British frigate Shannon, which overwhelmed the Chesapeake in Boston Bay. Captain Broke, of the Shannon, was one of the few English commanders who compelled gun practice. Against their experience and ex-

perience the nondescript and untrained crew of the Chesapeake had no chance.

Almost upon the first round of the battle in Manila Bay Admiral Dewey's marksmen put the Spanish warships out of commission. Gunnery won the running fight off Santiago; the Don's ships were swept by such a terrific and accurate hail of missiles that his men could not stand at their posts.

When China became engaged in her war with Japan she offered \$600 a month to expert gunners for her navy. It was then too late. Gunners must be trained long and carefully, and those capable of responding on equal or better terms to the shots of the Japs were tied up in their own navy.

Not only is the honor of superiority in gunnery highly prized by the ship's crew holding the record, but experience brings a considerable financial reward. Gun pointers who make records receive from \$2 to \$10 a month in addition to their regular pay.

Almost any man in the navy who is able to shoot at a well won something, so anxious are the authorities to encourage marksmanship, Congress appropriates about \$20,000 to be awarded each year in cash prizes, and this money is distributed as generally as possible to foster friendly rivalry.

Naval armament is divided into three classes—"heavy," which includes the 8-inch and larger guns; "intermediate," those from 4-inch to 7-inch, inclusive; and "secondary," meaning all guns under 4-inch. Almost as soon as they go aboard ship the enlisted men begin taking lessons in handling such guns.

It is rightly regarded as a great achievement when a 13-inch gun can be loaded and fired in 32 seconds, as has been done on the Alabama. Five years before that record was made the official time allowance was 4 minutes.

This simply means that the largest guns have become rapid fire. There seems to be little use longer for the secondary battery, and it may be eliminated from battleships of the future. In fact, plans to equip fighting vessels with large batteries of 10-inch and 12-inch guns, cutting out the intermediate sizes, have already met favorable consideration.

Continuous gun firing is the basis of present-day instruction in naval marksmanship. This is the art of keeping a weapon trained on the target under all conditions.

It is only at certain times that shells are fired at targets. Were this done at every practice of a gun crew the expense would run to prohibitive figures. During the spring practice off Guantanamo shells are used, but in most of the practice during the remainder of the year training exercises consist principally of loading and pointing.

"DUMMY" FIRING

Experience in "dummy" firing, however, enables a gunner to make many hits in actual work. "Continuous aim" practice is helped along by a "dotter," a mechanical device which causes a small target to move across the face of the gun with a combined vertical and horizontal motion.

The pointer must make the gun follow the target. When the sights rest on the bull's eye he presses a button. This causes a pencil to dot the target and constitutes a "shot." In the Morris tube system, also employed in the navy, a small shooting gallery rifle is fitted on the gun and it does the work of the pencil.

Such exercises are for training in gun pointing when no actual shots are fired. In addition, the men are given practice with the loading machines, as next to accuracy of aim, quickness of firing is essential in battle.

In sea practice, when shells are fired, two kinds of targets are used, or, rather, similar targets are used in two ways. In one case the target is stationary, anchored about 200 yards away, and the gunners aim at it while the ship is moving. In the other case ship and target are moving in opposite directions, the target being towed by another ship.

These targets are usually square pieces of sailcloth hung upright upon rafts. A black bull's eye in the center and squares bordered by black lines mark the value of

the hits. The ships, cleared for action and with every man at his station, steam past the target at a speed of ten or twelve knots an hour and fire upon them at a distance of 200 yards or more.

One such target shows seven holes made in eight shots from a 13-inch gun. During the winter of 1902-03, soon after the present system was adopted, the battleship squadron, practicing in the Gulf of Mexico at targets of not more than 400 square feet, made a remarkable record.

The smallest percentage of 13-inch guns was 40 per cent. of hits, the largest 75 per cent. The 8-inch guns averaged 53 per cent. of hits, and the 6-inch 54 per cent. Six-pounders of one ship made over 82 per cent.

Later, a turret crew of the Alabama made fifteen hits in sixteen shots, an average of over 93 per cent. Rapidity of fire with the great guns had also greatly increased, averaging nearly one hit a minute. No opposing vessel could withstand such a terrific bombardment of heavy missiles.

Remembering that these targets are much smaller than a fighting vessel, the effectiveness of such good aim can be appreciated. In war many of the shots that do not count in practice would strike home.

Instructions in gunnery are not confined to the largest vessels and to the men handling the big guns alone. Cruisers, gunboats and torpedo craft also engage in target practice.

In practice such as that at Guantanamo there are usually six torpedo boats, the flotilla of the recent maneuvers consisting of the Lawrence, the winning boat; the Hopkins, the McDonough, the Truxtun, the Worden and the Stewart.

Three kinds of guns are employed—the torpedo gun, the three-inch and the six-pounder.

The target for the three-inch and six-pounder consists of a sheet of canvas on a raft towed by a tug. For the torpedo gun the target is the water itself; two boats glide at a distance of about 200 feet apart, and the gunner tries to hit the water midway between them.

MARKER BOATS HIT

On more than one occasion a marker boat has been hit, and the observers, standing there with their field glasses, have been obliged to take to life preservers.

Excepting for the absence of a watchman, the torpedo employed in practice is the same as that which shells are used in battle. In the cases of the other guns the shells are the same as are used in action.

Imagine the decks cleared for action, the men standing at the guns, the commanding officer on deck with his glass, a man with a megaphone at his side, the white target bobbing up and down over toward the horizon.

Each boat is given a time allowance of forty-five minutes, and the test is to fire the greatest number of shots and make the greatest number of hits in that time.

Both the boat and the target are under way, which necessitates a constant changing of sights and keeps the gunner on the alert.

While to the gunner is given most of the credit for success, his task of aiming the gun at the target and putting the trigger in by no means sufficient in itself. Much depends upon every man, even to the loader and the assistant, who stands back of him handing him the shells.

His eye to the telescope, the gunner watches the target, swerving the gun to right or left, up or down, as occasion necessitates. On the glass are two lines intersecting at right angles in the center, and it is the gunner's object to keep that intersection on the target. When he thinks he has it there he fires.

Glass to eyes, the commanding officer observes where the shell strikes, whether on the target or the water. He makes rapid deductions.

Perhaps a rising wind has deflected the shell, or a change of distance between the boat and target may have affected the shot. Quickly determining the cause, if the shell has missed, the officer decides whether the sights should be lowered or raised for the next shot. He communicates his decision to the sailor immediately behind him, who in turn promptly repeats it through his megaphone to the gun crew.

The sight-setter, standing to the right of the gunner, takes the order and adjusts the sights. If the order has been correct, if the sight-setter has accomplished his work properly, if the loader has not bungled, the gunner should, with the next shot, hit the target.

In the recent practice at Guantanamo, First-class Gunner Mate C. H. Glass, who proved the best marksman of the crew of the Lawrence, the winning boat, made eleven hits out of twenty-one shots in 45 seconds. The average for the crew was from eight to nine hits per minute, a very high record with a six-pound gun.