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# POPULAR SCIENCE

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By  
EARL CHAPIN  
MAY



# America FALLS IN STEP TO CALL OF Drum *and* Bugle

THEIR members ranging in age from eight to sixteen, competing drum corps recently marched and played before critical judges in Philadelphia, Pa. These school children, led by tiny drum majors, professionally whirling their batons, demonstrated their proficiency and the popularity of the drum corps. For this Philadelphia contest was not unique. In thousands of other towns and cities, similar contests are held each year. Nor is this surprising in view of the fact that the drum corps is America's basic musical unit. It was important in Colonial times and as the fife and drum corps it flourished through the Revolutionary War, the War of 1812, the Civil War, and survives in the annual G. A. R. reunions.

The World War restored it to national popularity. Since then more than 20,000 organized and well-trained public-school bands and more than 30,000 high-school orchestras have been scientifically developed and continue to function. All of them, however, are founded on the drum corps, of which several thousands are now active in this country.

The drum corps is basic because nearly every boy and girl is born with a sense of rhythm. Our cavemen ancestors beat time on hollow logs. The Chinese have been beating time on calfskin drumheads for 30,000 years. Human hearts beat rhythmically; the earth rotates rhythmically; we breathe rhythmically; hence, we inherit rhythm.

Thus it happens that Charles Goodhall of Sedan, Kan., can assemble twenty-four girls from the Sedan public schools, where they have been taught the meaning and length of musical notes; can refresh their memories about full notes, half notes, quarter notes, eighths, sixteenths, thirty-seconds, sixty-fourths, and grace notes by diagrams on a blackboard; can instruct them in holding drumsticks and making rolls and in a few weeks turn out a group of skilled drummers. All of this, the result of lessons given twice weekly, with a maximum of forty-five minutes a lesson.

For the same reasons Professor O. H. Gerlat can begin at the School of Engineering, Marquette University, Milwaukee, Wisc., with an equipment of twenty snare drums, two bass drums, twenty ordinary or "soprano" bugles, four bass bugles and two bass



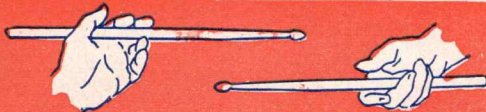
drums on December 1, and on the following March 17 can send his boys out for an exhibition drill and parade to celebrate St. Patrick's Day.

An example of how easy it is to start and develop a drum corps is found in the public schools of Springfield, Mo., where a high school chorus has been taught to sing "by rote." Applicants for the drum corps were lined up and marched around the school auditorium to piano music. Those who did not fall into step readily were eliminated. Final selections also were made by size, to secure uniformity in marching appearance.

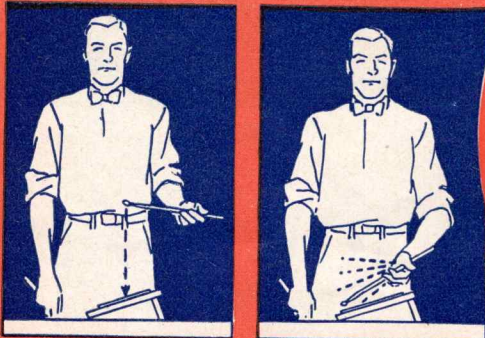
Those finally selected were taught, by example, to hold the left drumstick between the thumb and first finger and the

second and third finger; the other stick gently wrapped in four fingers of the right hand. Having readily achieved the first necessity of successful snare drumming, they began on a simple "mama-dada" roll—two strokes with the left hand for "mama" and two strokes with the right hand for "dada".

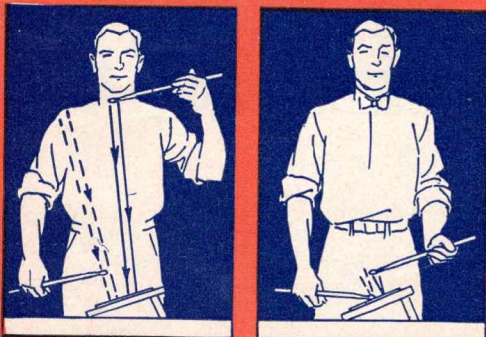
After this, the first of the classic fundamentals which have been indorsed and used by master drummers for more than two centuries in Europe and America, progress toward speed and variety can be made rapidly. But snare-drum sticks



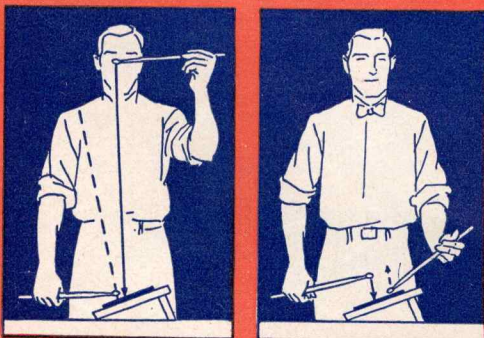
Correct method of holding drumsticks for street playing. Note the difference between right and left hands



The drawing at the left shows the open single tap as done slowly, at the right as done "closed" at a rapid speed. The player is using a practice pad for a drum



The familiar long roll, beginning, at left, with open beats, two to each hand. As the roll is "closed", the hands are brought closer to the pad, as at the right



Left, the high left-hand flam. The beat is alternated from hand to hand. In making the flam at faster tempo the hands come down close to the pad as shown at right



Lee Suttel, drum major of an American Legion Corps at Buffalo, N. Y., with a cup he won as the champion baton twirler of the Legion, in a contest at a convention

must be held in this manner if the drummer is to attain excellence and learn to drum tirelessly.

The famous Sanford A. "Gus" Moeller, teacher of many drumming stars and author of text books on drumming, once put on his Colonial drummer's uniform, hung his deep, army-style drum over his shoulder and, just because he had long wanted to enjoy a real march with a drum, walked and drummed his way from New York to Boston. He completed the trip of about 250 miles over the Boston Post Road in eleven days, marching every foot of the way and beating his drum at every step.

During nighttime stop-overs, he gave drumming exhibitions before American Legion Corps and before other corps belonging to the New England Drum and Fifers' Association. By carrying his drum and holding his sticks in the traditional rudimental manner, Gus made the journey without raising one blister on his hands.

James M. Spencer, who joined the Union Army in 1861 as a

style drum. A shallow drum has not enough "body" for marching.

James Whitcomb Riley drummed with the Greenfield, Ind., boys from 1868 to 1878, which may explain why he was so adept at writing rhythmic poetry.

Arthur "Dad" Rackett, who has been beating the "side drum," or snare drum, since 1874 and still does the long roll or "Mama-Dada"; marching tap beats, with or without "flams" or grace notes; "ruffs", strokes and "drags," "ratamacues", "paradiddles" and all the other tricks with drum sticks that experts can do, is probably the oldest active rudimental drummer, for he is still on the job at the Wisconsin Veterans' Home. Dad volunteered for the World War and became the white-haired drummer in the 1918 version of "The Spirit of '76."

Dad is the son of a drummer. So is George Lawrence Stone of Boston. In fact, Stone is the fourth generation in a family that has drummed professionally. Hence, it is not surprising that he should be the drum instructor of Marlboro, Mass., Drum and Bugle Corps which started in 1930, made its first important public appearance at the American Legion national convention at Boston that year,





## Snappy Military Units Provide a Treat for Eye and Ear as New Fad Sweeps the Country



This snappy corps, representing a Baltimore, Md., Legion post at a convention in Kansas City, presents a fine appearance on parade

and became the Legion's national champion drum corps during the Chicago convention and contest of 1933.

Nearly 250 Legion drum and bugle corps were in the annual parade at the Chicago convention. Almost every State in the Union was represented. A majority of the corps entered the annual contest. Hence, when Marlboro became the national champion it had to show something in playing and drilling. The Marlboro corps was typical of the Legion in that only two of its players were professionals, a proportion that will hold good for most of its 2,000 or more drum corps.

Stone is, of course, a "rudimentalist" and not a "catch as catch can" or "scratch" drummer. To reach the prize-winning class in any of the local, county, state, regional, and national corps contests held from the Atlantic to the Pacific each month in the year snare drummers must be trained in the rudiments.

In order to make this training as painless for the public as possible, pupils are taught, not on resounding drumheads, but on little rubber practice pads. From practice pads, the pupils go to drums. Under proper instruction it does not take long to teach a group of normally intelligent men to play the drum and bugle. The North Chicago Post of the American Legion ordered corps instruments and obtained an instructor in February, played creditably on the local Memorial-Day and Fourth-of-July parades the same year, and during the September won fourth place against thirty contestants in the Illinois State Drum Corps Contest.

The buglers had a tougher time of it. Buglers must not only have a

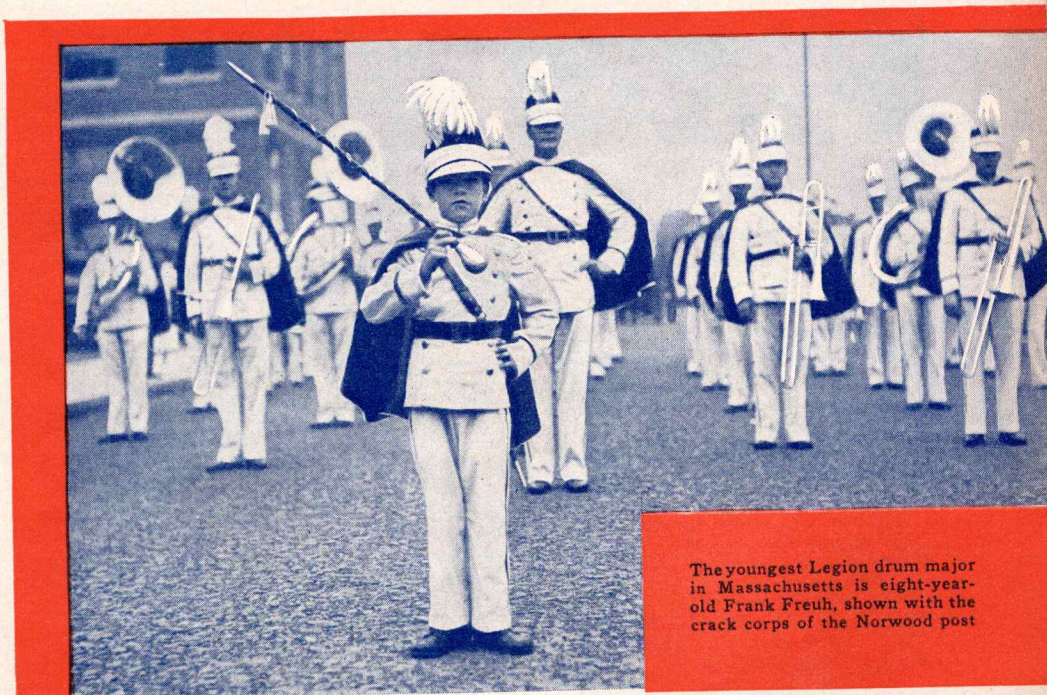
sense of time or rhythm, they must also have a sense of pitch or tonal altitude, must be able to tell a high tone from a low tone by ear. Tone is the result of vibration, the faster the vibrations the higher the tones. Tones, properly associated, make a melody. Also, tones, properly superimposed, make harmony. But the first problem in bugling is to make some kind of a tone.

The old army or regulation bugle has no keys or valves and yields "open tones" only—C, G and E, for the Reveille and other bugle calls heard so often in army camps.

A good teacher shows his pupil, by example, that his lips must act like rubber

bands and be laid loosely against the bugle's cup-shaped metal mouthpiece; cheeks drawn in rather than protruded; the tone attacked by a quick stroke of the tongue between the lips which must not be too close together. Only a little breath is required for such tone making. The higher tones are made by drawing the lips tighter, the lower tones by loosening the lips. Under no conditions must the mouthpiece be pressed against the sensitive lip muscles.

By using this non-pressure system, sore lips are avoided and a bugler can play almost forever without being tired or without playing blue notes. In my youth we blunderingly played high notes by



The youngest Legion drum major in Massachusetts is eight-year-old Frank Freuh, shown with the crack corps of the Norwood post





A prize-winning American Legion drum and bugle corps about to go into action in a national competition. Military bearing and striking uniforms are important to success

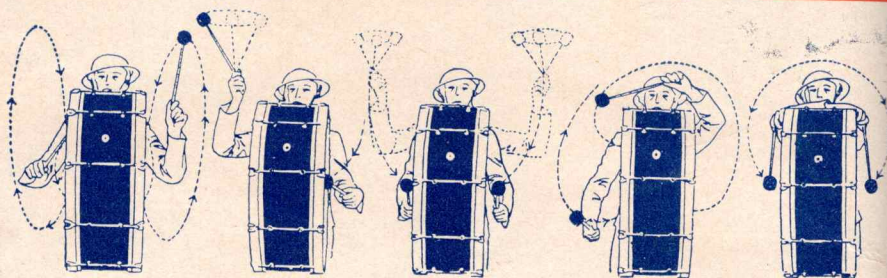
punching the mouthpieces against our lips. The lips were therefore crushed against the teeth. As a result, the buglers' lips either became leather or were as sore as boils and were useless after an hour or so of playing. With the modern, non-pressure system, good tone is always possible and the bugler, like the rudimental drummer, can go on forever. A five-hour march does not faze him.

Nearly all beginning buglers naturally sound the note "G" on the staff. Tests with a blackboard and a teacher's bugle soon teach the young pupils to pick out the C and E on the staff. Later they learn to reach the G and C above the staff and to find the C below the staff. A few hours of this fundamental teaching and the buglers are started on tunes.

John Philip Sousa was one of the pioneers in showing the possibilities of drums and "open tone" bugles. In 1888 he wrote a Trumpet and Drum book which included not only the rudiments of drumming but also a march for drums and bugles which he entitled, "With Steady Step." A few years later the March King wrote part of "With Steady Step" into the trio or last movement of his famous "Semper Fidelis," first played by the celebrated Washington Marines Drum and Bugle Corps.

The recently introduced piston bugle has changed the tonal picture for adult as well as juvenile corps. Open-tone bugles are usually in the key of G and only G, C, and E, with their octaves can be sounded. A piston, or single-valve bugle, adds four tones to the standard or open-tone instrument. Also, baritone or bass bugles are built with longer tubing, which makes their tones an octave lower than the standard instruments, thus giving body to the music.

That is why your surprised ears have been hearing in recent parades of drum and bugle corps "Susan Jane," "The Cavalier," "America," "Onward Christian Soldiers," "These Are My Happy Days," "Auld Lang Syne," "The Long, Long Trail," "Who's Afraid Of The Big, Bad



Doing the Scotch Twirl on the bass drum

Wolf?" and a dozen other old and new favorites which were formerly played only by bands.

Enlargement of scope in bugle playing, plus increase in the numbers of rudimental players have encouraged the organization of so many drum and bugle corps that thousands of youngsters and adults are marching forward toward national harmony, toward a creative use of leisure.

As an example of how quickly the rhythm and harmony idea takes hold there is the little town of Chelmsford, Mass., not far from Boston. Last Christmas Guy E. Hazeltine proposed a junior drum and bugle corps for his American Legion Post at Chelmsford. His Post promptly made him chairman of a Drum Corps Committee which sent out a circular letter explaining to parents, public-school teachers, and other adult citizens why a Junior Corps would be beneficial.

The Legion offered to buy the equipment. The public bought most of it by attending card parties, concerts and other benefits. Instructors were secured at a modest figure. George McElroy, who made "Dot" Slamin the national junior champion drum major, voluntarily took the Chelmsford junior drum majors in tow. Soon the Chelmsford Juniors became a civic institution.

Thus are the older musicians preparing for the time when they can no longer thump and bugle; thus are good Americans carrying on a tradition going back to Colonial days; thus are we living in a new era of rhythm and harmony, for we have never had so many drum and bugle corps as we have today.



George Lawrence Stone, veteran teacher and a descendant of a drummer in the Revolutionary War, shows how to hold sticks for rudimentals