



FIGHTING MEN OF THE WEST . . . SITTING BULL

Back from Canada he came, to call his brothers the buffalo to one last hunt with the Sioux. But the buffalo had gone into the earth and only the Long Knives were there to meet him. At peace on the Reservation, hunger faced his people and the ghost dances began. "Uprising," cried the papers. Washington sent Sgt. Bullhead's Indian police to arrest him. They came upon him sleeping and dragged him naked into the December cold, that fateful 15th in 1890. A struggle, two shots, and Sitting Bull died, killed by his own people, Indians in the whites' uniforms of hateful blue. It was best: dead, too, were the buffalo.

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Guns

MAGAZINE

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COVER

Two Colt revolvers of the Mexican War type, Called "Walker pistol" after the man who helped design them, they are top collectors' items today. But one is not "right": see story, page 33.

GUNS are BIG BUSINESS

DEALERS MAKE FORTUNES AS COLLECTING GROWS
IN POPULARITY AND CLASSIC GUNS BECOME RARE



By WILLIAM C. L. THOMPSON

MERICA is going gun-happy! Not since the height of World War II A when 15 million youths shouldered arms to defeat Hitlerism have so many Americans taken up pistols and rifles-as hunters, collectors and just simply for protection of their homes. At latest count, more than one out of eight people in the U.S. owned a gun of some sort.

What is behind this sudden gun craze, nobody knows. But whether it is the popularity of Roy Rogers on television, a hangover from the war years when GIs started collecting weapons overseas or simply increased prosperity for John Q. Public, the fact is that with collecting becoming one of the fastest-growing hobbies in the land, guns have become big business. And gun merchants have become big businessmen.

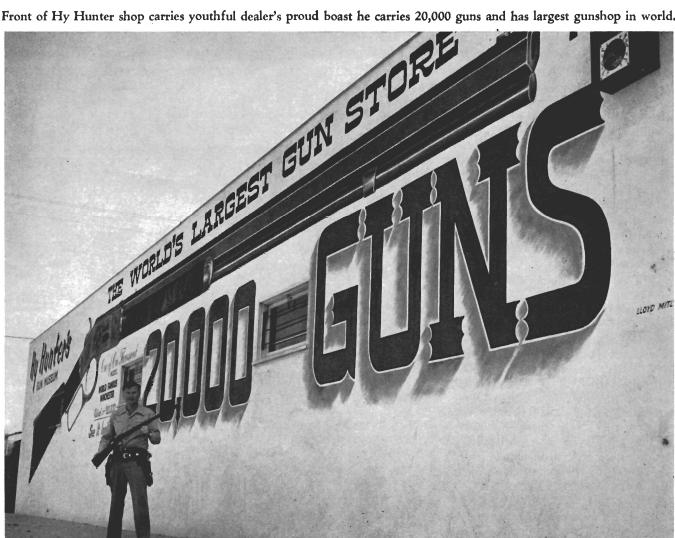
Gun shops and gunsmiths, sporting goods stores and rifle factories have been hard put to keep up with the demand for weapons. And the supply of antiques available for the nation's 200,000 collectors is rapidly dwindling so that prices for ancient guns keep rising with the ceiling the limit.

Old pistols are mounted on ceiling at Hy Hunter shop by his brother, Lou. Customers make gun selections from ceiling display.



Dealer Hy Hunter (right) and Hollywood cowboy Audie Murphy examine new Great Western Frontier in Burbank shop.

Front of Hy Hunter shop carries youthful dealer's proud boast he carries 20,000 guns and has largest gunshop in world.





Details of newly-purchased rifle are explained to customer in Hy Hunter shop by salesman. Hunter employes total more than 25.

The shrewd businessman may be disarmed by Hunter's friendly manner and a smile like a confident jack-o-lantern—but all this is a mask for a head just chock full of brains.

Hunter started in a small way—about \$800 mustering out pay and the so-called "assets" of a rod and gun shop which he bought. But from there on he went at it day and night. Never take out of the business more than you take in—and keep personal and business accounts separate are rules he followed. Hunter has plowed profits back into the business, buying guns.

Publicity is one thing which many store owners are short on, but this is Hunter's long suit. For several years his catalog of Single Action Colt prices reflected values fantastically higher than those on the Eastern Coast. The publicity given to these guns through his catalog prices resulted in a spiraling increase in prices, which has not hurt Hunter's business one little bit. Operating on sound business principles has helped Hunter build his shop to major size. He at-

are fattening their bankbooks almost overnight. Consider the case of Hy Hunter, an ex-serviceman of Burbank, Calif., who claims the world's biggest gunshop. Broke in purse but determined to make a million before 30, Hunter left the Army after three years in the Pacific and opened for business with only three guns. Today he is only a year shy of 30 and perhaps a hundred thousand short of his finan-

cial goal. Last year he grossed more

Relative newcomers to the business

than a million dollars.

The secret of Hunter's success is simple but it is no miracle. He cashed in on the hottest hobby in the landguns. As president of the American Weapons Corporation, he is one of dozens of big dealers in the country—the largest of whom are Klein's of Chicago, Abels' of New York, Red Jackson of Dallas, Herb Glass of Bullville, N. Y., Kimball of Woburn, Mass. To compete with these oldtimers, Hunter displayed a merchandising touch with a Hollywood flair to zoom to the top of the gun business in a few years.

Romanticism of Wild West and Mississippi riverboats are symbolized in Hy Hunter items like percussion Colt, derringer and Colt Peacemaker.





Remington rolling-block rifle is admired by woman customer. Rifle is Mexican surplus from days of Pancho Villa.

tempted to get bank loans several times but was always turned down because bankers had no faith in the gun business.

Hunter's original shop has grown—he now operates several stores: Hy Hunter's Rod and Gun Shop, the Early and Modern Firearms Co., American Weapons Corp., and probably one or two others.

Manufacturers have also done well in the postwar gun boom. Many are in the enviable position of being behind schedule. Not only have the old line companies—Smith & Wesson, Colt, Remington, Winchester, Iver Johnson and Harrington & Richardson—survived reconversion and forged ahead, but several important new companies have been started. High Standard, founded in 1929, had a hard pull through the depression years. Then war contracts for small arms, gun barrels, and machine tools built the Hi-Standard fortunes, and established the company as a major arms maker, for peace or war.

The new firm of Sturm, Ruger and Co. of Southport, Conn., is making .22 target and plinking pistols. Their first pistols were cheap to manufacture but were accurate, match-winning guns. Now they have hit a gold mine in the manufacture of a modern Single Action revolver in .22 caliber for plinkers only.

The Single Action craze, which started in Hollywood, has gone full circle and wound up there at last. The old Hartford thumb buster is now in production by a new company, the Great Western Arms Co. of Los Angeles. Their products are very close to Colt originals, though of course there is no connection between the two com-

panies. When Colt stopped manufacture of the gun in 1947, they defaulted all claims they might have had to the design. But the demand continues and two makers are now busily at work supplying it—makers who a few years ago did not exist.

The story of the current gun boom really begins during the years immediately after V-Day. These were the days when American weapons could be purchased in Europe for fantistically low prices. Consider some of these price tags:

Genuine Colt automatics, 45 caliber, new, only \$16. 38 Smith & Wesson revolvers for \$8.40.

Colt Lightning .38's, like new, only \$4.20.

Winchester lever action rifles, old model, fine working order, only \$1.50.

Remington cap-and-ball 44's, perfect bores, only \$6. This was no dream! These were the actual prices paid for these American firearms in the postwar years in Europe.

And oddly, America faced a gun shortage.

After four years of all-out production of military guns, there was little left for the hunting and sport shooting population. Manufacturers suffered from reconversion problems, steel controls, shortages of every kind.

To top it off, the supply of second-hand guns had been reduced during the war years by eager purchasing commissions from friendly foreign powers, who scoured the nation buying every type of gun available from 1939 to 1944. The headquarters of the British Ministry of Supply Mission in Washington continued (Continued on page 48)



WHY DID RUSSIANS WALK OFF WITH WORLD MEET? MAYBE IT'S BECAUSE WE MATCHED TOP AMATEURS AGAINST THEIR BEST PROS!

By JAMES CRANBROOK

No athletic defeat of the past decade has so nettled American sportsmen as the sound trouncing handed U.S. nimrods by a sharp-shooting Soviet team in the International Shooting Union meet in Venezuela. As a country that prides itself on being "a nation of marksmen," the U.S. turned in a sad showing, totalling less than half the points scored by the Russians.

What was behind this debacle? Are the Russians really twice as good shooters as the Americans, as the final tally in the two-week meet indicated? Why have the Soviets suddenly become crack shots, when in previous years they had no standing in international gun contests? What is the real truth about the high standard of shooting by the men from Moscow?

Perhaps the answer is to be found in a single off-the-cuff observation by a leading Olympic official recently: America is matching its hest amateurs against Russia's best pros in sports contests. In most









Top Soviet shooters at Caracas meet were P. Avilov, small bore shooter; Anton Jassinsky, 50-meter free pistol champ; Anatoly Bogdanov, first in all-position event; and Vassily Borisov, who scored 400 out of 400 in small bore rifle prone.

cases in the past our best simon-pure athletes were better than the finest that Russian rubles could buy. But the highly-paid, well-heeled Soviet professionals are beginning to catch up and in many cases surpass our amateurs. The result was seen at Caracas where 50 Russians, accompanied by the usual delegation of political commissars to keep sharp watch over them, decisively beat a team of 36 Americans, who wound up a poor third behind Sweden. The final scores: Russia, 78; Sweden, 57; U.S.A., 34.

Twenty new world's records were set—15 of them by the Russians, who collected 11 individual titles. One member of the Red Army team, Anatoly Bogdanov, who holds one of those typically-Russian titles of "Merited

Master of Sport," won the high power three-position event with a score of 1174. The Red Army unit walked off with the 300-meter shoot, scoring a new world's record of 2681 X 3000. The new mark breaks the record set by the Swiss team in 1939 by 74 points.

The Russian showing was impressive. indeed, and there were many observers in the audience who saw the Soviet victory as a foretaste of things to come at the 1956 Olympics in Australia. It well may be that. For the Soviets are determined to win in 1956 to demonstrate to the world their supremacy over what they term "degenerate democracy." The entire resources of the vast country's 200 million people have been mobilized to that end. And more important for our amateurminded American sports fans, so has a healthy portion of the government's almost unlimited finances.

These are the facts of Soviet life that some of our own sports officials are wont to dodge in their zest to compete against the world's best. In their enthusiasm for competitive sports, they gloss over the undisputable truth that Russian athletes are bought and paid for. These were the gunners who shellacked our best in Caracas.

And these will be the gunners Ameri-

ca will face in the future if we are to continue to compete with the Russians since the sobering reality is that the Soviets simply do not have amateurs, as we know them. And we in America do not have pros to match against Russians when it comes to target shooting.

But even if the Russians are pros, some may ask, why are they so much better than the best in America? What is it that makes Marxmen such good marksmen?

Consider the all-out technique of the Soviet leaders in any endeavor and reasons for their superiority becomes evident. Russia is a dictatorship and as such, is able to mobilize the entire country with its ruthless methods. Guns and marksmanship have been impressed upon



Poligono Conejo Blanco target range ringed by mountains around Caracas is considered one of best courses in world. Total of 500 marksmen competed in event.



Soviet working girls must learn about rifles, take marksmanship tests. Here girls in Alapaevsk metal plant study parts of Soviet-made M91 rifle.



Soviet factories have target ranges and workmen must practice regularly. Leningrad factory hands try out marksmanship on factory course.

Hunting is popular among Soviet sportsmen. Moscow group relaxes after bagging ducks with single-barrel shotguns in swamps near Russian capital.



its people as the Soviet way of life.

It was only ten years after the Russian Revolution in 1917 that Soviet bosses set up a government-run and government-financed athletic program that played up the importance of gun aptitude. This was part of pre-military training. "Osoaviakhim" was the name tagged onto the athletic association, that promoted such questionable sports as motor vehicle operation, parachute jumping and flying besides shooting. The military nature of "Osoaviakhim" was easily discernible.

But the Soviet bosses insisted with a straight face that they were interested only in sport for sport's sake. Civilian rifle and pistol clubs were set up everywhere throughout the vast stretches of the country. Schools and universities were enlisted in the program, and two hours a week training for six years was compulsory. Virtually the entire population was screened for the most talented marksmen.

The best were sent to camps with all expenses paid, given free guns and ammunition to develop their skill with rifles and pistols. It was not a matter of just finding the best shooters and sharpening their target aim. Rather Russia's masters were interested in mass marksmanship. And on the eve of Hitler's invasion of Russia, Moscow had succeeded in checking out as socalled "Voroshiov Marksmen" or better no less than 8,000,000 men and women. This was no grandiose title of small meaning. Named after a Red Army big wheel, the Russian honor title was bestowed upon those who scored over certain standards not only in ordinary target shooting but also in the firing of light and heavy machine guns. They also had to pass courses in theoretical musketry as well as small arms maintenance.

Nationwide competition in target shooting began at the lowest community level and the best marksmen slowly had to make their way through elimination matches held from Moscow to Vladivostok. The man with a gun who could shoot straight became a genuine hero who was paid off not only in honors but in rubles as well. Top gunners were rewarded with long weeks in warm-weather camps in Caucasian resorts where they were furnished all their equipment absolutely free. Top-rated shooters had their rifles custom-built by the government.



On deer range in Caracas, Vitoli Romanenko practices with E10 Ross straight-pull rifle of pre-World War I vintage, which is custom-stocked with "Swiss butt" and special target sights. Gun is possibly rebarrelled to 7.62 mm.

barreled to the improved 7.62 Russian caliber, or possibly in its original 280 Ross caliber, he had a gun to his satisfaction. The straight-pull action was fast in rapid fire, and if he paid attention to the bolt, and did not reassemble it incorrectly, the gun should hold together.

Bogdanov in the 30 caliber events used a Russian built

Bogdanov in the 30 caliber events used a Russian-built rifle of a new "free-rifle" pattern. And like any new rifle which falls into the hands of a (Continued on page 47)

With such an incentive, Soviet marksmen indulged in hours of daily practice to maintain their aim.

When the German invasion came in 1941 and the Russians mobilized, more than 60 per cent of the recruits in the Leningrad district were Voroshilov sharpshooters. And yet oddly enough, the Russians were careful whom they allowed to shoot. Wary of so-called "counter-revolutionaries," or what we would call people who did not like the Communist way, police required permits for the purchase of a gun. Manufacture of firearms was strictly a government monopoly. But still gun ownership was vigorously promoted and marksmanship cultivated.

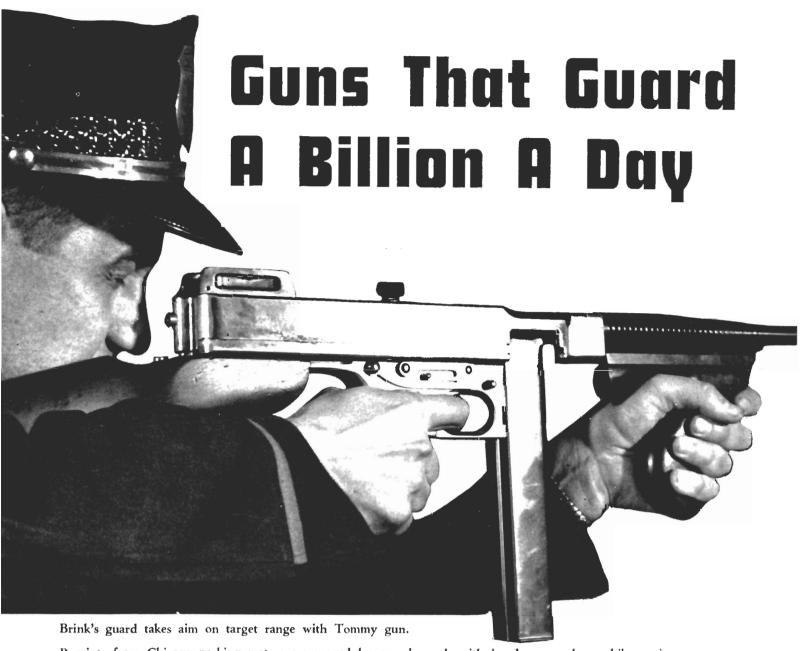
During the war this training paid off; Russian snipers were much more effective than Soviet army strategy in stopping the Germans. When a two-front war finally crushed Hitler's armies, the Russians did not drop their military-mindedness as did America and its Western allies. Instead in 1946 "Osoaviakhim" boldly announced a renewed marksmanship campaign and set its goal as winning world domination in shooting. At Caracas in November the Soviets achieved their aim.

However, the Soviets have not as

On rifle range near Moscow, "Master of Sport" A. Rolinsky shoots erect at 300 meters with Moisin-Nagant M1891-30 sniper rifle with mounted bayonet.

yet made good on another objective—to produce the best factory-made guns in the world. It is odd that one Caracas competitor, Vitolii Romanenko, unearthed a 40-year-old rifle of a type condemned by western marksmen as being actually dangerous to the shooter. He used the obsolete E10 Ross made in Canada before World War I. Refurbished with a new stock, Swiss International buttplate, and possibly re-





Receipts from Chicago parking meters are moved by guards, each with hand on revolver while carting currency.



WITH ARSENAL OF 5,000 WEAPONS, BRINK'S PLACES
HIGH PREMIUM ON MARKSMANSHIP AMONG GUARDS
WHO MOVE TREMENDOUS FORTUNES BY TRUCK DAILY

By HARVEY BRANDT

Nowhere in the world is there a higher premium on good marksmanship than in Brink's, the peculiarly-American dollar-moving institution whose name has become as synonymous with money as the mint. For killing a holdup man, Brink's gives its guards a reward of \$1,000! But if a desperado is

wounded, there is only a bonus of \$500. The result: few bandits are ever wounded in pistol duels with Brink's men.

For Brink's, guns are as essential to its business as iron ore is to steel business. Handling a billion dollars a day in cold cash, Brink's has an arsenal of more than 5,000 weapons and insists on the highest standards of marksmanship among its 3,800 guards in 92 U.S. cities. Men on its 985 armored cars carry ratings as guards, drivers and messengers, based on responsibilities of their jobs. But whatever his rank, every Brink's man can shoot straight. They

GEESEY'S
TOPOGRAPHICA

ANATOMICAL TARGET

ANATOMICAL TARGET

ANATOMICAL TARGET

Special targets, with high score for hitting vital spots, are used by Brink's guards on practice range.

Pistol instructor Francis Fell gives pointers to guard on range. Brink's men are encouraged to practice weekly.



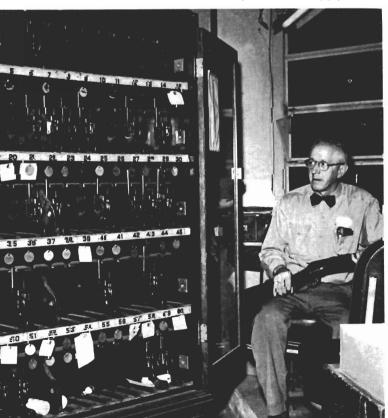
More than 300 medals and trophies have been won by Chicago Brink's guards in national pistol competition.





Cleaning Tommy gun in Brink's armory is Francis Fell, who maintains guns as well as supervises shooting.

Watching over Brink's gun-issue rack is Charley Wild-katsch, who is clerk in money movers' supply room.



practice regularly on the company range to keep their shooting eye sharp.

At the main national headquarters of Brink's in Chicago, a huge squat faceless building on Chicago's South Side, there is a range which is an adjunct of the armorers shop. Here Brink's men line up at least twice a year to take their turn at practice firing. Armor plate backstops—the same steel used in protecting the trucks—serve to halt the bullets. On range the Brink's men shoot 38/44 Hi Speed and 357 Magnum as well as the Tommy gun. Armament of trucks also includes sawed-off shotguns, Winchester 12 gauge riot guns of the 1897 model, and Sedgeley gas guns for firing tear gas shells.

Working full time in instructing Brink's guards how to shoot is Francis Fell, who was a Navy shooting instructor at Great Lakes and Camp Perry during the war. He knows combat pistol training from "hands np" to "you're dead." Firing from a crouch which steadies the gun hand and enables the body to be pivoted for best fighting accuracy is but one of the many sound principles of marksmanship proved on the Brink's range. The old "border shift," drawing with one hand and shifting to the other in case of injury, to continue shooting is routine. Shooting is done at a new design-of-man target, which was prepared by Bob Geesey, of York, Pa.

This target differs from the old Colt Fitzgerald silhouette in several important ways. It is anatomical, with organs outlined accurately in terms of actual killing results. Thus a shot through the liver is scored "4" while one right next to it is only a "2", since such a shot would really go through lung tissue without disabling. The older targets did not even score for headshots, but the new one, with a "5" for vital organs, has stimulated the men's interest.

On pistol range, two guards demonstrate border shift as they draw pistols with right hand ready for firing.



The FBI has recommended shooting at 21 foot distances for training in killing. This agrees very well with the 18-20 foot work of famed speed shooter Ed McGivern. At that range a close simulation of actual gunfighting can be had. With six shots in his gun, the Brink's trainee stands facing away from the target. He then swings about on signal, and firing from the hip blasts two shots each into three side-by-side Geesey targets. About the only improvement on this routine would be for the targets to start shooting back!

Every Brink's man on the outside carries a .38 Special chambered Colt or Smith & Wesson. Instructor Fell doesn't like the new mainspring fitted to Colt revolvers. Although giving a much smoother double-action pull, he claims it slows down lock time. Where split seconds mean life or death, he wants to give the men every chance. And so he replaces the new model mainspring with the older, snappier spring.

Fell's favorite weapon is . . . no, not a Magnum or a Detective Special—it's the Winchester 44-40 Model 1892 Carbine. Short, light in weight, with large magazine capacity, the little Winchesters are more accurate than a handgun. Especially in crowds, use of the rifles has advantages in that one is more likely to hit what is aimed at, than with the instinctive shooting of a pistol. For the men out on the street, a pistol is necessary, but for the several guards who remain in the trucks, the carbine has proved its effectiveness.

Inside the Brink's plant, many defenses keep it secure from the remote possibility of a gangland invasion. Bulletproof glass "pillboxes" jut out from bare walls, and gun ports are everywhere. The Brink's building is honeycombed with sections which can be electrically shut off from other parts, isolating rooms into which bandits might-have broken, and enabling them to be dealt with easily. Concrete corridors are deliberately designed with right angles. Fell has a battery of Springfields and Garands ready to turn loose and spray lead ricocheting down the long corridors.

Entry to the plant is only through a heavy glass door past a bullet-proof guard cage. Elevators convey visitors to the proper floors for business. The hall before the elevators can be easily covered through a gun port.

Throughout the building are heavy steel doors on well-oiled hinges. Upwards of $\frac{5}{8}$ " in thickness, they will stop near anything portable. Artillery might do the job, but then not much would be left of the money.

As for the trucks, nothing short of a 57 mm, armorpiercing shell will crack their hides. Even the undercarriage is armor-plated. Designs of the trucks are highly secret and because of this. Brink's does all its own repairing.

It is a little known fact that for each uniformed Brink's man outside of a bank on delivery, there is a plainclothes man somewhere nearby. The two-bit punk, who has a gun in his pocket and suddenly comes upon the scene of money being carted like tire chains in bags, gets big ideas. But as he pulls his gun, the plainclothes man, ever alert, has already cut him down, and they shoot to kill! This has caused a little ill-feeling among the Brink's people, for it is always the plainclothes man who is getting the rewards!

One of the occupational hazards that sometimes results in ulcers is the prankster. The youngster with a cap pistol, who likes to play cops and robbers, sees a Brink's guard as a perfect foil for his game and many a guard has been

Shifting gun from right to left hand, guards train to shoot with either hand in their pistol battles with bandits.



Taking aim with left hand, guards sight vital spots on anatomical target to score maximum total in gun drill.





Pickups are made by guards at different time every day at banks. One man always stands guard with gun in hand while second guard does actual moving of money.

caught off guard by a junior Jesse James on the prowl.

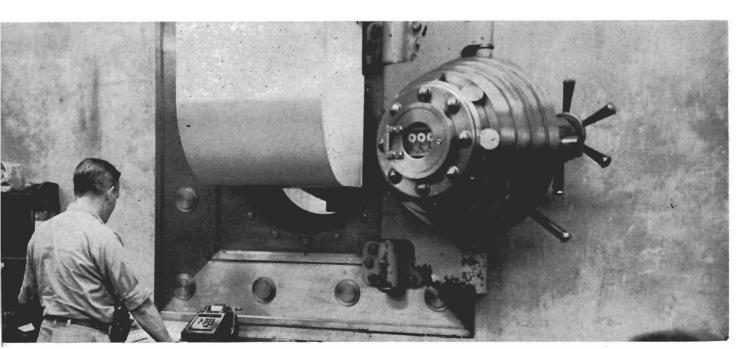
Sometimes the guard will whirl around, primed and ready, when something hard is poked into his back and a gruff voice says: "Stick 'em up." When it turns out to be a five-year-old Roy Rogers, he sighs in relief and then turns his venom on the joker.

But aside from these distractions, life is pretty routine for Brink's men, certainly a long way from the days of stagecoach robbers and highwaymen. It was in the midst of that era that Perry Brink founded the company in Chicago in 1859. Today's neat, well-trained guards have little resemblance to the oldtime tobacco-spitting frontiersman riding shotgun.

In the early days, Brink's men simply outsmarted crooks by carrying money wrapped in newspaper in the streets or on horsecars. But business got too good and wagons and trucks had to be used to carry heavier loads. It was in 1917, when two Brink's guards were killed by a shotgun ambush, that the first armored truck—a second-hand Ford school bus—was put into service and gun training started for guards.

Taught to be excellent shots, Brink's men in the Chicago branch alone have taken more than 300 awards in national shooting competition.

The one thing that gets Brink's men excited is when they are outsmarted as they were in Boston several years ago when more than \$1,500,000 was taken in an inside job. There are a lot of Brink's guards in Boston today who wish, even more than the insurance underwriters, that someone would try to crack their place again. They figure that the main office would have to pay out plenty to the guards at \$1,000 per.



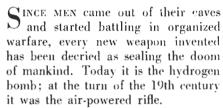
Escape hatch in Brink's in Chicago headquarters is used for emergency in case offices are accidentally closed. Even woman employes in offices carry guns regularly while working at their desks. Everyone over 21 carries a gun.

THE GUN THAT SCARED

Napoleon

SILENT, SMOKELESS AIR-POWERED RIFLE INFURIATED FRENCH, WHO SHOT SOLDIERS CAUGHT USING IT

By FRED H. BAER



These were the days when Napoleon was grasping for power all over Europe. It was during one of the French emperor's campaigns in the Austrian Tyrol in 1808 that a courier from Marshal Lefebre rode breathlessly into Napoleon's headquarters with shocking news:

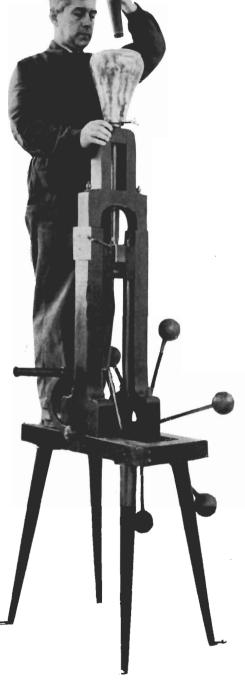
"Sire, the Austrians are using a new

kind of gun-a gun which does not make a noise and which shows neither fire nor smoke at the nozzle when fired. Marshall Lefebre has lost many men due to this gun, and morale among our troops is diminishing fast."

Furious as well as fearful, the emperor did not hesitate for an answer to this new weapon and told the courier: "L'ordre, mon capitain: Marshall Lefebre is to hang or to shoot without trial any of the enemy soldiers carrying such a gun, with no pardon given. Dismissed."

Not dismissed by the emperor was the report on the gun. Meeting an en-

Air-powered rifle was used against Napoleon in famed Battle of Wagram, which he won despite introduction of new weapon that terrorized French.



Air tank of rifle is inserted in upper end of pump to fill it. Water is later poured into copper container at top to keep temperature in air tank down.





Three typical Girardoni air repeater rifles dating from between 1780 and 1810 are hunting models (top and bottom) decorated with engraving and military type (center) with short barrel and with sling swivel for carrying.

tirely new concept in weapons, Napoleon fumed against the civil guards, farmers and villagers who dared use the new air-powered rifle against his troops. No records are available as to how many Tyroleans were shot or hanged when found with the silent killer rifle but it continued to be used long after Napoleon had met defeat for the last time and was exiled on St. Helena.

Certain it is that the dire predictions for the future fate of mankind never came to pass. At one time fear of the air-powered rifle was so hysterical that the town council of one German city publicly banned its manufacture on grounds that "such a murderous gun can kill a man without his knowing where the shot came from."

In terms of military use, the air-powered rifle had a relatively short life of some 35 years-mostly by the Austrian Imperial Army. To the Austrians, the new rifle which fired up to 40 shots in less than a minute with need to change the 20-shot magazine only once was a military windfall. Identical in weight with the conventional infantry musket of those days, the high firing speed of the air gun more than balanced the need for added equipment. Full machine guns of World War I did not shoot faster within a 30-second period than did the fabulous M-1780 constructed by G. C. Girardoni, who lived in a part of the Austrian empire that is now

Gunsmiths were numerous in those days and many of them tried out new arms but few succeeded. One of them was the Tyrolean named Girardoni. Because he lost one arm in 1778 in an explosion of a repeater rifle, Girardoni turned away from powder rifles. After making himself an artificial arm, he switched to air rifles and made history.

His "Windbuechse" of 13 mm caliber (0.507 inch) turned out to be the only air-powered re-

peater rifle ever used in wartime. Within one year he had built the first models of the rifle and presented it to Austrian Emperor Joseph II's war council. After approval in 1779, the rifle was ordered in lots of 1,000. Girardoni got a big workshop, with workers who were put under strict security rules not to talk about construction of the rifle.

Girardoni's idea was simple: fill a container with compressed air, fit a valve to the outlet of the container and connect the outlet with the rear end of a barrel. Then pull a trigger, thereby release the valve momentarily and off goes the bullet, unheard over a distance (close to the shooter a slight whistle created by the expansion of the compressed air would be heard). But-and there the difficulties start-building every one of the 1,000 guns by hand, tolerances had to be quite close to maintain the pressure of the air. The valve had to be robust enough to withstand shocks. The volume control of air flow in general was the biggest problem.

Earlier air rifles had a balloon-shaped bottle screwed either in front of the trigger, or above the trigger on the side of the shaft. Girardoni's model used the stock of the rifle as the container of compressed air. This saved weight, despite the fact that the stock was made from sheet iron.

> The M-1780 was an iron barrel .50 caliber rifle with 12 grooves. Screwed-in brass fittings, the valve-in case of bottle-shaped containers - acted as the inlet and outlet mechanism for the bottle. The air chamber was made from east iron. Later wrought iron covered with nonrust copper was used.

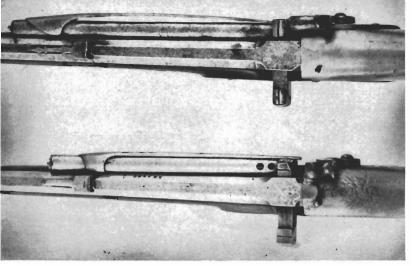
> The compressed air containers were filled by special pumps like the modern bicycle pump. The soldier stepped on the piston "handles" and with the air chamber screwed on to the end of the movable cylinder pumped it





Marshall Lefebre (left) first reported use of air rifle by Emperor Joseph II (right), who first approved manufacture of gun in 1779.

Italian.



Loading mechanism of military (above) and hunting rifle are basically same. Hunting model had holes in magazine.

up and down until it was completely filled.

One man pumped the container until half filled. For increased pressure up to 33 atmospheres two men were necessary.

When pumping air into containers, pauses had to be made to let the cylinder barrel of the pump cool off—and, probably, to let the men catch their breath, too.

Old reports state that about 2,000 strokes were necessary to fill one container. With one filling, the shooter was able to kill an enemy 150 steps off for the first 10 shots (when the air tank was still full or nearly so), but distances decreased, and the next 10 shots were 125 steps off, while the third 10-shot series went down to 100 feet. Sometimes up to 10 more shots could be fired (or blown) at shorter distances with the rest of the compressed air.

Every man in battle got two to four air tanks and ammunition for between 120 to 200 shots.

Military regulations covered the new branch of the army quite soon. General-Staff Captain Baron Mack became the first instructor for the troops in 1788. Four men for every infantry company were the beginning, but after two years—in 1790—an air-rifle corps was founded.

Soon, however, the air rifles became unpopular. Since not enough rifle experts were available in the fields, many accidents happened and created fear among the soldiers. Neglect to service the guns and constantly check the tolerances of the mechanism under battle conditions were the cause of the accidents.

Changed infantry tactics also had outmoded the airpowered rifles. While during the early part of the Napoleonic wars, the enemy troops marched upright to battle, with flying colors and battle music (offering an easy target for the rapid-shooting rifles), Napoleon's new tactic was: "Get down on your stomachs, crawl instead of walk, loosen up the battle line, and fire when you see a target, not in platoons upon command." This made rapid shooting more difficult, if not impossible.

Thirty-six years after the acceptance of the Girardoni rifle, the rifles were transferred to the Olmutz Fort (present-day Czechoslovakia) and dumped into the arms depot.



Cock is pulled to make gun ready for firing. Pulling trigger snaps cock, opening air chamber to fire rifle.

In field every company had pumps. Shooters had to pump air container 2,000 times to get gun ready for battle.





Disassembled sporting Contriner rifle shows how valve in center of air chamber (right) is released by rod in breech of gun.

A short revival in the use of the serviced rifles came in 1848 and 1849, at the time of the uprising of the Czechs and Hungarians against the Austrian crown. Francis-Joseph I, the last emperor of the Austro-Hungarian monarchy, then starting his 68-year reign at the age of 18, ordered the rifles out for use. They were never actually used in these two years, however, and never since.

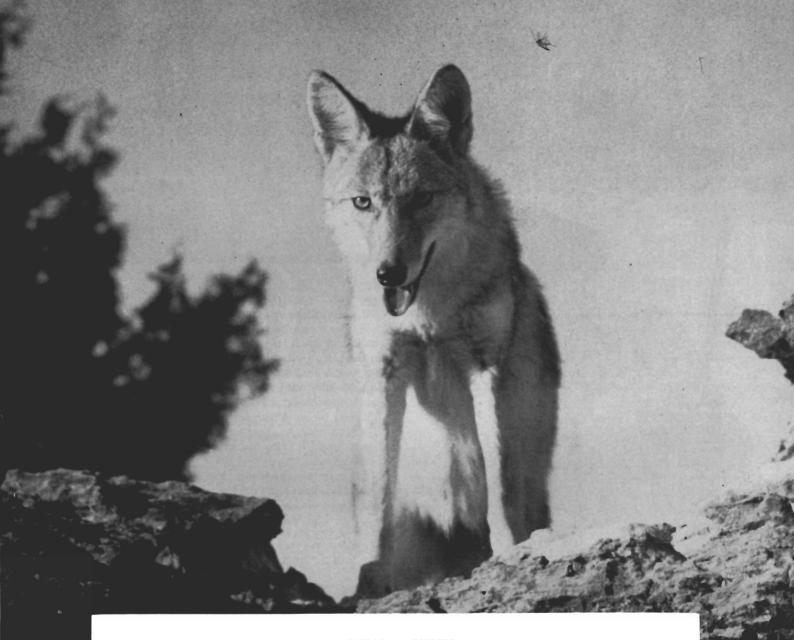
Actually the principle of the air gun was employed almost 2,000 years before Girardoni's gun appeared in battle. Around 250 BC. a resident of Alexandria, one

Ktesibios, constructed a heavy air-cylinder gun capable of throwing stones quite some distance in controlled directions. This air mortar was forgotten until 1560 AD, when a Nuremberg, Germany, gunsmith, Lobsinger, handed in his description of a new invention to the town council. Although the original "patent" script has been lost since then, history has proof that Lobsinger was first. This excludes the claim of others that the Nuremberg gunsmith Gester had originally found the principle of the air-powered gun around 1430. (Continued on page 50)

A. Air pump used with balloon-type air containers. B. Valve assembly and air pump fitted to balloon container. C. Space in which sweep of piston compresses final volume of air. D. Butt stock air chamber. E. Air container which is screwed to bottom of air rifle.

Make The COYOTE Come To You

HUNTERS CAN OUTSMART WILY VARMINTS OF SAGE BRUSH COUNTRY WITH CALL THAT BRINGS YOUEL HOUNDS OUT OF THE BUSHES



By WILLIAM CURTIS

As unquestioned villain of the Western prairie, the coyote has always been fair game for any and all hunters at any and all times. And yet despite years of playing target for thousands of sharpshooters, the wily varmint still multiplies (in litters up to ten at a time) faster than hunters can pick off the little wolves. For years the yodel dogs have simply outwitted

riflemen. Skulking stealthily out of sight, they can sneak along a 100-yard stretch of open ground with only three bushes half as big as a ten-gallon hat for cover. And nary a glance of them

But today woodsmen are beginning to get their measure by outsmarting one of the smartest critters in the sage brush country. I Ordinary commercial calls are effective in luring coyotes to within rifle shot out in open Western plains areas. Examining where .250/3000 pellet whacked coyote, hunter looks at carcass that will bring him state bounty. never believed it possible until Trapper Williams showed me how to make a coyote come to you. A big, rough character, he knew his coyotes and their vicious ways. Sitting on the rocky rim of a sloping canyon in the cold, grey morning mist, we were looking for mule deer but willing to settle for some shots at coyotes. Down in the valley we could hear coyotes yapping everywhere. While it sounded as if 40 of them were howling, it was probably no more than four. "Don't make a sound or a movement," cautioned Williams, "and I'll bring one of those yowling killers right in our lap." I thought my companion had a loose board in his attic, especially when he put the back of his hand up to his mouth and began sucking on it. He made a surprisingly loud





Good guns for coyote hunting are 30-06 Winchester, .250 Savage, .257 Remington, 30-40 Krag and .300 Savage.

squawk similar to a rabbit squealing in mortal distress. He watched the left side of the slope below us while I kept a very skeptical eye on the right side.

Suddenly, I spotted a coyote trotting straight towards us. His sharp ears were standing up as he paused, searching for a blue-plate, bunny special. My .257 Remington was propped up on a sage brush fork in front of me. I tried to ease the barrel towards my quarry in double slow motion. But those keen, yellow eyes detected danger the first move I made. That coyote reacted in exactly the same manner as most of these critters do. Without a second's pause, he swapped ends heading downhill, try-

ing to put as much distance as possible between him and us in as short a time as possible.

My first shot kicked up red gravel right at the white tip of that mountain coyote's tail. Few animals can run like the little prairie wolf. This one was fairly flying. Williams got his 30/06 in action and we were hitting everywhere but where we tried. Finally Mr. Coyote crossed a small ravine, well over 200 yards away, and hotfooted it around a knoll broadside to us. I made a lucky shot that drilled him smack through the boiler room.

We climbed down there to see how the 100-grain bullet pushed along at 2,900 feet per (Continued on page 43)

Coyote hunting from plane is unusual sport in Western country. Day's bag for ranch hunter totaled 11 coyotes.



PONTOON HUNTING BOOTS

IN VIENNA WOODS, HUNTERS SIMPLY 'WALK ACROSS' WATER TO TAKE COVER OR RETRIEVE DOWNED DUCKS

THE VIENNA WOODS in Austria have been famed for more than a century as the inspiration for some of the world's most beautiful music—Johann Strauss's "Tales of the Vienna Woods." In more recent years it has inspired one of the most unusual hunting gimmicks of the postwar era—pontoon hunting boots. Out after wild ducks in the picturesque woods, the hunter

equipped with the new boots does not have to wade through low water to get good cover; he simply "walks across" the water with the aid of inflated boots. No retriever or punt is needed to recover the ducks he shoots. He simply glides across the lake to pick up his Sunday dinner. A certain amount of good balance is needed to use the pontoon hunting boots but once this minor problem is solved, hunting becomes a genuine sport.



Boots are inflated after being assembled at water's edge.



Boots are fastened.



Deflated boots are carried in rucksack walking through woods.

Hunter walks onto water with his paddle.



Paddle helps hunter cross lake to take cover in reeds near shore.



Sighting ducks, hunter balances on boots and aims shotgun.





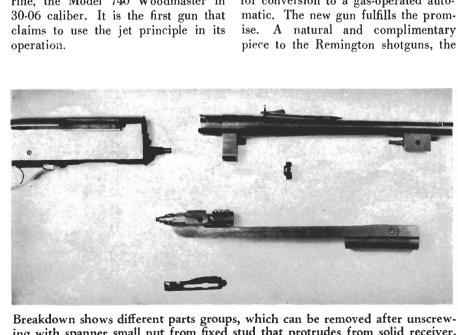
REMINGTON'S

Back in 1816 young Eli Remington of Ilion N rifle, because he did not like the ones he could buy. He hammered out the barrel and hiked to Utica to have it finished. Fitted with a lock and stock, he had a rifle of which he was proud ... and a gun that resulted in the founding of America's oldest arms manufacturing company, now the Remington Arms Company, a division of DuPont.

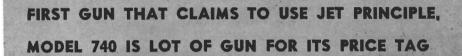
In the 140 years since young Eli made his own gun, the name of Remington has become known as a pioneer in the field. Today it still leads in the manufacture of weapons, its newest product being an automatic sporting rifle, the Model 740 Woodmaster in operation.

Remington is no stranger to the manufacture of automatic firearms. John Browning's long-recoil selfloader was made at Ilion since 1906, as the "Model 8". Later, slightly modified, the "Model 81" Woodsmaster, became a reliable and attractive rifle. Product of the Mormon genius, the old, timetried Woodsmaster had to give way to modern design. The new Woodsmaster, product of a team, rather than an individual, is the result.

The M740 was a natural outgrowth of Remington engineers' work on the slide action Model 760 introduced a year or so ago. Their rotating-bolt pump gun capable of handling high intensity ammunition was a "natural" for conversion to a gas-operated automatic. The new gun fulfills the promise. A natural and complimentary piece to the Remington shotguns, the



Jet nozzle and multi-lugged bolt ing with spanner small nut from fixed stud that protrudes from solid receiver.



By KINGSLEY GANNON

NEW JET RIFLE

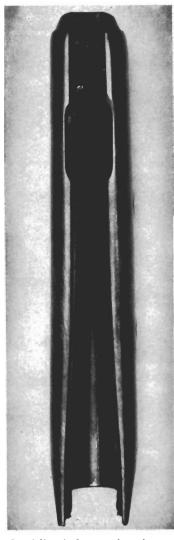
M740 design carries out the "matched set" streamlined look of the new Remington family.

Its gas operation is an old story in autoloading gun design. Browning's M1895 machine gun is a classic type. The in-line gas cylinder is more familiar, as in the Garand.

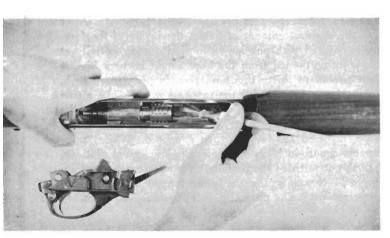
The new Remington differs in one way from the gas-cylinder designs of more conventional guns. The gas is tapped from the bore about 9 inches forward of the breech face. Passing through a right-angle tube, the gas blows through a pipe or nozzle into the inside of the action bar sleeve, a large weight attached by spotwelding to the bolt action bars. Weight of this sleeve or slide governs the speed of operation and briskness of opening—too light a slide would permit the bolt to open too quickly and possibly cause

the head of the fired cartridge to be torn off. Remington claims novelty in all this, under the term Power-Matic.

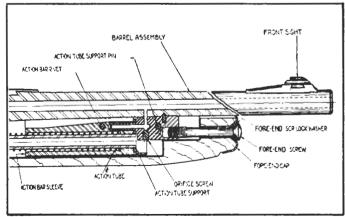
"Power-Matic," says Remington, "is a new term destined to soon become a definite part of the shooting vernacular and a new synonyn for soft recoil. A boon to the shooter who fancies a high-power rifle, Remington Power-Matic Action works on the same principle as a jet airplane to balance and soften recoil, and it does it with no loss of power! When the cartridge is fired in a Remington Model 740 Woodsmaster rifle, the gas thus generated moves rearward to operate the autoloading action, the non-recoiling barrel remains stationary, and the 'jet' effect forces the rifle forward. The net result is the softest recoil ever achieved in a lightweight high-power sporting rifle! Perhaps it's not so



Steel-lined fore-end reduces kick by absorbing gas force.



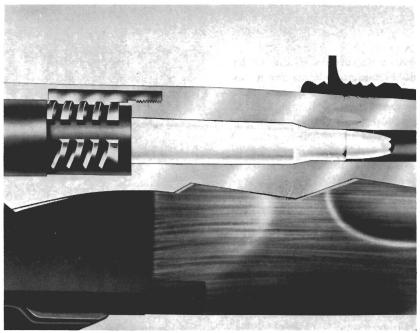
Gun is easily cleaned with brush and solvent. Trigger group can be cleaned as a package.



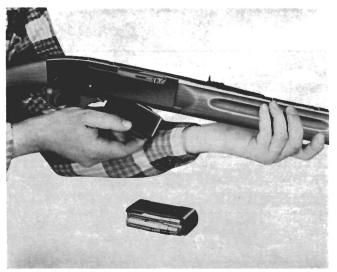
Detail of jet mechanism showing length of gas travel before action tube moves is shown in diagram.



Family resemblance of Woodsmaster rifle and Wingmaster shotgun are seen in closeup of breech of two guns.



Strong multiple-locking lugs of bolt, which shroud base of cartridge, give gun maximum strength as cutaway view shows.



Bolt is closed when gun is loaded from clip. Extra clips can be carried by hunter in field.

simple as it sounds, but it is so very effective."

A long look at the actual rifle will reveal what Remington had in mind.

There is, of course, no "jet" effect at all in the design of this gun. While every high school kid knows the principle of jet operation, it might be well to review it. A jet engine gains thrust by an expansion of gases against a surface of the engine which is attached to the machine—airplane or whatever. It is the old principle of Newton's third law of motion—to every action, there is an equal and opposite reaction. In a jet the hot gases are permitted to expand against an inside front surface, creating a thrust on that surface. Since the jet engine mechanically is just a tube closed at the front end, those gases which would expand rearwards are free to rush out into the air, and do no work.

The front and rear push is not equalized, and since there

is force pushing against the front inside of the tube, and nothing solid at the rear end of the system, the tube moves in the direction of the push—forward. Thrust is measured in pounds of matter in the ejected gases per time period.

This principle has been used somewhat to reduce recoil by conventional means. Cutts Compensators, for example, divert some of the gas rushing out of the gun muzzle against some forward surfaces of the Comp, all of which is attached to the gun barrel. Thus there is a momentary force pulling forward on the gun barrel which serves slightly to counteract recoil. In pendulum rigs, this decrease in recoil force has been measured as high as 40% reduction.

In the newest Remington M740, part of the secret lies in the manner of venting the escape of gas from the mechanism after the action slide has been set into motion. Conservative students of automatic arms design will be horrified to learn that the gas from the nozzle, instead of being carefully vented by suitable ports in the barrel or gas piston group, is per-

mitted to roam about freely inside the fore-end! After even the slightest amount of firing, the inside of the fore-end is covered with powder fouling! Pressure initially at this point as tapped from the bore would be very high—some twenty to thirty thousand pounds per square inch.

All this gas loose inside the fore-end would make a rifle hotter than most people would like to hold. But the Remington people are pretty clever. First off, the actual forces involved are far less than supposed. While "pressure-per-square-inch" is convenient to use in calculations, the gas port area of the Remington is very much less than one inch. Secondly, the gas is not tapped directly to impinge against a gas piston, as in (Continued on page 44)

CARTRIDGES

QUIPS QUOTES & QUERIES

By STUART MILLER

Cartridge Collecting A New Hobby

ONE of the best features about cartridge collecting is that even now the beginning collector is getting in near the ground floor. Gun collecting has been going on for well over a hundred years, and countless books have been written on the hobby. However, metallic cartridges really didn't get under way until the 1870s, and it was a mighty long time after that before any serious cartridge collecting got under way.

It was not until Logan's famous work, "Cartridges," came out in 1948, that there was any book that was devoted to cartridges as collector's items. True, Johnson and Haven's "Ammunition" published in 1943 had a nice lot of data of interest to collectors, but this was more of a background on cartridge deevlopment. The main emphasis of the book is on military ammunition and its problems. Since then there have been but few books on cartridges, the best being the two White and Munhall volumes on cartridge identification. The fact is that there really isn't too much known and written on the subject. It is the many unanswered questions that makes the hobby so interesting.

For example: I have known the Martin Primed cartridges since I started collecting. I always considered these—in the 50-70, the 50 Remington Pistol, and the 44 Army Revolver calibers—strictly a military cartridge made only at Frankford Arsenal at Philadelphia, and the National Armory at Springfield, Mass., and there for but a short time. Apparently others thought the same since there was nothing said to the contrary.

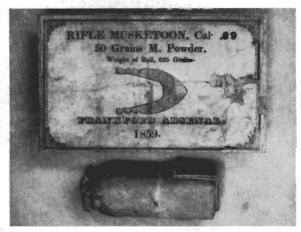
So I was much surprised and pleased when I picked up a part box of 50-70s with the original label saying "20 Martin's Patent Centre-Primed Cartridges for Remington 50 Cal. Rifle Manufactured by E. Remington & Sons, Ilion, N.Y.—Patented March 23d, 1869." The cartridges have no headstamp and seem identical with the arsenal manufactured rounds. That leaves us with a few more questions: did the Army or Remington have them first, and did any other commercial companies make any Martin Primed cartridges?

Earliest Army Cartridge Packets

It is very seldom that any labeled packets of combustible rifle or musket cartridges are found. The Army was usually content to stencil the cartridge identification on the end of the wooden packing case, and didn't bother to label the packets. Both the combustible cartridges and the paper packets were rather fragile, and one or the other would usually break down after much handling. Add to this the fact that the combustibles were prone to deteriorate, and were usually repackaged or salvaged after a number of years, and you see why these labeled packets are nice items.

The earliest dated army cartridge packets that I have seen were intended for use in the Model 1847 Musketoons that were issued to Cavalry, Artillery, and Sappers (Engineers). Because they were intended for use in lighter weight weapons, there is 20 grains less musket powder, and the bullet weighs 105 grains less than the comparative

musket cartridge. While it is not shown in the cross section drawing in the label, there is also a short tapering wooden plug that fitted into the cavity of the bullet, extending slightly to the rear. The force of the explosion drove this



plug forward and expanded the bullet so that it would take the riflings.

These musketoons were probably the last model of the 69 caliber weapons used by the army. The Plymouth or Whitneyville Model 1861 cal. 69 rifles were for the Navy.

Union Cap Center Fire

I was surprised to find out that the old Union Cap and Chemical Co. of East Alton Illinois put out several calibers of center fire revolver and rifle cartridges. I had seen their 22 and 32 caliber rim fires with the Gothic Cross head-stamp at various times. I was really pleased to land a set of the 32 S&W, 38 S&W, 38-40 and 44-40 c.f. cartridges for my collection. These are all marked U. C. C. Co. and caliber. So, of course, I am now wondering whether the company made any other calibers. The company was organized in December of 1900 and turned out a lot of primers, especially for the then new Western Cartridge Company, also of East Alton. Their cartridge manufacture seems to have been rather a side line and on a limited scale. Western Cartridge Company finally bought them out in April of 1914.

Question Marks

"Here is a cartridge that I haven't figured out. It is a 32 long rim fire blank, I guess. It has a brass case with the "U" headstamp. It has a straight green plastic projectile that extends \(^{1}/_{4}\)" beyond the case mouth. This is in the form of a straight sided cup, hollow back to even with the mouth of the case. What is it, some special purpose blank, or what?" F.H., Chicago.

What you have there is one of the loads for the Remington Model 450 Stud Driver. This is a tool that shoots sharp pointed steel studs into wood, concrete, or steel. These studs have either the regular head, on the order of a nail, or else have threaded heads. The heads of these studs are slipped into the cup in the projectile for loading. These blanks come with brown, green, (Continued on page 48)



In gun duel with bandits, policeman Arthur Olson used target training to good avail to kill two yeggs.

The Man Who Saves Cops'Lives

OFFICER DIRCKS FOUND CHEAPER WAY TO RELOAD AMMUNITION, GAVE POLICE MORE TIME ON TARGET RANGE AND BETTER CHANCE IN BANDIT GUN DUELS

By STERLING MARCHER

Too MANY COPS were getting killed. In Los Angeles in the late 20's, "Bank Robber Slays Two Cops" was a common headline. In those years Los Angeles policemen were literally being slaughtered by criminals. For every four criminals killed, one policer met death. In cops-and-robbers gun duels, police officers usually came out second best—if at all.

The people of Los Angeles did not like it. The policemen's widows did not like it. And mostly the cops did not like it.

L.A. was getting a reputation of being a wide-open town. Police were becoming targets for every two-bit hoodlum with a gun. Cops found out that there is no such thing as a "born" pistol shot; those who thought they were, became dead shots soon enough.

Police officials knew the answer: more time on the pistol range. But cops were hesitant about using the range regularly. The department had a good range in the Elysian Park hills north of the downtown section but there was no money available for



Joseph Dircks checks part of his reloader with micrometer.



Police cadets are required to practice daily on range, use ammunition reloaded in Dircks machine at low price. Dircks yearly sells 2,000,000 rounds of .38 special ammunition loaded on his machines to law enforcement agencies.

reloading equipment. Forced to use expensive factory-loaded shells, officers simply could not afford to practice much. Thinking of their hard-earned nickels and dimes rolling out of their gun barrels in smoke, patrolmen were reluctant about practice.

But bad aim not only was hazardous in their daily work but also expensive in another way: police who could not score a minimum of 60 slow fire and 40 rapid fire were docked a day's pay by the department. The policeman's lot was indeed not a happy one.

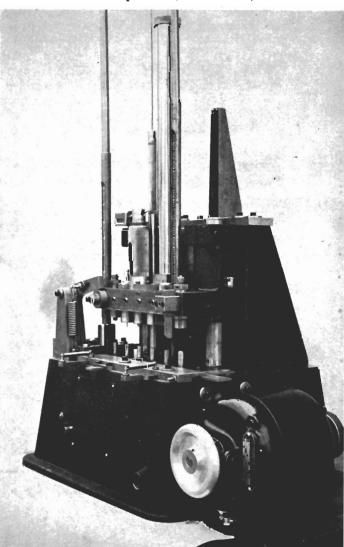
Finally one cop decided to do something about it, by finding a cheap way to reload the thousands of fired brass cases on the police range. He was Officer Joseph O. Dircks, who designed an automatic reloading machine that has since become standard equipment for any organization that uses thousands of rounds of ammunition regularly. For police departments, large gun clubs and bank security forces, there is no more practiced nor more economical method of handling ammunition reloading.

The Dircks reloader, with a price tag of \$1500, is fully automatic and performs six continuous and consecutive operations in reloading an average of 3,000 rounds per hour.

Dircks started his quest for better reloading equipment by experimenting with hand reloading. With money out of his own pocket, he purchased a ten-cavity wad cutter mould and some second-hand lubing and sizing tools. Turning out inexpensive 38 Special loads, Dircks enabled Los Angeles police to practice more and fatalities in gun battles immediately began to drop.

With that incentive, Dircks moved ahead towards the development of an electrically-driven reloading machine. With the help of a friend, hydraulic engineer J. D. Buchanan, Dircks turned out his first model which produced 1,200 loads per hour. Slow as it was, the new machine was a vast improvement over former hand-loading techniques and met the growing needs of the Los Angeles police force of 2,100 men.

The basic operations of the reloader start with checking the base of the case for primer size, whether large or small. The case is cleaned inside and out. Second, the Dircks reloading machine is fully automatic in its six continuous operations, sells for \$1500.





Lubing and sizing machine is operated by honor prisoner. All excess grease is removed automatically.

case is sized and decapped simultaneously. Third, it is primed. In the next step, the powder charge is thrown in and the end of the case neck reamed to aid bullet scating. The last step is crimping the bullet in the case.

When Dircks retired in 1943 after 20 years of service, he decided to work at refining the design of his machine to step up production. Working alone in a rented shop, he upped the capacity of his reloader to 3,000 rounds per hour. It was designed to stop immediately if any one of its six operations malfunctioned, such as foreign materials being in a case or a bullet failing to seat correctly.

The high-capacity machine was immediately a success with many police departments. Los Angeles, Long Beach, San Diego, New Orleans, and the Los Angeles County Sheriff's Department all use his machines. Recently the Japanese government purchased a battery of ten loading and ten lube and sizing machines for the national police.

To clean shells on a volume basis, Dircks built an electric shell shaker. It cleans the cases of dirt and other foreign matter, and sorts out Magnum shells from regular 38 Special cases, as well as sorting them to weed out all the off-size primers. The empty cases are put into a hopper at the top of the machine, and they roll slowly out of the hopper and onto a moving belt.

Then they roll off the belt and start dropping between 20 rows of inclined rails which slant away from the belt. The cases drop between the rails and are held there by the heads, the mouth of the case pointing downward. Any material inside thus drops out onto the floor. Each row has a capacity of 75 cases. The machine operator inspects each row for faulty cases and lets the good ones drop mouth first into a shell loading tube. The tube is then inverted and placed into the top of the loading machine.

For bullet sizing and lubricating, Dircks has produced a special machine which is adapted for his reloading machine. The lube-sizer is fed by vertical tubes about four feet long, each containing about 80 bullets. With plenty of "headroom," longer tubes could be used.

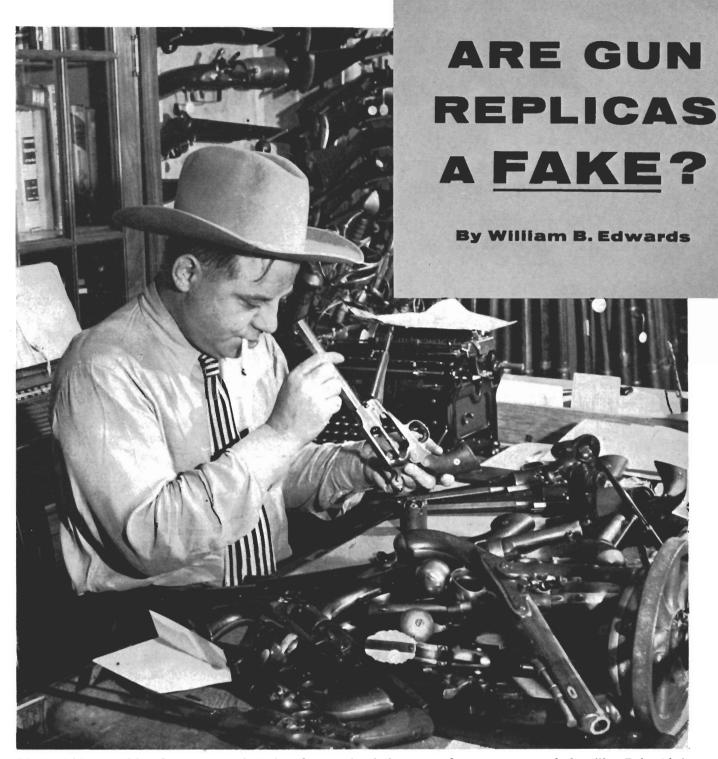
After the bullets are greased, they are sent on into another catch-tube under the machine. This prevents additional handling of the bullets which might permit grit, abrasive to gun barrels, to be picked up on the soft lubricant. It is of course more convenient to carry them this way. The grease reservoir holds enough lubricant for 6,000 three-ring bullets. As the bullets move from one tube to the other, and after the greasing operation is completed, a shut-off valve automatically cuts off the grease until the next bullet is (Continued on page 50)

Shell shaker removes all foreign matter from empty cases. Shaker can clean 1500 cases in matter of minutes.



Reloader is operated by Los Angeles Deputy Sheriff Jim Montgomery. Office reloads about 85,000 rounds monthly.





Distinguishing a fake from an original is often a headache even for a top gun dealer like Bob Abels.

WHEN YOU BUY A 'RARE'
GUN AT BARGAIN PRICES,
DO YOU KNOW IF IT IS
A REPLICA OR A FAKE?

Is THERE a difference between gun replicas and gun fakes? Since collecting became a popular vogue in the postwar years, that controversial question has been heatedly debated by gun bugs. As rare guns become more and more scarce, the polemics on both sides have become more and more frenzied.

There are those who insist that replicas, even though presented as copies of originals, eventually become outright fakes because of some unscrupulous gun dealers who try to peddle them as originals. On the other hand champions of replicas maintain that accurate duplicates cultivate the lore and legend of famous old guns. The



pro-replica crowd claim that those who shout "fake" are gun snobs, people who have cornered the market and want to cash in on the newcomers to the hobby.

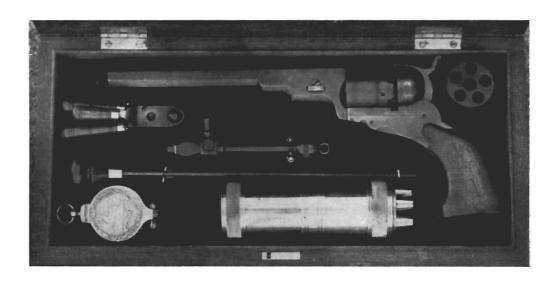
The argument can go on ad infinitum. What are the facts about replicas—whether in guns, or any other field? Actually in any hobby of collecting ancient items, replicas have always been produced. For instance, furniture is made today according to classic patterns and designs of good taste such as Sheraton and Hepplewhite are legitimately imitated. In books, replicas of facsimile editions are readily

accepted. But in stamps, replicas are considered an outright fraud.

Whether the same applies to guns is a question mark. Consider the arguments of Colt authority John S. duMont of Greenfield, Mass., who bluntly states: "In my estimation, any antique gun replica is made, or will become, a piece that will eventually defraud someone.

"Why is a replica made anyway?" duMont asks rhetorically. "The stock answer is that it is made because the person making it cannot afford the genuine piece, and will

"Texas" Colt replica in case complete with tools for loading is made to sell to collectors who cannot afford price of a genuine, original gun.





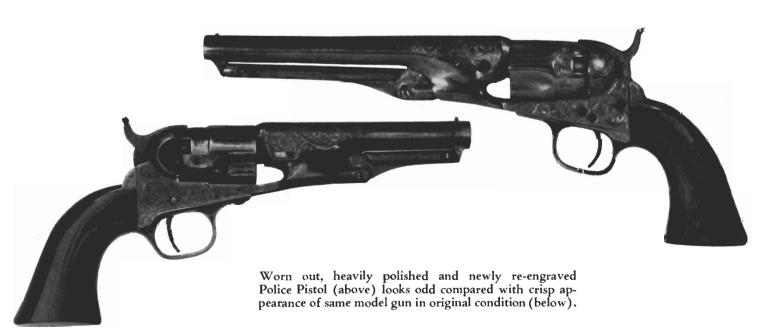
Original cased Walker pistol recently sold to Larry Sheerin of Texas for \$8,000 rates as choice collector prize, but modern replicas may hurt values. Philadelphia dealer Raymond Riling bought gun in Denmark.

accept the replica in its stead. Frankly, I don't buy this. A person who makes a replica makes it to defraud his own ego. It eventually becomes in his mind 'just as good as the original' by some process of mental osmosis."

Considering the man who manufactures replicas, duMont is just as outspoken in questioning duplicates: "While the man who manufactures replica guns for the market may have motives 'pure as the driven snow,' the market may have entirely the opposite. We all know of cases where the replica has been turned into a 'genuine' piece almost

overnight. The next thing some undeserving individual is out a lot of money. This process of replicas has run the gamut of eventual fraud from stamps to the skull of the Piltdown man."

DuMont feels that the practice of making replicas is a bigger threat to newcomers to the gun-collecting hobby than the oldtimers. "My reasons for opposing replicas are to protect the interest of gun collectors, the newer of whom can be scared, as well as defrauded, right out of the hobby by investing in what might have (Continued on page 46)





Joe Steinlauf, the Cicero gun collector who has never fired a gun, holds his "gangster bike" with 12 pistols and rifles mounted on frame.

ARSENAL on a BICYCLE

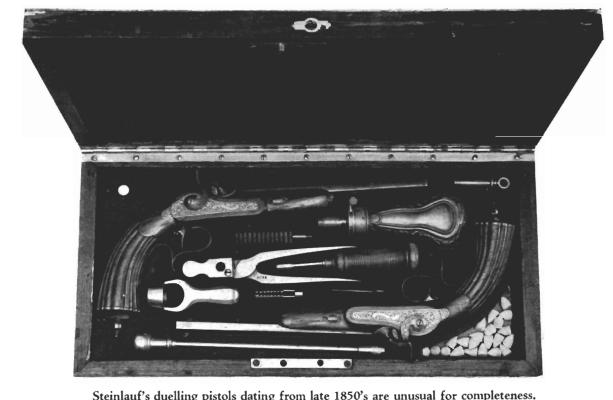
GUN COLLECTOR BUILT 'GANGSTER BIKE' AS PUBLICITY GAG DURING DAYS WHEN CAPONE MADE CICERO HIS HEADQUARTERS

By GEORGE KUFRIN

THE CHICAGO SUBURB of Cicero is probably best known as the onetime headquarters of "Scarface" Al Capone, whose blazing guns were identified with the roaring 20's. "Scarface" is gone and Cicero is trying to live down its reputation but out of those gangster days one relic remains—an arsenal on a bicycle built by gun collector Joe Steinlauf, who lives on the suburb's outskirts. Joe built the bike with 12 rifles and pistols mounted on the main parts as a publicity gag for his tire and cycle shop. It became a startling sight that dramatized Cicero's gangster reputation.

The arsenal on wheels is now part of his gun collection started as a youth shortly after he arrived from Austria in 1910. The "gun bug" bit him when his father sent him down to the basement for some coal. In the bin under the coal he found a battered Frontier Colt, still loaded. Starting in business in 1922, his gun collection grew with his tire sales. His main prize is a rusty 1860 Army Colt taken from the Gettysburg battlefield. Once he traded a set of seatcovers for a Colt revolving rifle worth over \$200.

Although Joe owns many guns, he has never shot one! He says he is too busy selling tires.



Steinlauf's duelling pistols dating from late 1850's are unusual for completeness.

Winchester brass-framed Model 1866 is extra engraved, deluxe quality rifle of model liked by Sitting Bull.

Steinlauf's tire and cycle shop makes fantastic contrast with inside-lighted showcases containing his collection of 300 guns.







Off-the-hip shooting position used with Schuetzen rifles is demonstrated by wellknown American shooter, John T. Amber.

THE
SHARP-SHOOTING
SCHUETZEN

BEAUTIFULLY MADE, FINELY FINISHED, EUROPEAN SOUVENIR SCHUETZENS ARE ACCURATE WITH EASILY-MADE AMMO

By ROBERT J. KINDLEY

A mong the estimated 750,000 foreign guns brought home by GIs at the end of World War II, none was more unusual and seemingly more useless than the German Schuetzen rifle. Designed strictly for target shooting, the heavy-barrelled, well-balanced, single-shot rifle was brought home by many servicemen as a novelty to show to hunter friends. But the several thousand Schuetzen rifles turned out to be more than an oddity for those fortunate enough to own them.

Actually they are among the most accurate guns manufactured in the world for use on a range. Equipped with superb set-triggers, excellent iron sights and heavy carved stocks with double-pronged buttplates, most of them were custom-built to individual specifications for use in the German "Schuetzenfests" or shooting matches. These were shot at 100, 200 and 300 meters from the offhand position. At 200 meters, a good man with a Schuetzen rifle could keep all his shots in a saucer-size bullseye.

To the rifleman, who likes to stand on his "hind legs" and shoot, who still recalls the traditional accuracy of fine old American single-shots like the Ballard, Winchester, Remington-Hepburn, Sharps-Borschardt and Stevens, the Scheutzen rifle is a fine weapon indeed. And it comes with a price tag that does not require a second mortgage. A good bore Scheutzen with tight action and a plain finished receiver and stock can be purchased for as little as \$35. Those ornately-engraved receivers and hand-carved stocks will cost considerably more. But the plain Schuetzen rifle with a good bore and at a much lower cost will be just as accurate as the fancy one.

In selecting a Schuetzen rifle, pay particular attention to the condition of the bore. Examine it carefully for pitting or rust. Make sure the throat shows no sign of erosion and that the lands are sharp and clean to insure gilt edge accuracy. The outside appearance of the rifle can always be improved by rebluing or by refinishing the stock but nothing short of re-

boring to another caliber can improve the accuracy of a pitted, shot-out barrel.

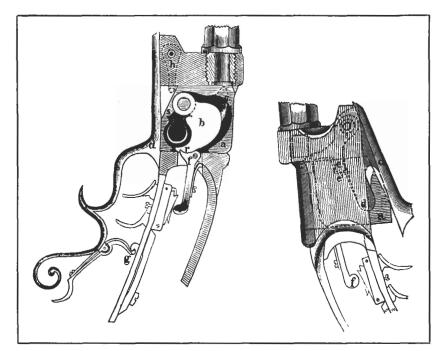
The majority of German Schuetzen rifles were chambered for a short, slightly bottle-necked cartridge designated as the 8.15x46R. A few, however, were chambered for the 7.7x46R and for the 8x48R. It is important, therefore, to determine the caliber of your Schuetzen before attempting to obtain ammunition for it.

It was standard practice among German gunsmiths to stamp the caliber of the rifle on the barrel. The most common place was under the forearm and removal of this piece will usually disclose the caliber stamped in the barrel. If not, a sulphur cast of the chamber must be made and carefully measured with a micrometer to determine the correct cartridge size.

With the German Schuetzen as with all foreign weapons, the most critical problem is that of obtaining ammunition. Fortunately the 3.15x46R, unlike many foreign cartridges, is compatible with two domestic calibers—the 32-40 and the 32 Special. The

32-40 case has much the same dimensions as the 8.15x46R except for overall length, rim thickness, and head diameter. The bore size of both these calibers will fall between .316" and .323" and rechambering the German Schuetzen rifle to the 32-40 is entirely satisfactory.

The 8.15x46R case is slightly bottle-necked and in re-



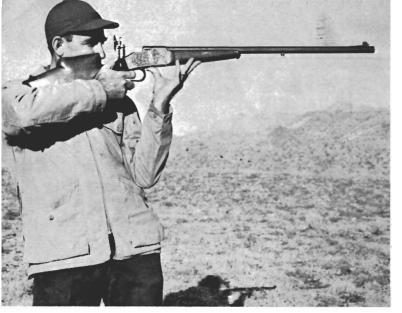
Cross-section of Schuetzen shows short hammer fall. Hammer (b) is held at sear notch (r) by lever (f) which is struck by rear limb of double-set trigger to fire. Breech block (a) is pulled down by movement of lever finger (d). Extractor is part e.

chambering the 32-40 finishing reamer may not entirely clean up the chamber. If not, a slight shoulder will appear on the 32-40 cases fired in such a chamber. This is harmless and will not affect the accuracy of the rifle. However, should this be undesirable, rechambering to the 32 Special will entirely clean up the chamber.



Aydt rifle (top) and Martini (below) have typical Schuetzen stocks with pronged buttplates. Adjustable rear sight is often missing from souvenirs, and American 20X scopes may be used for 200-yard "fingertip" shooting. They clarify bullseye but also demand the acme of offhand control to score.



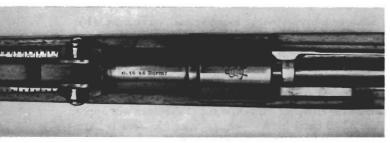


Finger tips support Schuetzen without palm rest. Author Kindley shows finger tip and hip position.

A word of caution is necessary if you rechamber your Schuetzen to either of these calibers. Do not use factory loads with jacketed bullets. The German Schuetzen barrel is designed for soft, lubricated lead bullets driven at a velocity of 1400 to 1500 feet per second and continued use of jacketed bullets at higher velocities will rapidly wear out the barrel.

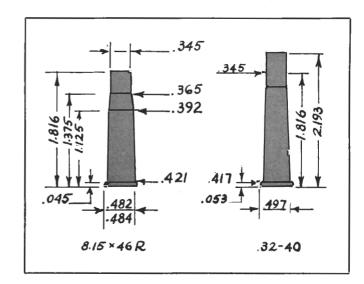
If you prefer to use your Schuetzen in its original caliber, ammunition is available from three sources. First of all, some dealers are importing the 8.15x46R in foreign loadings. These are quite expensive, however, usually costing 25 to 30 cents each. Then, too, these foreign cases all use Berdan primers which makes reloading a difficult and laborious task.

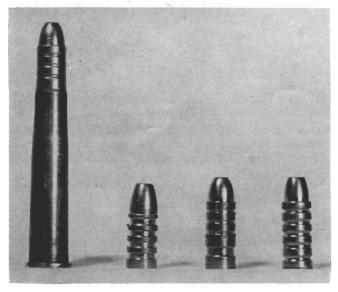
The second source is the custom handloader, many of whom can furnish the 8.15x46R in reformed domestic cases. These, too, are quite expensive but the initial high cost is offset by the fact that these cases can be reloaded using available components. The third source is that of forming your own cases for the (Continued on page 45)



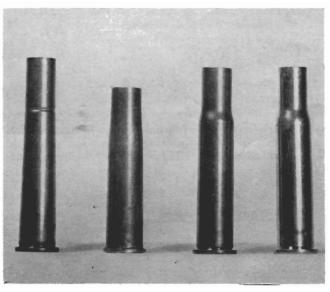
For military training under Versailles Treaty, many Gew. '98 rifles were rebarreled to 8.15 x 46.

Dimensions of 32-40 indicate it to be the best American brass for reforming to 8.15 x 46. While shoulder of 8.15 is wider, 32-40 cases, cut down, will easily fire form without cracking on body.





Best for Schuetzen 8.15 round are Ideal #319247 165 gr. and #319273 183 gr. bullets, with Pederson 185 gr. 32-40.



Best for Schuetzen reforming are 32-40(L), 8.15 x 46R Czech, 32 Winchester Special and 30-30 cases.



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folding handle. Reel separately \$21.50.

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The Mitchell "Cap" Full Ball Spinning Reel and the H-1 "Admiral DeLuxe" Registered Red (see rod description above) is a balanced combination of thoroughly dependable quality at a really \$16.95.

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SPINSTER MARK V OUTFIT You get the all new 1955 Afrex "Spinster Mark V" Spining Reel (separately \$12,50) plus your choice of any H.1 "Admiral" Registered Rod described above, with Rod Cases.

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(as shown in inset), 7 ft. usts from 61/2 to 71/2 ft.



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separately \$25,00, Complete
Outfit, Certified
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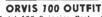






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Pflueger SUPREME Casting

\$35.88



I-J's Flash Control

The average "expert" shooter, when the name of "Iver Johnson" is mentioned, sniffs and makes some remark telling how little he thinks of the guns. You can put that hoy down in your book as a dope. I-J, established in 1871, is our third oldest pistol maker and one of six firms which have survived from the hundreds active before 1900.

The I-J pistols today have undergone some drastic revisions, although they are still in the lower price ranges. Most significant innovation is the "Flash Control Cylinder." The front of all their revolver cylinders are "hooded" to cover the end of the barrel during firing. Every target shooter in the line-up knows what that means. Plenty of fellows have pieces of side-flash lead and powder in their necks from a shooting buddy's pistol opposite their faces. Side flash can be felt unpleasantly many feet away, and guns costing twice as much as the 1-J are not immune from this fault.

Careful chamfering of the forcing cone will do much to reduce side flash, but lead still may be shaved. The I-J guns are, it is true, somewhat less than masterpieces of precision. Expensive hand fitting—for which no shooter would willingly pay—might aid chamber-barrel alignment to cut this flash. But the simple hooded front cylinder entirely prevents any flash directly to the side of the gun.

1-J says "patent pending" on this one. It is possible that the early designs of Collier, the Civil War Savage, and Russian Nagant revolvers might interfere, although the intent



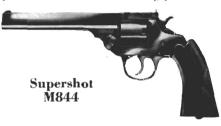
of the hooding part of the cylinders on these guns was not to protect from side flash. Whether patents are granted or not, I-J's new flash control cylinder is a significant step in arms design.

Tops in the 1-J line is the Armswor:h M855. Designed for timed fire, the revolver is single action only, with a wide block trigger and an adjustable rest for the third finger behind the guard. Caliber is 22LR, as are all 1-J revolvers, and the cylinders on all models are counterbored at the rear to prevent high-speed cartridge heads from bursting. Cylinder is 8 shot.

A new front sight is screw adjustable for elevation, Patridge type, while the rear sight (which is mounted on the frame catch) is adjustable for windage. Grip is full-sized, one piece walnut, and checkered for firm holding. Top of 6-inch barrel is non-glare

finish, and the rest of the gun is full blue. Length over all is 10\% inches, while the weight is 30 ounces. The I-J target revolvers are considered to be the best of the lower priced types. Price is \$46.20.

The I-J Supershot M844 is similar to the earlier Supershot Sealed Eight, Iver Johnson's target quality double-action gun. While it has the rebounding hammer, similar to the same feature on the Arnisworth, the lockwork is the old reliable I-J "hammer the hammer" pattern. In this the frame firing pin is held



by the creep spring back from the cartridges, and yet the hammer is so cut that it cannot strike the pin end. When the trigger is pulled, the lifter, upon releasing from the raised hammer, interposes a swinging block between the hammer and pin end. The hammer blow is transferred through the block to the pin, firing the cartridge. Upon releasing the trigger, in double action firing, the block is pulled down and the pin springs back. With parts at rest, the gun hammer can be safely struck with a claw hammer, but the gun will not fire. It is entirely safe. Barrel lengths are 6 inches or 41/2 inches, and weights 29 oz. and 27 oz., respectively. The finger rest is available at extra cost-otherwise specifications are much the same as the Armsworth, with recessed head and flash centrol cylinder. Price, full blue, is \$42.20.

A 'First' Revolver

OFFERING many of the new advantages present in the Armsworth and the Supershot, the new I-J Target M55 is right for that knockabout camp gun or "first" revolver. It has the solid frame and pull-out center pin construction of earlier 1-J guns, but with an improved pin push-catch like the Colt Single Action. Lockwork is DA, but without the "hanmer the hammer" device. Sights are



fixed, front ramp and frame notch, but otherwise it compares with the more expensive guns. The flash control cylinder with recessed head is used, and also the adjustable coil-spring for the hammer, and large onepiece walnut grip. With 6 inch or 4 inch barrel, (26 oz. or 24 oz.), 8 shot, full blued finish, the Target is a gun to consider at \$26.10.

The new Cadet M55s costs the same as the Target, \$26.10, hut is much smaller. This price reflects the importance of lahor costs in today's manufacturing. The number of operations to make the Target is hardly more than those to make the tiny Cadet, and metals cost is small—the Cadet weighing only 20 oz. The four to six onnce difference in carbon steel does not make any real difference in price. The Cadet has a 2½ inch barrel, 8 shot flash control cylinder, and is only 6%



inches long. Grips are small, two-piece walnut, but the lock is the same as the Target, with music wire coil springs which are practically unbreakable. The Cadet will fit almost any pocket, and can go anywhere. In 22LR caliber only, the Cadet avoids the stigma attached to larger caliber cheap revolvers which are "obviously for killing only," yet if needed for defense, it can be loaded with Hi-Speed hollow point 22's and packs a real punch.

Iver Johnson once made a solid frame, side swing, simultaneous ejecting revolver of a unique design. It was aimed for competition with the most expensive guns made. These new designs introduced by I-J today make one wonder what they might come up with if price were no objection? It ought to be good.

A standard top-lever single barreled shotgun, and a single shot boy's rifle, are also made by I-J. The shotgun is \$23.50.

Ideal for a boy's first rifle, or a "kitchen corner" gun is the I-J Self-Cocking M2x, a single shot 22 rifle selling at only \$15.40. The safety is different from any other, and prevents the cocked gun from firing.

New Hunting Scope

THE ALL-AMERICAN. Lyman's new hunting scope, is now available in 2½ power. The 4x, introduced last year, was the popular first of the line. 2½x scopes give a wider field of view than those of higher power and prove more suitable in woods hunting or where



fast motion with the rifle is necessary. Lyman claims this All-American has the widest field of view of any 2½x scope. All lense surfaces are coated and color-corrected, "cushion mounted" to be recoil proof. Ocular lens is adjustable, and for mounting the I" tube the eyepiece cell can be easily removed and replaced to original position. Windage and elevation adjustments are internal, I' positive clicks. Scope tubes may be had either all steel or light alloy. Price is \$45.50.

MAKE THE COYOTE COME TO YOU

(Continued from page 23)

second performed. The soft nose entered just behind the shoulder at a slight angle. It hit the bone on the opposite side blowing the top of the shoulder away completely. Plenty good enough!

Since that day I've enjoyed many an exciting hunt with Trapper Williams squealing the little wolves up. Occasionally we picked off foxes or bobcats. I tried my own luck at imitating a rabbit's squall on the back of my hand, but without much success. However, a number of calls are on the market today that emit cries that are almost a dead ringer for William's squeal. If you get in an area inhabited by coyotes, without them knowing it, these commercial calls are just as effective, and anyone can blow one.

With these calls, the year round becomes open season. Certain it is that that there's no better target than coyote for getting acquainted with your rifle.

Finding a hunting spot is seldom difficult. Most sheepmen will welcome the varmint hunter with open arms. I know a number of sheepmen put out of business by these killers. A single coyote will sometimes kill 100 lambs in one season if unchecked.

I've known sheepberders who will swear a coyote knows just how far he can be killed with the sheephand's old .30/30. After you've chased these animals a while, you won't even snicker at the herder's cussing.

There are many ways to hunt this predator besides calling him up. The open, sage brush lands of the west and southwest and certain Pacific Coast sections have the largest populations. But, no matter where you hunt, to simply park your car and hike out looking for one is disheartening. They possess such good smellers and sharp eyes that a hunter's chances of driving one to another hunter, deer fashion, are about as slim as finding a Marilyn Monroe calendar in a Sunday School.

The most popular hunting method is to tour the country roads just about at dawn. Stop on each ridge and listen until you hear some yapping. Then proceed to stalk the varmints. Move slowly, watching at all times for a splotch of tawny color amid the sage. Good binoculars will prove a great aid. If you manage to stack up one coyote for every half-dozen stalks you make, you're doing mighty well.

My partner and I do a lot of coyote hunting out of a jeep. This vehicle will get by on even a cowpath. It will plough over sage brush higher than the hood. Cowhands often hunt horseback.

Most shots at coyotes are long range attempts. A 200 or 300 or even 400-yard poke is not unusual. This canine is not as big as he looks. They usually go between 15 and 30 pounds, and one has to have a bellyful of venison or jackrabbit to top 30 pounds. It would seem that the souped-up .22's and other wildcats would be the ticket for such shooting. However, coyote country is often windy country and wind-sensitive

bullets spit out by the Swifts, .222's and .22/.250's will occasionally bend off the target on breezy days. Of course, they'll all kill coyotes. I have stopped many with an old .22 rimfire singleshot, but that doesn't mean the rimfires are good predator guns. If you miss a vital spot (and don't we all), a cripple will be left in the desert.

The .250/3000 pellets traveling over 3,000 feet per second with the 87-grain bullet makes it an ideal coyote load. The shooter does not have to worry too much about brush deflection. If you can see the wily, desert wolf at all there are apt not to be many bushes in the way. In heavy cover, it's an accident if you see one.

Because of the small target they offer, and the great distance from which a shot is usually fired, a scope-mounted job is a great help. A 4X scope is not too much power for coyotes. I have a friend equipped with a Weaver K-6 on his .270. With even the standard 130-grain chunks of lead, he's plain poison to a coyote. Maybe too much scope for timber hunting, but in the open it is really deluxe okay.

One chilly morning this friend and I were bouncing along some field roads in the open, rolling foothills of Central California. I was herding the jeep along the edge of a big ineadow. The meadow was just beginning to green up, but numerous clumps of grayishtan bunchgrass dotted the green. Jackrabbits were hopping about everywhere. We would stop occasionally to glars the country for late prowling coyotes.

I pointed out a set of fresh tracks in a sandy ravine. "They were here during the night, but we may be a little late to find 'em out in the open."

We started rolling slowly forward again, when two bunchgrass clumps suddenly sprouted pointed ears as they came to life in high gear. My companion scrambled out of the jeep, but just as he rested the gun barrel across the jeep's hood, the coyotes dropped out of sight in a deep wash.

"They'll come out in a minute," I predicted. "When coyotes sense danger they keep moving.'

"I'll get 'em both," confidently grinned my partner.

I bet the biggest steak in town that he wouldn't. The yodel dogs came out of the wash close to 300 yards away. With long, flowing brushes and thick fur, they looked like bigger targets than they really were. The leader never knew what kind of 130-grain death bit him. He just collapsed. The second survived three shots-one which practically shaved its whiskers. Then a lucky head shot flattened him.

Between bites of T-bone that night, I would have bet the .270 was the best coyote rifle agoing. With my partner behind it, that is. However, any good deer rifle from .30 calibre down, with flat trajectory. will fill the bill. In fact, you'll have fun plinking at covotes no matter what kind of gun you use.



KLEIN'S Sporting Goods, 1 227 W. Washington \$t. Dept. G-3, Chicago 6, III.



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REMINGTON'S NEW 'JET' RIFLE

(Continued from page 28)

the Garand, but is led out a "pipeline" of a couple of inches length, finally being permitted to expand against the inside of the action bar slide. This sets the autoloading cycle into motion, blowing back the action bar slide which is connected to the breech bolt and bolt carrier. The bolt carrier turns the bolt, and unlocks the multiple front lugs from the rear of the barrel extension. Inertia retracts the bolt and compresses the action springs and cocks.

The "Power-Matic" gimmick seems to be

The "Power-Matic" gimmick seems to be the inside surface of the wooden fore-end. This is lined with a single steel sheet. When the fore-end is attached by means of the single screw to the barrel gas lug, the steel sheet is solidly united with the gun. Inside contours of the fore-end lining are shaped so that a gas thrust against them would certainly act to reduce recoil thrust, and also control somewhat the upward whip of the muzzle. This might in this "jet age" be likened to the jet principle, though of course it really is not.

Gas inside the fore-end quickly becomes chilled, condensed, and lowered in pressure as it loses heat. Only moderate in force initially, the gas when it blows upwards out of the two ports alongside of the barrel possesses very little energy. It is enough to blow off a piece of target paper held around the fore-end and barrel-but not enough to blow any holes through it. A smudge of carbon occurred on the target paper where each port had "puffed" at it. About the only hazard incident to this is that one's fingertips get dirty if they are held over the escape ports. The gas blast is only slightly warm and not uncomfortable at all, nor dangerous.

Shooting the Remington M740 is a pleasant experience. The detachable clip holds four shots, and extra magazines are inexpensive. The bolt stop is the rear edge of the follower. A left side lever drops the follower after firing the last shot to allow the bolt to run closed. The ejection port is not planned as a loading port.

While this means that the gun ordinarily can be loaded only by placing a loaded magazine in the receiver, this is not a defect as might first be supposed. An automatic which immediately loaded the chamber upon insertion of a loaded magazine might result in many careless accidents, which would soon damn such a gun commercially. But safety with Remington is a first consideration and the new design avoids such an unhappy possibility.



When automatic rifles first came to be used for hunting, many complained that not only did they think such guns unsporting, but also a waste of ammo. But modern shooters know this has been a lament since the days of breechloading muskets—and there is very little truth to it. An automatic hunting rifle of high power is a sensible gun, market wise and from the shooters' angle. Wily game animals today seem to know that they are not born for long life. Two fast shots through the brush at a fading buck can do a lot of good.

Also there are many millions of sportsmen today who first learned about shooting in the service—with an automatic rifle. But still, to some, an automatic is an unfamiliar gun, and the Remington bolt which does not run forward when the clip is filled, without a separate and conscious motion by the shooter, is safe.

The Remington is designed to be magazine loaded, but though the ejection port is small, the chamber can be loaded through it. After the last shot, the bolt stays open. Placing a cartridge inside the port in the general vicinty of the magazine feed lips will be enough to insure that the bolt picks it up on going closed. Then, by moving the leftside follower depressor, the bolt will be freed and slam shut, chambering safely the fresh cartridge. On the target range, the gun can be fired rapidly over long periods of time simply by letting it work as an "automatic unloader" and popping in a fresh cartridge by hand. Since the magazine holds only four shots-a fifth may be placed in the chamber-this manual loading is as fast or faster than fussing with changing position and loading the same magazine.

Remington's instructions call this a "solid frame" gun, and caution against trying to remove the barrel from the frame. Actually the assembly is very clever, and involves a single massive screw and cap nut which holds the barrel breech lug against the front of the frame. This is set up tightly at the factory and requires a spanner to get it loose. This is not recommended at all except for major gunsmithing, or eventual refinishing. Simple disassembly involves unscrewing the fore-end front bolt, which also holds the front swivel on, and removal of the trigger group by pressing out two pins in the frame. Then the bolt is seen through the frame underside and the mechanism may be easily cleaned with a solvent wash. Since the gas nozzle is self-cleaning, theoretically no further attention is needed there.

Plenty of gunners will find this gun easy to shoot, and will be likely to fire GI war surplus corrosive ammunition in it. With non-corrosive Remington Kleanbore commercial ammo, no trouble is likely to occur, but with odd-lot scrap military fodder, some rusting may develop. Complete cleaning of the gas port can be done by taking out a small set screw which is held in by a punch mark—this closes a work hole where the gas port was drilled.

Shooting the new rifle with 150, 180, and 220 grain ammo failed to disclose any perceptible difference in kick. A clip of mixed

ammo was fired and subsequently 150 and 180 grain clips were shot without discovering any significant variation in kick. It is possible that 220 grain loads produced more muzzle blast, but this was not obvious enough to be definite. Actually, the gun kicked normally.

While matters of recoil are scientific, and can be tested by impartial machines, kick is so largely a psychological factor that a discussion of it pro or con for a gun often becomes absurd. The Remington in 30-06 certainly has a bounce. With a straight stock it can even be unpleasant, the cheek bone becoming bruised from the bounce. This is however a matter of stock dimensions—the ADL fired in test was stocked for a scope, straight and high on the comb, and the receiver was drilled and tapped for top mounts.

Without a scope, and sighted at 100 yards, it was necessary to get pretty low in order to get a sight picture. The standard stock is cut with more drop and a shooter does not have this problem with iron sights. Aside from this single objection, the gun handled well, was light-71/2 pounds-and accurate. At 100 yards firing from an arm rest at the Remington sighting-in target, three shots under 2" was obtained. The Model 81 predecessor to the new Model 740 compares with general accuracy figures of about 31/2 to 41/2 inch groups at 100 yards. Understandably, the fixed barrel gas-operated Model 740 is closer shooting than the obsolete moving barrel Model 81.

Sunming up, the new Remington at \$124.95 is a lot of gun. Well-finished, the new Remington styling of receiver allows many cash savings in manufacture to be made, savings which can be passed on to the customer. So far as "kick" goes, the gun is pleasant and easy to shoot . . . whether it kicks "more," or "less," or "the same" as other guns is a matter for the individual shooter to decide.

Standard stock is 131/2" long, with drop at heel of 2¾" and at comb of 1¾". On the high-comb stock, which is optional on the Model 740 ADL Deluxe Grade at \$139.95, the drop is only 2" at heel, 11/4" at comb. This is correct for scopes which are almost universally in use among serious hunters. It is too high for comfortable use of the open semi-buckliorn sight as fitted. The Deluxe Grade differs from the Standard in having choice wood with checkered pistol grip and checkered, full fore-end, decorative grip cap and sling swivels. Unfortunately, the swivels are for 1" slings, not the 11/4" slings so commonly found as war surplus. But if you want to buy this Remington, it deserves a new sling, too.

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Look For

GUNS THAT KILLED PRESIDENTS

In The April Issue of GUNS

SCHUETZEN

(Continued from page 40)

8.15x46R from available domestic cases.

Reforming domestic brass to the 8.15x46R is a relatively simple operation. Except for length the dimensions of the 32-40, the 32 Special, and the 30-30 cases are all compatible with it. Of these the 32-40 case is the most easily reworked. If new, primed 32-40 brass is used, all that is necessary is to trim the case to an overall length of 1.816" and then fire from it. Those 32-40 cases that have been fired have to be full length resized before trimming to length.

In forming 8.15x46R cases from 32 Special or 30-30 brass it is necessary to run the cases through a 32-40 full length resizing die before trimming and fire forming. The Ideal full length resizing hand die used in a heavy vise or in an arbor press performs this resizing operation very satisfactorily and is the most economical die to obtain.

After 30-30 cases have been run through the 32-40 die and trimmed to length, the necks must be expanded to take the 32 caliber bullet. Any expanding plug in 32 caliber will do. If, however, you do not have a 32 caliber plug, the shank of a #"0" drill will expand the neck to .316". Open about 1%" of the neck with the shank of a #"P" drill. Chamfer the mouths of the cases with an 80 or 100 degree countersink so that the bullet will enter the case cleanly without shaving. In fire forming cases, 10 to 12 grains of #2400 behind any suitable 32 caliber bullet will form cases perfectly.

The majority of German Schuetzen rifles were custom built and the bore diameters vary considerably. It is necessary therefore to check the bore diameter of your particular Schuetzen before selecting a bullet for it. To measure the bore, tap a soft lead slug into the muzzle end until it completely fills the grooves then push it on through with a cleaning rod. Catch the slug on something soft so that it does not become deformed. Use a micrometer to measure across the raised portions left by the grooves. This will give you an accurate dimension for the bore diameter and should fall between 316" and .323" for individual rifles.

Any cast bullet for the 32-40 or the 32 Special can be used in the 8.15x46R. The Ideal #319247 165 grain flat base bullet, the Ideal #319273 183 grain two diameter bullet designed by Dr. Hudson, and the Ideal #319289 185 grain bullet designed specifically for Schuetzen rifles are all extremely accurate bullets in the German Schuetzen rifles. I have obtained the most consistent shots with the Ideal #319273 bullet shot as cast. The forward bands of this bullet thrown by my mold measure .316" while the two driving bands measure .320". When this bullet is seated so that the first three bands contact the lands, both of these rifles will consistently group in $1\frac{1}{2}$ " at 100 yds.

To obtain gilt edge accuracy from your Schuetzen, three important factors must be carefully considered. Bullet size, temper of the bullet metal, and correct bullet lubricant are all equally important. The bore diameter of your rifle will dictate the bullet size.



A bullet about .001" oversize upsets nicely and gives the best accuracy in my Schuetzens.

Bullet metal temper can only be determined by experiments. However, most German Schuetzens seem to give the best accuracy with fairly soft bullet. In casting bullets a mixture of 20 parts lead to 1 part tin is a good place to start. This mixture can be hardened or softened as is necessary to give accuracy.

The correct bullet lubricant is of the utmost importance to obtain gilt edge accuracy. All Schuetzen rifles, whether American or German, are temperamental on this score. One will give excellent groups with a soft lubricant while another will not group until a fairly hard lubricant is used. The best for any particular rifle can only be determined by experimenting with different lubricants and with various degrees of softness of each. My favorite, however, consists of equal parts of pure beeswax and parafin softened as required by the addition of Vaseline. This lubricant has given excellent results in my rifles.

To lubricate bullets, stand them on their bases in a flat cake pan allowing about an inch between bullets and pour melted lubricant around them until the top grease groove is filled. After the lubricant has hardened, bullets can be cut from it as required. An excellent cutter can be made by cutting the head off of a 32 Special case. Siniply press the mouth of the case over the bullet. Succeeding bullets will force them

out of the top of the case. Wipe all lubricants from the base of the bullets, size them if necessary, and they are ready to load.

The most accurate load for any particular Schuetzen rifle can only be worked out by trial. For my two Schuetzens #4759 and #2400 powders have given the best results. #4759 has given the most accurate loads using the Winchester #111 large pistol primer. With #2400 the best groups were obtained using the Federal #210 primer.

When working up a load for your Schuetzen, a good place to start is with 11 grains of either #4759 or #2400, the Winchester #111 or the Federal #210 primer, and the 32.40 bullet of your choice cast 20 to 1. Increase the powder charge by .5 grain increments until the best groups are obtained.

The Haenel drop block Schuetzen performs best with 11.1 grains of #4759 and the Winchester #111 primer behind the Ideal #319273 bullet shot as cast. The Martini hinged block rifle gives the best groups with 12.5 grains of #2400 and the Federal #210 primer behind the same bullet. Either of these rifles will consistently group inside 1" from the bench rest at 100 yards with its particular load.

ARE GUN REPLICAS A FAKE?

(Continued from page 35)

started out as a sincere replica, only to become a spurious piece after it has changed hands a few times.

"Any collector's piece of any value has had its replicas and eventual fakes—paintings, silver, autographs, glass, books. In short, antique guns do not stand alone in the field of fraud by a long shot."

As strong as duMont is in his opposition to replicas, collector George McQueen of Omaha, Nebraska, is as heated in defense of the exact opposite view. McQueen points out that because gun collecting is becoming more and more popular, there are less and less antiques to fill the demands of newcomers to the hobby.

"Worthwhile old guns are far apart," notes McQueen, "Nearly all of the old trunks that grandpa put in the attic have been rifled. Most of us have sold our better pieces, in many cases because we needed the money. Who have these guns today? The fellows who never hunted them—the boys with the money. Most of the rare, good guns are now in private collections of the well-to-do, out of the reach of the average John Doe.

"He is the fellow who wants a replica of a good gun, if he wants to show the type that was used in a certain era or to fill in his collection."

McQueen maintains that the experienced collector cannot be fooled with a replica. "No man can make new metal have the feel of old. There is a telltale difference. I once heard an old collector say he could smell the new metal. I would defy anyone to offer a replica at one of our gun collectors' meetings as an original. Most fellows that looked it over could tell you all about it and likely who made it. The possibility of fooling anyone is remote."

Because replicas are acceptable in other fields, McQueen feels that they should be taken at face value in the gun market. "I see no more reason to shun these fine reproductions than to condemn the reproductions of fine paintings or of old furniture," says McQueen.

No doubt both sides in this controversy have many legitimate points to present. Curiously, the practice of "reconverting" old percussion rifles to a replica of their original flintlock state, has not aroused any question. Many fine gunsmiths have re-converted hundreds of rifles and pistols, always faithfully reproducing the parts used in the original. This practice seems to be accepted as permissible by the collecting fraternity. If this is so, then why not the whole gun, providing it is offered as a reproduction?

Making replica guns starts out legitimately enough. If a collector likes to shoot, he may want to try out some really rare gun which he possesses, such as a Walker model Colt—a gun for which a Texas man recently paid \$8,000. The value of the original gun precludes any thought of firing it . . . so, being an amateur metal worker, he may make a gun himself, scaling it directly from the original. Of superior steels, and hrand new, it is more safe to shoot than the older gun. Yet of the hundreds of thousands of gun collectors, one who really wanted to shoot a Walker is rare.

Wooden replicas have been made as novelty items for a long time. Plaster or plastic full-scale copies of old pistols, attractively mounted in wall frames, are sold inexpensively for den decorators. But a working, full scale pistol of steel is something else.

Workmanship must duplicate the original to be worthwhile—an approximation is not enough. In size, weight, and balance, the copy must resemble the original.

The demand for these replicas is small-not enough to warrant expensive tooling to produce a cheap article. The answer then is handwork, making each piece laboriously from bar steel and rods, cutting and shaping by filing and careful machinework. This labor does not come cheaply. Usually the gunmaker is a tool maker or machinist who enjoys doing this work in his spare time. But he must be paid for it.

The replica guns offered by one West Coast craftsman, who takes from one to two months to complete a model, sell at \$300 for a shooting Walker to about \$642 for a big Paterson pistol, complete in ease with working accessories. This particular man is careful to stamp his guns with his name, the word "Replica," the month and year of manufacture, and his address. He states:

"All products are marked inside on recoil shield and barrel lug (with my date and name stamp). They are all made very close to originals. Not more than 5 or 10 thousands differences. As of now, however, all replicas have different rifling than originals. All products sold with five day approval time. So far nothing has ever come back. In fact, it usually turns into a second order."

Those who have made copies of these guns for themselves, for friends, and for open sale as replica arms, see nothing "dangerous" or wrong in their work.

But the would-be faker has tricks to fool the public. Steel is easily rusted. Many of the most prized originals of rare guns are in rusted, worn, even much pitted and damaged conditions. So the bright, shiny newness of the replica becomes a drawbcck for the phony gundealer. He takes the replica and soaks it in vinegar till the grease is all off and the wood handle is wet. Then out in the back yard, the gun is weathered for a year or more lying in wind and rain. A few nicks with a hammer or a piece of iron will "age" the gun some more. Sharp corners at muzzle and cylinder front can be polished round.

When a collector sees a gun like this, and finds it offered at a price he can afford, perhaps only a little more than the cost of a replica, he will not always think of the chance of fraud. But as soon as he has parted with his money, he will begin to wonder.

Some replicas can be spotted literally from across the room. Grip curve is sometimes not right; barrel breech shaping is a little off. Yet even originals may vary considerably. "Tolerances" are mentioned by the replica makers. as fine as .005" or .010". Presumably if the replica is kept within these limits of the originals, they will be good copies.

Yet the originals will vary more than that,

in external dimensions! The pistol actually used by Captain Samuel Hamilton Walker, the original Walker, has one barrel flat which is narrower than the other two by twenty times the "tolerances" permitted—by fully .1". Yet there is no quarrel here over "originality." Even more to the point, a known Walker fake now in a middle western collection has a barrel breech which should under no circumstances have been mistaken for the profile of a real Walker. Yet it was a fake, and cost some one many dollars for a piece of junk.

Another much-disputed practice concerns the habit of some gun collectors in taking ordinary antique guns and having a modern engraver work on them. This practice is defended by McOuecn, who says:

"I see nothing wrong in having a gun engraved to suit your fancy. As long as guns have been made, this has been true. It is no crime to deepen the original markings or re-chase worn scrollwork as long as the old layout is followed exactly. What difference if I have my favorite Single Action bedecked with cattle brands of the old West? Or ordered one in the old days with fancy scroll work? To me it's the same."

But some people feel differently, and say so. One of these is duMont, who condemns the practice in these words: "Engraving plain antique guns and making 'presentations' out of them just isn't right, and we should widen that narrow band of moral right that divides the out-and-out criminal act from the non-criminal 'fast deal'."

Certainly there is nothing wrong with engraving on new guns. On a currently-made "use" item, a man naturally wants a certain amount of decoration. A well-engraved pistol, with ivory handles, is a completely practical thing and yet artistic. It satisfies the inner longing to have fine possessions, something a little nicer than ordinary. On a modern gun, this is understandable, but how about on an old gun?

A hundred years ago some very fine engravers were at work in arms factories. In America, distinctive styles of work developed, and the designs and skill of these craftsmen is such that today, though we may not know their names, their work can be identified. Two guns, old Colts with old engraving on them, can be placed side by side and one can say "the same hand did this work." Now suppose we take a plainfinished old Colt, and turn it over to the engraver for decorating in the antique manner. What have we when we are finished. Is it an "antique?" Well, partly . . but where is the line to be drawn?

Most of the old guns, which have been so treated are interesting in one respect. They are all dogs, guns in very poor condition after recent cleaning, and in them elves of little value for either collector or shooter.

No one should dictate to a man, that he can or cannot make a replica of a gun—or anything else. But when his replicas begin to affect others, to take money out of an honest man's pocket, it is of concern to all gun collectors.

Not too many people will ever get caught by phony Walker pistols. But plenty of collectors of moderate means can afford the hundred dollars or so for a good Colt made a few years later than he thinks. It might be you sometime.

BOOKS in **REVIEW**

READING - OLD AND NEW ---

PROBLEMS of how much to pay for an old gun cannot easily be solved, but a good rule is to follow the price levels paid in the past. The OPA from 1941 to 1945 had a regulation prohibiting dealers from charging more than 75 per cent of the new list price for any used gun, in no matter how fine condition. As a general rule this serves well for some arms, but it is only a guide during the postwar spiral of prices. Many guns made immediately prior to the war have become collectors' items, so a ready reference of values is necessary. There are several volumes that serve as a reliable guide.

THE GUN COLLECTOR'S HANDBOOK OF VALUES by Charles E. Chapel (Coward-McCann, N.Y., 403 pp., \$5.75).

Charles Chapel's book is both informative—and misleading. The novice gun collector can easily get a distorted view of prices. But any book listing many prices will become "dated," even a dealer's catalog.

Although listing 28 different arms categories, such as "Kentueky Flintlock Pistols" and "American Automatic Pistols," with nearly 3,000 individual gun descriptions and values listed, Chapel tries to take off the sting of static prices. His introduction is valuable by indicating price changes in terms of percentages, while prices in the text of the book remain at their 1947 level. Chapters on "Gun Values" and "Condition" reflect the author's considerable experience. Listings of arms which have been popular with fakers are often followed by the excellent remark: don't buy one unless three experts of national reputation pronounce it genuine!

In all, Chapel's book is one of the really necessary books for the collector. The listings alone are an education in arms collecting, while the prices, although not at all absolute these days, offer an accurate guide to relative prices in the field.

AMERICAN FIREARMS MAKERS by A. Merwyn Carey (Crowell, 145pp., \$5.).

Aside from that rahid group of collectors whose only concern is the name "Colt," author Carey's book will prove a valuable reference in the library of the general gun enthusiast. Arranged alphabetically, each section of the book terminates in a useful blank page or two, where the collector may record hitherto unknown names of makers which he may have uncovered in his own research.

There are several entries which may pose questions to the advanced collector, but in general, the field of American firearms makers from colonial times to the present is well covered. A truly comprehensive work has yet to be written, but until the time such a monumental tome appears, Carey's neat, concise, and well-arranged listing of names, dates, and places will satisfy most anyone's questions as to "who, where, and when."

THE GUN TRADER'S GUIDE by Paul Wahl (Greenberg, N.Y., 225 pp., \$3.95).

Another book of great use to the modern collector and "gun hug" is Paul Wahl's listing of over 1400 different arms made in all parts of the world from 1900 to the present. This is obviously not all-inclusive of every firearm made anywhere in that period, but such basic firms as Mauser and Walther, as well as American makers, are covered in considerable detail. Descriptions are often from catalog material and are essentially accurate.

Prices are listed as being for guns in "excellent" condition—a state which is also defined, not simply left hanging in the air to be argued over. No pretense is made at being "comprehensive," but the many detailed listings of most American guns produced during that period will be of much aid to the gun enthusiast who takes his collecting seriously.

PISTOL & REVOLVER CARTRIDGES by H. P. White and B. D. Munhall (Infantry Journal Press, 2 vols., \$15).

There are cartridge collectors who exist as a highly-specialized sub-group under the general heading of "gun enthusiast." They need read no further, for they will already have these invaluable books. But to the general gun collector and shooter who likes to fool around with odd numbers, these are likewise a must.

Volume I covers metric designated pistol and revolver ammunition from all over the world. Hundreds of entries in detail describe every hasic type of such cartridges known. from the tiny 2.7mm Kolibri to the 15mm Gendarmerie pistol cartridge of ca. 1900. Typical of the detail is the coverage of the German Luger round, including various pressure figures gained from actual testing by the authors. Of course, many rare cartridges must be slighted, from lack of information. Indeed many are known only by reason of listing in some obscure ammunition catalog of bygone days, no specimens having survived to be known. Of value to positive identification are the many cartridge silhouettes printed exact size, on which a doubtful cartridge may be placed for comparison.

Volume II is on the subject of Centerfire American and British pistol and revolver cartridges. There is some overlap between these two books, the 7.65 Browning of European designation, for example, being known here as the .32 Colt Automatic cartridge. If anything, this enhances the value of these books as cross references. Some of the novelty American pistol cartridges, such as the .43 Eimer Colt, may lead to an aroused interest in large pistol cartridges among shootees.

---W. B. E.

SOVIET MARKSMEN

(Continued from page 11)

"gun-bug", he modified it to suit his needs. The trigger was moved forward to the point where his shooting hand could get into action on the bolt instantly in rapid fire. The already-ample stock he padded out to his requirements. The heavy target-weight stepped barrel is somewhat different from the usual American contour but it certainly shot well for him!

Near Moscow is the city of Tula, Russia's "Springfield Arsenal," where the 1891/30 Moisin-Nagant and others of the Soviet battery of small arms are produced. The factory has come a long way since the busy days of the Crimean war. Then the Czar tried desperately to augment Russian arms in the field with modern mass-produced muskets made on new Robbins & Lawrence or Colt machinery which they bought in New York. Now the Soviet sportsman has his pick of the best war-surplus captured material - Walther or Mauser "Meisterschaftsbuchse" for the 22 enthusiast or fine Schuetzen rifles for the off-the-fingers shooters. Rebuilt at a government plant, to his specifications, he has a rifle equal to any.

Or perhaps, being a loyal Soviet citizen, one of the new rifles of Russian manufacture takes his fancy. The Nagant, in a slicked-up turn bolt sniper version, comparable to our "National Match" Spring-fields, is his for the asking—if he qualifies.

Click adjustable sights of the pattern pioneered by Lyman are in general use. Several small hore rifles are built for junior competition which are as good as any made in our own factories.

The Russian shooter, who has proved capable, has few problems. He wants to attend a match? Fine, the local officials will arrange it. He comes out near the top? Now, maybe, he can get that trip abroad . . . congenial good-fellowship with his shooting companions, no headaches with tickets, luggage, hotels or porters. All expenses are taken care of, all is arranged. His sole purpose and interest is to shoot as well as he can, for the record . . . and look at the record! And when he is older, and past his peak form, there are jobs everywhere as instructors.

There is something wrong here, something lacking, for all the rosy picture painted. He is certainly no sports amateur by accepted standards of the word. Where an American shooter must take his time out from earning a living to follow what to him is a hobby. the Russian counterpart has a gravy train so long as he is diligent and earnest. American clubs have to scratch and the National Rifle Association has to make widespread appeals for travel funds, but the Russian has only to go where he is ordered, expenses prepaid by the government. The U.S. International Shooting Fund is made up of donations out of the pockets of people who want to see America well represented among our foreign shooting friends. But the Russians have no financial worries at all. They have unlimited government funds to draw on. And the respected "Merited Master of Sport" never has to worry about where his bread

and butter is coming from. But is he an "amateur?" Certainly Americans would call him a professional, but who ever heard of a professional marksman!

There is the real joker in the stacked deck that red sharpshooters are dealing to us.

At this point the Communists will smirk, sit back and snidely say: "Sour grapes! The Russians beat the Americans in open competition and now you're hollering 'foul.'" In many ways they have a valid point. As long as we choose to compete against the Russian professionals with our amateurs, we must accept the rules and take our defeats in good grace.

But there is another answer. That is beating the Russians, but doing it our way, not theirs. As the fabulous track star Jesse Owens put it, the Russians are "only human" and America can defeat them "when the chips are down."

Major General Merritt A. Edson, National Rifle Association director, put it another way when he said: "I want to see the Russians shoot as a team under pressure some day. At Caracas they were ahead all the time. But I wonder what would happen if they started to lose. They just aren't supposed to lose-I think a few of them might crack."

But still America's amateurs just have to do better, have to work harder to attain better marksmanship. For even the Russians admit that "masters of the shooting sport" are made, not born.

GUNS ARE BIG BUSINESS

(Continued from page 7)

to function until 1947, so huge was the paper business of this gun-buying enterprise.

Police departments as well as private citizens aided in the search for arms for Britain right after Dunkirk. Confiscated pistols by the shipload were sent abroad. Thousands of fine sporting rifles and target pistols were either given or "lent" to the Crown. Fearful of a Hitler invasion, the British Isles almost overnight became a huge arsenal warehouse.

When the invasion of England never came off and the Germans were finally beaten, England had one export readily available to send to America and make up for its dollar shortage-the firearms sent across during the war. But the cagey British were not anxious to send their warehouses full of guns back where they came from-at least so they insisted for publication in 1947. There were "no surplus stocks of Enfield rifles to be had," the British informed the U.S. although during the war more than 750,000 of our 1917 Enfield rifles had been sent to England.

No less than six months after the Ministry of Supply had officially insisted that there were no Enfields for disposal, every importer in America seemed to have a shipload coming into harbor, ready to sell!

What happened in the interim that suddenly loosed a tremendous flow of cheap guns into the States?

Part of the answer concerns a man named Bland. Virtually none of the American dealers who got rich overnight on Bland guns know his full name. It is not of importance since Bland never lived to reap the profits of the tremendous gun deal which he first set in motion. He was a merchant prince of England, who got rich on war manufacturing. The purchase of a warehouse filled with guns was only one more speculation which he hoped would pay off. So he bought from the Port of London Authority the entire contents of a warehouse, where "souvenir" guns from British soldiers were stored. He had no market in view, only the notion that guns were good business.

The agent of one of the large American

mail-order gun dealers was in London at the time. He called on Bland and had a big deal all arranged: for fair value he would buy from Bland all the contents of the warehouse and then pay off Bland in funds to be deposited in a Swiss bank. Before the deal could be consummated, Bland died. And instead of one American dealer getting all the warehouse guns, the executors of his estate decided to sell in small lots with the approval of the British government, who suddenly had a change in heart about gun exports to the U.S. Selling directly from Bland's warehouse, the British unloaded a vast accumulation of weapons - Dunkirk guns, captured pistols, rifles and machine guns. The haul was sold in driblets-a thousand Mauser pistols, 287 Steyr rifles, 998 Walher PP's and similar odd quantities.

Prices of these weapons, sold in "as is" condition, were set on almost a "per ton" basis. One or two lucky buyers, including Hy Hunter, got in on the ground floor in buying British arms. The sudden flood of weapons set off a buying spree in the States and sowed the seeds for the postwar boom of the gun hobby.

Despite the unusual reasons for the boom, the future of the hobby looks secure. Collecting is important in the lives of many people as a means of transporting a harrassed man of affairs far from today's busy world to the past of the Wild West, the days of the Buccaneers and the Spanish Main. Collecting can be a safety valve which relaxes and diverts.

And as to value, that has been a keynote to gun collecting. Over the years prices on quality items have been firm. Through depressions and bad years, they have held and in boom times they have climbed. For the man who must think of his gun collection as an investment, for the average middle Mr. American who likes guns, this is not a minor thing. A wise collector reads much on his hobby, but no one person can know everything. Many people rely on honest, intelligent dealers to do a certain amount of thinking for them. This can result in a very well selected collection of top quality arms, no matter what the price range.

CARTRIDGES

(Continued from page 29)

yellow, red and purple 'cups' and range from light to extra heavy strength in that order. These are powerful loads, and the manufacturers caution that they must not be used in any firearm. So, I suppose these are not truly cartridges, but they look like them, act like them, and will show up in many collec-

"I have a couple of clips of 30-06s with an unusual headstamp-FA 39 P. What does the P stand for, Proof, Practice, or what? The cartridges seem to be regular ball cartridges as far as I can see." M.A., Mackinaw City, Mich.

In this case, "P" stands for Palma. What you have is some of the match target cartridges that were made by Frankford Arsenal for use in the 1939 Palma Target Matches. This type match cartridges often used special bullets and powder loads. The manufacture of these cartridges was always carefully supervised, and the rounds were continually weighed and inspected to insure uniformity and highest accuracy.

"I have a couple of questions to ask about Bullards. 1-Who made the cartridges marked 'Bullard 40-90.' 2-Were the 50-115 Bullard cartridges ever headstamped?" H.J. Detroit, Mich.

I once found a sealed box of the 40-90 Bullards bearing the UMC label, headstamped as you mentioned. U.M.C. Co. also used the headstamp "UMC SH 40-90" so this Bullard mark may be either the first type UMC mark of this caliber, or else it may have been a special contract for the Bullard Repeating Arms Co. 2-I do not think that any of the big Bullards, the 50-115s, were ever headstamped. I have never heard of any, and I have asked many collectors through the years.

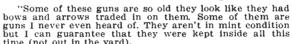
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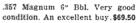
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COPS' LIVES

(Continued from page 32)

in place. Each groove is filled evenly, and the bullets come from the machine free of excess grease.

Dircks personally constructs his machines, each one of which is custom-built to order at tolerances ranging between .0003" up to .001". All parts are tested on a Rockwell machine for hardness, and are then either hard chromed, vapor blasted, or lapped to finish.

"When a police department pays \$1500 for one of my reloading machines, they want a machine that is going to last a long time and that looks nice, too," says Dircks.

The maker of these haby cartridge factories is a fellow who knows both ends of the business. While a member of the Los Angeles police, Dircks performed in many exhibition contests. In 1934 he won the Southwest International Championship at San Diego and the Northwest International Championship at Seattle. At Camp Perry, Ohio, in 1935, Dircks won the .38 caliber revolver championship. The next year at the International Quick Draw Match in Mexico City, Dircks set a world's record.

The contestants use 45 automatic pistols. Standing at the 10-meter mark with their backs to the targets, the shooters at a signal walk to a distance of 15 meters from the target silhouette. At the 15-meter line the shooters whirl about, draw and fire. Officer Dircks scored six killing hits in two seconds for the record. Police training had indeed come a long way from the headline days of "Bank Robber Kills Two Cops!"

Dircks still continues his target shooting. Almost every Sunday he can be found up at the Elysian Park pistol range with his 38's and 45's, practicing and practicing. And as he puts hole after hole into the bullseye, or looks at a fellow officer from the early days who has also survived, there is a certain satisfaction he senses. The reloading machine which he introduced is largely responsible. With eheap, "mass-produced" reloaded fodder for practicing, it is not a financial problem for police to qualify and live longer.

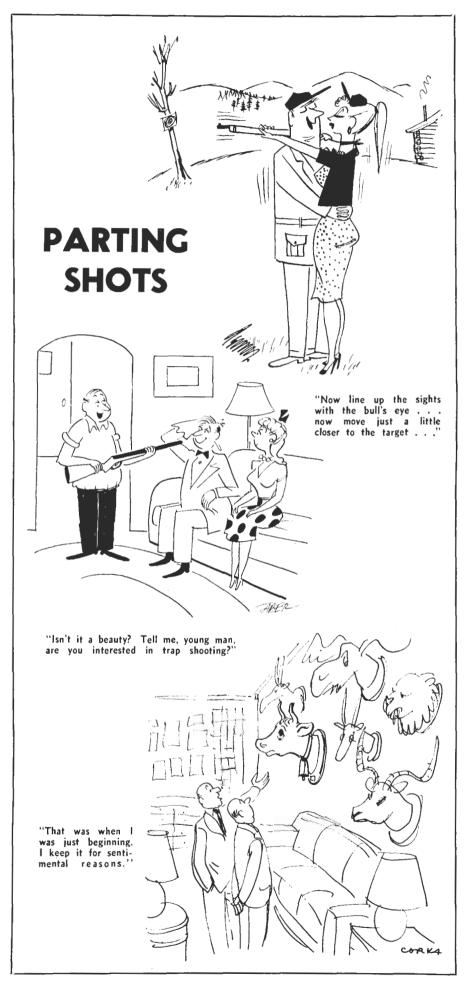
AIR RIFLE

(Continued from page 20)

Later a cannon was made, using air-power to throw balls, four-pounds weight. Reports say that after flying 1,000 feet, the ball tore through a two-inch thick wooden board.

Today many air-powered pistols and rifles are in use. After the mothballing of the last 1,000 guns left in 1815, Girardoni built a hunting rifle of 7.5 mm caliber in 1816.

For personal use, most European countries insisted that "the silence of operation of air guns is a danger, because of the possibility of misuse." For military purposes, the same thing happened to the air rifle as had happened before to the armed riders of the knighthood period when firearms came in: they died out.



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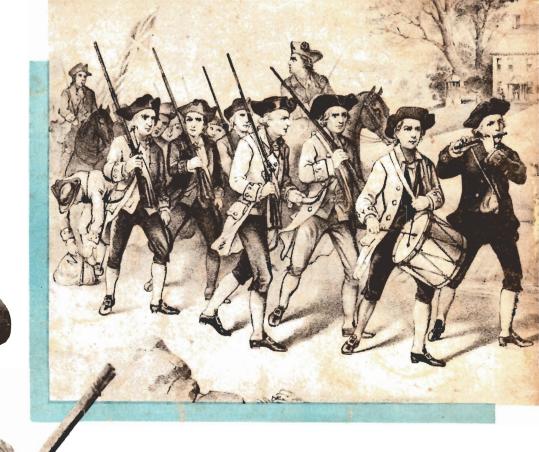
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