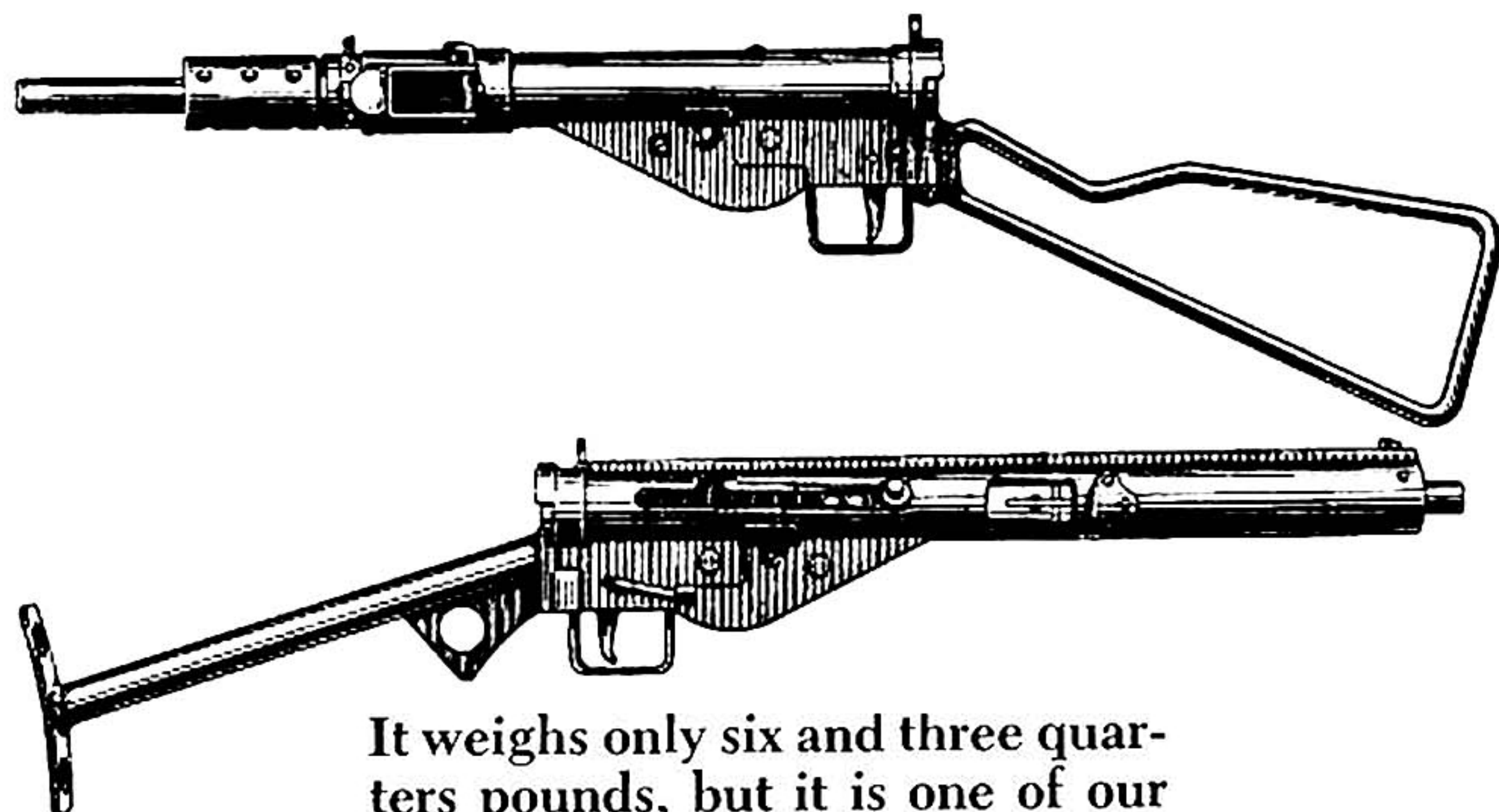


INVASION GUN

By Harry Henderson and Sam Shaw

PHOTOGRAPHS FOR COLLIER'S BY THE AUTHORS



It weighs only six and three quarters pounds, but it is one of our biggest weapons against the Nazis

ONE gray morning about a year ago a Nazi patrol, making its way through the woods near one of conquered Norway's towns, came across a small parachute dangling from a spruce limb. Attached to the chute and swinging gently in the breeze, was a small box. Inside, heavily coated with grease, was a disassembled, crude-looking automatic rifle and ten magazines of ammunition. The R.A.F. had been overhead the night before, but if there was any doubt as to the gun's origin, it was dispelled by the barrel-casing stamp: STEN MARK II, ENGLAND.

Returning to their barracks, the Nazi patrol assembled the gun. It consisted of four simple pieces: an all-metal stock, a nine-inch barrel, a piece of sheet-metal tubing containing the spring-backed breech and ejector, and a magazine holding thirty-two 9-mm. bullets. Not even the detailed instructions accompanying the gun were needed to assemble it. On firing it, the Nazis discovered the gun could shoot faster than their own Schmeisser machine gun—550 rounds per minute, and that it was amazingly accurate for so short a rifle. Within twenty-four hours, Reichskommissar Josef Terboven, head of the Nazi forces of occupation in Norway, had broadcast a decree of death for anyone found with a Sten gun. Thus, for the first time, the world learned that the British had begun the task of arming the people of Europe so that they could effectively revolt when the Allied Armies landed in their territory.

Since then, the Berlin radio has yammered frequently that the British have been dropping the Sten "in mass quantities." This is, of course, "a hideous crime" to the Nazis, who hate to think of meeting armed civilians. According to the Nazis, the guns have been dropped by the thousands in France, Yugoslavia, Greece and Norway.

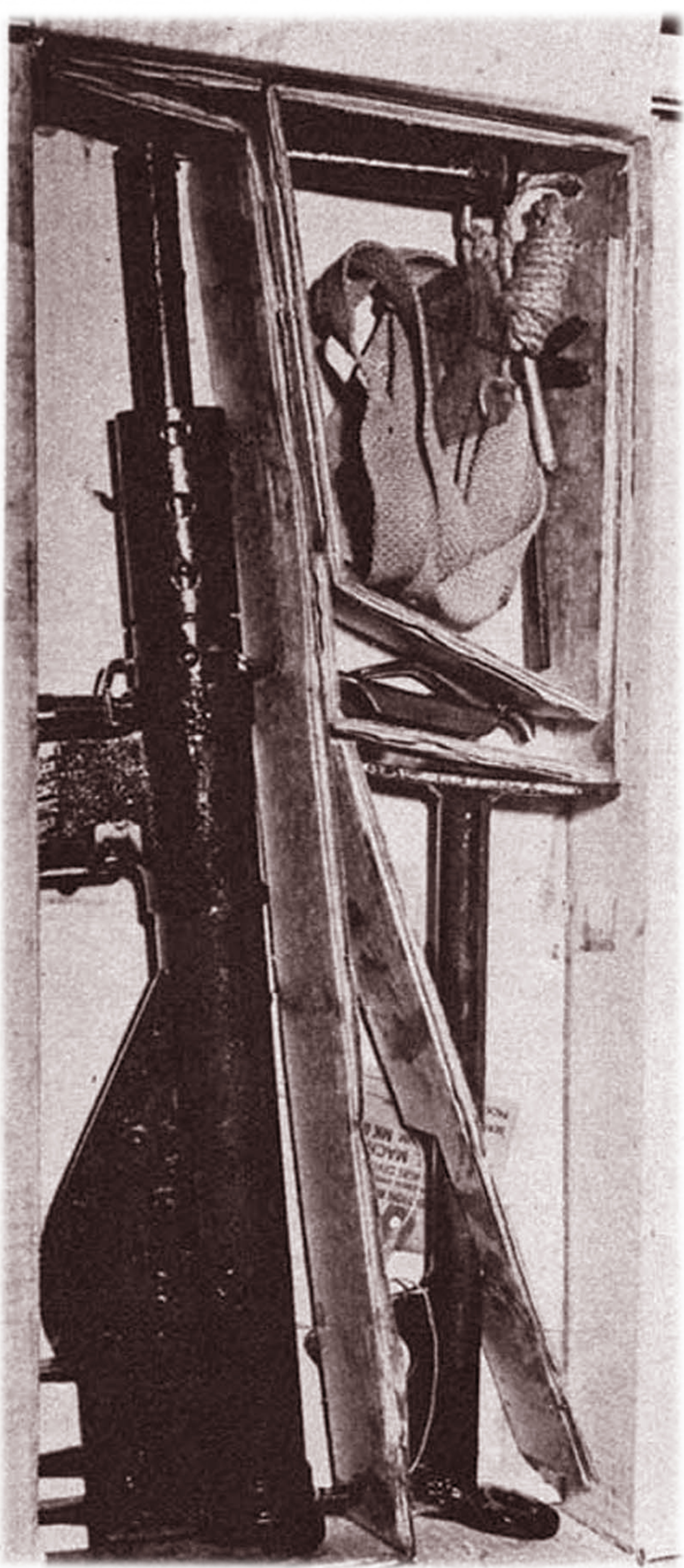
Correspondents in England have known about the Sten, which they have identified as the "Woolworth" gun because it costs only about \$10 to produce one, but until recently, the British have been reluctant to

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release much information about its construction, production and performance. At the Small Arms, Ltd. plant, some fifteen miles west of Toronto, Canada, where the gun has been manufactured for almost two years to supplement British output, we were permitted to observe its production and watch it pass through firing tests.

The gun is as ugly as murder itself. Somehow you can't imagine anyone patting it lovingly or naming it "Gertie" the way soldiers do their sleek Springfields and Garands. The lack of a wooden stock makes it appear muzzle-heavy, and the metal tubing used for a stock looks like a piece of junk. In fact, the whole gun looks like a piece of plumber's pipe stuck into a sleeve of drainpipe with a trigger attached. It isn't until you pick it up that you get the feeling that it is a mighty deadly weapon.

This crude simplicity stems from the haste with which it was designed and thrown into production, one of the most amazing stories of the war. The Sten was invented out of desperation in the fall of 1940. In their heroic evacuation at Dun-



**A Sten packed for shipment.
Ten clips of 32 shots each
will be added.**

kirk the British army had lost most of its guns, rifles and ammunition. There were only a hundred tanks in all of Britain, mostly antiquated pieces left over from the first World War. As the Nazi Luftwaffe began pasting London, the invasion of England was expected from day to day. To meet the crisis, over a million men enrolled in the Home Guard, and then it was discovered that there were only enough rifles for a few men in each company. It began to look as though the Battle of Britain would be fought in the streets and on the beaches with whatever weapons could be improvised.

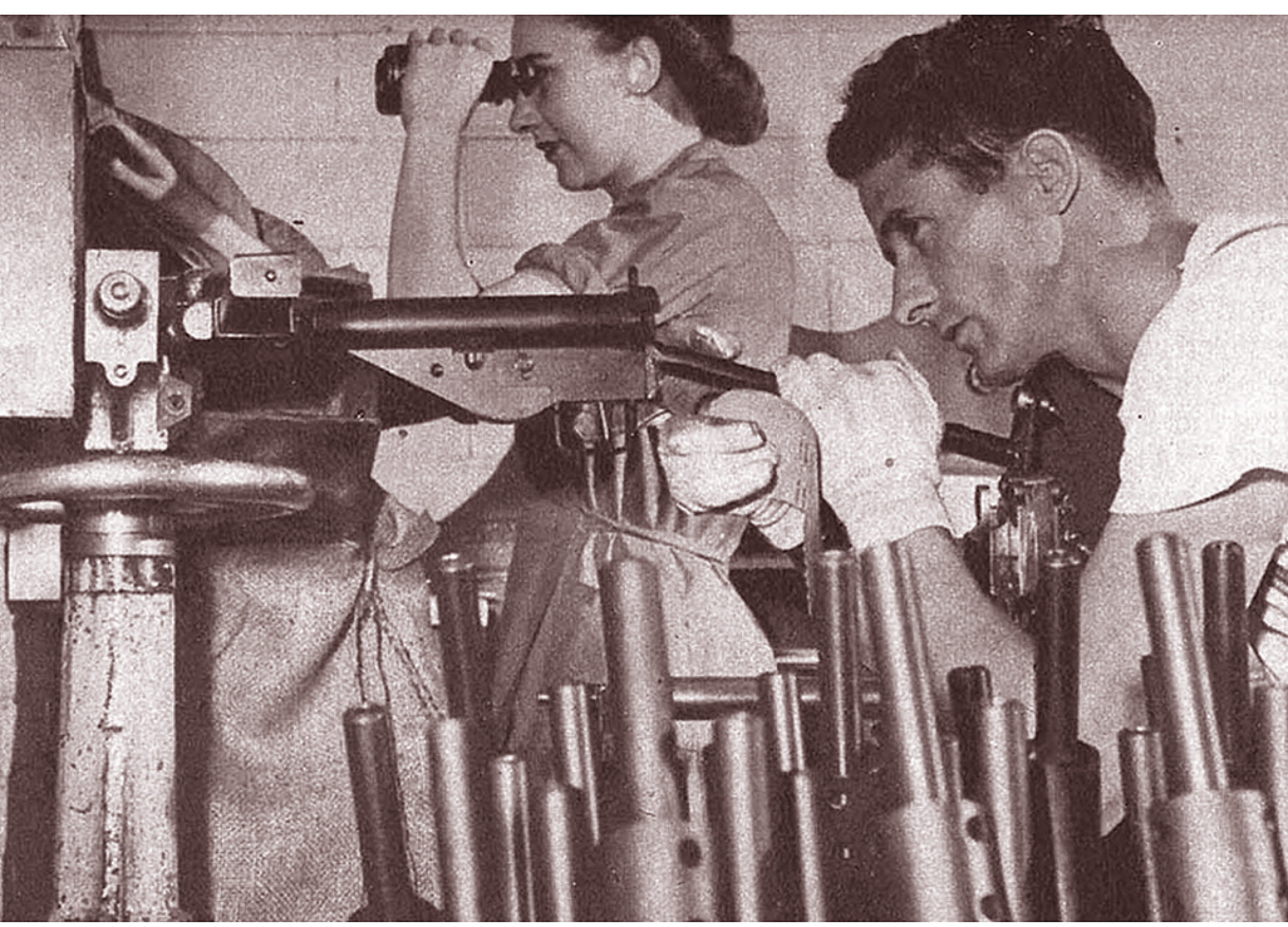
Among the improvisers were two men identified by the British Ministry of Munitions and Supplies only as a Major Sheppard and a Mr. Turpin, a civil servant. They set to work to turn out a light submachine gun with which Britain's defenders could be equipped quickly for street fighting, which required no training to use, and which could be used in the offensive against the Nazis when that great day came. Like the gun they created, the Sten's inventors were completely unorthodox. The Thompson submachine was worked on for months before the first model was completed. But Sheppard and Turpin had completed their drawings within two weeks, and within thirty days they had the Sten gun No. 1 plunking bullets into targets.

Speedy, Practical and Cheap

To the great satisfaction of its inventors, the new gun fired at a rate of 550 rounds per minute, almost as fast as the United States' Thompson submachine gun; it could be used from either the hip or shoulder and it cost practically nothing to produce. It weighed only eight pounds. But the designers' greatest innovation was in the 9-mm. ammunition. The same size is used by the Nazi, Italian and Japanese armies. This meant that captured Axis bullets could be used, tremendously reducing the problem of supply.

At the same time, they put a nick into the rim of their 9-mm. cartridges, which makes it impossible for the Axis to use their ammunition without replacing all the ejectors in their guns. Now that the defense of Britain is no longer a problem and the Allies are about to invade Europe, this feature makes the Sten doubly valuable, for the underground armies can supply themselves with captured ammunition.

After slight modifications, the new gun was accepted by the British War Office. It was named the Sten—the S representing Sheppard, the T for Turpin, and En for England. Sten gun No. 1 is still in existence and has fired over 5,000 rounds.



The Stens are sighted before leaving the factory.

Not many Sten Mark I's had been produced when the inventors found they could shave the weight from eight pounds to six and three quarters. So Mark II was put into production. Still later they found this weight could be cut to six pounds six ounces, creating Mark III. But Mark III production has not begun to touch the output of the Mark II.

Henhouse into Factory

Sten production was even more miraculous than its invention and just as unorthodox. It would seem that all those people who we believed could never survive the Nazi air blitz, not only lived through it, but were producing Stens. Production of the Sten was turned over to a young man still in his twenties whose name is still withheld by the Ministry of Munitions and Supplies. A quick tour of midland England showed him that all the available factories were so busy on other war work that they could produce only a few Stens.

Given a free hand, the young man broke all the rules in the mass-production rule book. He found garages that could make the sheet-metal tubing, cellar workshops that could machine breechblocks, a pram factory that could make the stock. In one town, he found an empty henhouse where he set up a capstan lathe and some drills to make rough cuts on barrels, and he got enough volunteers from the town's married women to keep them busy night and day.

Stables, laundries, lofts, even the garrets of homes became tiny workshops. Machines that couldn't make fine cuts were used for making rough ones. The better-equipped shops handled all the final tooling. Within the space of a few weeks, he had over 300 workshops, such as they were, making Sten gun parts, and the guns were being assembled at government ordnance factories in mass quantities by early December. The guns seemed to be coming out of nowhere, and no one was more surprised than munitions officials.

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Coral Milton of Mimico, near Toronto, near Toronto, Canada, stacks tested Stens on a truck for transfer to the shipment department of the plant. Many of the girls prefer to wear turbans like Coral's instead of a net cap to meet safety regulations of the company.

The Nazi Luftwaffe was mass-raiding Britain nightly then, and while the Sten's decentralized cobweb production system was not seriously affected by it, it was felt that a complete production line for the Sten should be set up outside England. The invasion of England by the Nazis looked almost certain. The Small Arms, Ltd. plant outside Toronto, which had previously been producing in tremendous quantities only the Canadian version of the famous British army Lee-Enfield rifle, was selected as the factory where the Sten could be most easily put into production.

At the Small Arms plant, the Sten is produced almost entirely by women and girls, from every part of Canada. Three quarters of the plant's 5,000 employees are women. A large number of them come from the distant western provinces of Canada. Few of them have ever done factory work before, but they have been turning out thousands of Stens a week for a long time and would do more if given the chance.

Almost five hundred live in a dormitory within a few minutes' walking distance of the factory. Others room in near-by homes and in Toronto. They are a lively, hard-working gang who like to bowl, play softball on the plant's new recreation field and are enthusiastically taking up archery. All that is on the surface. Underneath, they suffer from homesickness and loneliness, and the war is always with them—more so, it seemed to us, than with war workers in the States.

"Probably half the girls working here," said one of the six women counselors who listen to the girls' problems and solve their troubles, "wouldn't be here if it weren't for the fact that they have brothers, sweet-

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hearts and husbands overseas."

Girl after girl, from places like Sudbury and Winnipeg and Vancouver, told us she had quit a better job to work in "something to help win the war." Absenteeism is negligible, for the memory of Dieppe is grim.

Tryout on the Range

Out on the range adjacent to the plant, we saw the finished Stens getting their firing tests. The guns are tested for accuracy, firing five shots into a bull's-eye at 150 yards, which is regarded as the maximum distance for accuracy for a Sten. They are tested for single shots, bursts and continuance firing. The noise of five Stens firing at once is deafening.

Another test includes firing the gun almost straight upward into a pipe which ricochets the bullets into a barrel of water. They are also fired straight downward into another pipe in the ground to make sure the gun will work in any position. After each gun has been tested it is coated in grease and packed into a cardboard case.

Trial in Actual Combat

The Sten got its first big battle test in the Commando raid on Dieppe in August, 1942, and proved itself an excellent street-fighting weapon. Its only fault was a tendency to jam when first fired and eject the entire magazine instead of a single shot. Commandos found that a brisk bang on the cocking handle corrected this, and once the gun was heated up, the fault never returned. There is no record of a Sten wearing out, despite the fact that it requires no lubrication.

The gun breaks down into three simple parts, easily concealed in a pocket or skirt. When dropped into occupied Europe, each gun is accompanied by ten magazines containing thirty-two cartridges each. Anyone can put it together by trial and error in a minute or two, and it can be used by anyone lacking previous rifle practice. The reason for this is that it is not intended to be an accurate weapon. The idea with the Sten is to spray a small area, and this it does very well. For street fighting, it is probably the best gun ever developed. The United States has a similar gun, known as the M-3 submachine gun, but it weighs three pounds more than the Sten and has not yet gone into mass production.

Since 1940, the British have produced over a million and a half Stens. The answer to how many have been dropped into occupied Europe will be written in Nazi blood with *Festung Europa* when the Allies smash into western Europe.

THE END

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The Sten assembly line is short because the gun itself is simple. There are altogether, including screws, only 49 parts, and the main parts have been sub-assembled before reaching the belt. It takes less than a minute to assemble each gun.

