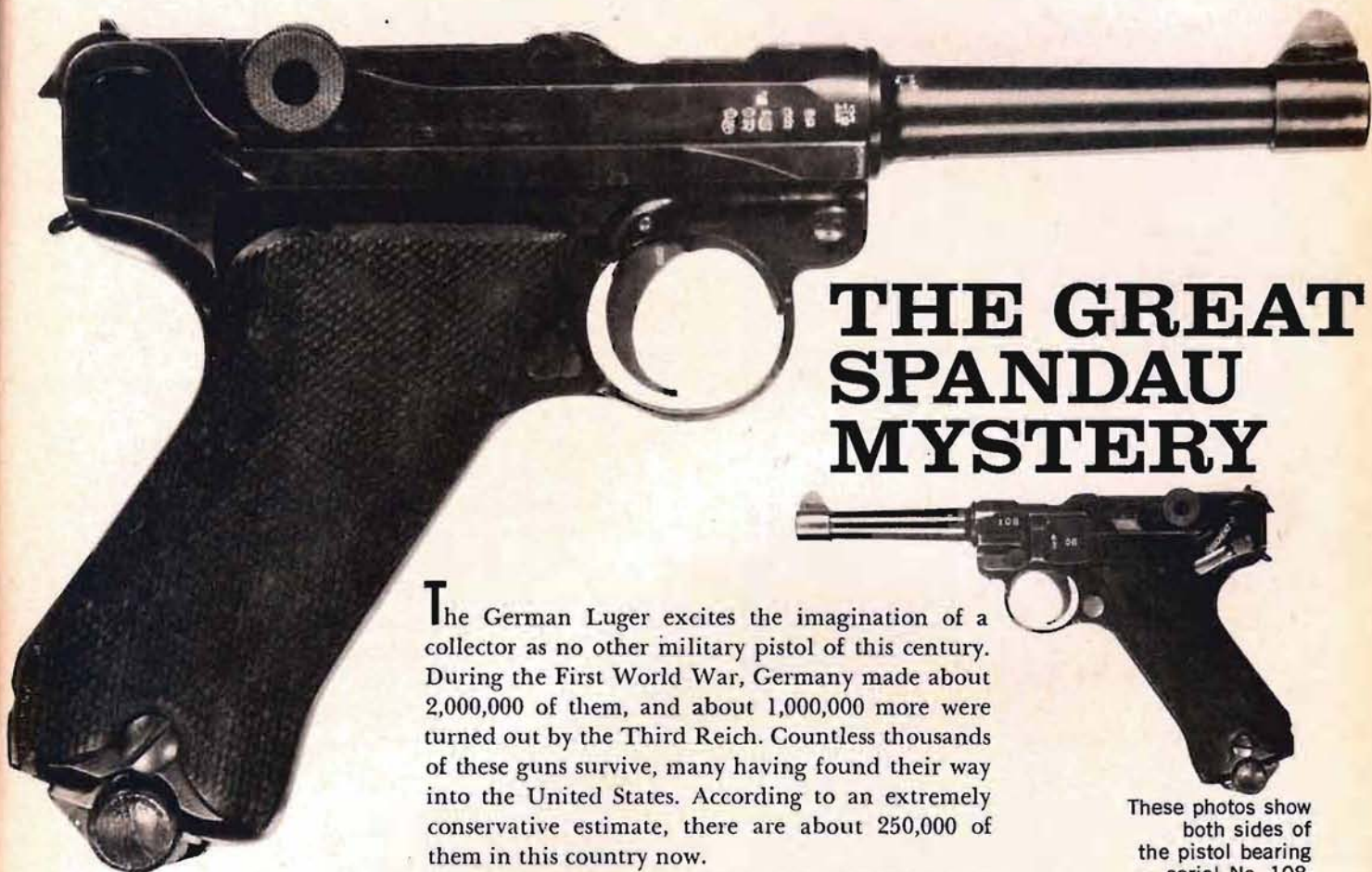




By M. Budd Mittleman

Peer over the shoulder of this firearms detective as he solves a mystery that has puzzled many expert Luger collectors for years

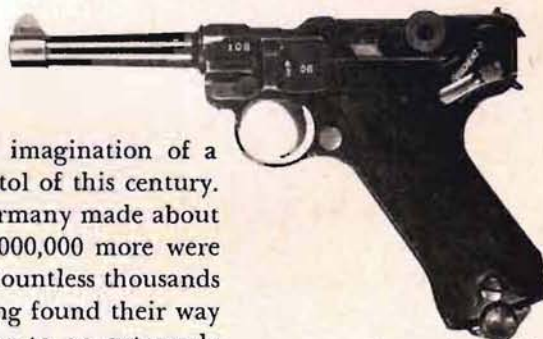


THE GREAT SPANDAU MYSTERY

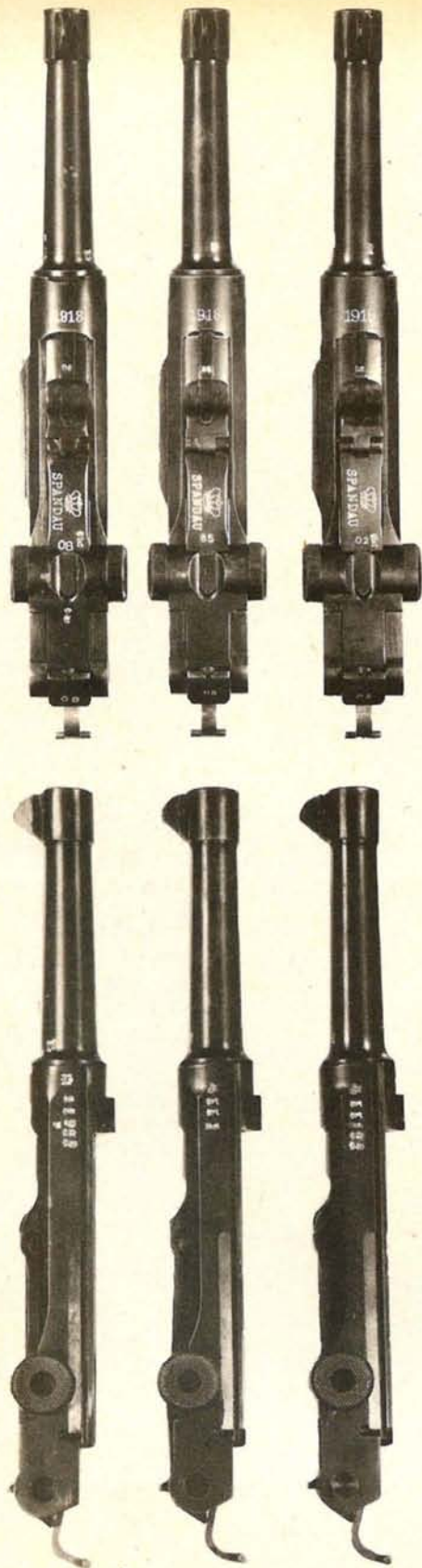
The German Luger excites the imagination of a collector as no other military pistol of this century. During the First World War, Germany made about 2,000,000 of them, and about 1,000,000 more were turned out by the Third Reich. Countless thousands of these guns survive, many having found their way into the United States. According to an extremely conservative estimate, there are about 250,000 of them in this country now.

It is generally accepted that the World War I Lugers were all made by the Imperial Arsenal at Erfurt and the Deutsche Waffen und Munitionsfabriken (DWM) in Berlin. But for many years there has been a legend among collectors concerning the existence of another Luger built at the Spandau Arsenal. The factory at Spandau normally concentrated on heavier weapons such as machine guns, and even extensive firearms collections do not include a pistol that was produced at this plant. If

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These photos show both sides of the pistol bearing serial No. 108. To a casual observer it may look like a conventional Luger, but it proved to be a genuine Spandau



In these top and side views, the barrels and receivers of the three Lugers exhibit a superficial similarity, but on closer inspection there are differences in the letters, crowns and tooling, among other things. No. '85 (the full serial number is 985d) is a counterfeit

Lugers were made there, they must indeed be a great rarity. Like many collectors, I've always been fascinated by the possibility of unearthing hitherto unknown Luger variations of this sort. If a Spandau does exist, it raises several questions: How does it differ from Erfurts or DWM's? If a gun stamped Spandau were found, would it be genuine or the result of artistic enterprise? Finally, if it was made at a government arsenal, why is it now so rare?

It isn't very often that the opportunity arises to investigate a problem like this. However, collectors who specialize in Lugers often stay in close contact with their brethren—and when a Spandau was rumored to be for sale about a year ago, I decided to buy it as a jumping-off point in solving this puzzle. Two months and \$38 worth of long distance telephone calls, plus a lot of money, brought me a Spandau. But was it really a Spandau? I studied it microscopically and it seemed to be the Spandau Luger of the legend. The gun appeared to have the right measurements and it was plainly stamped "Spandau." I still had my doubts about its authenticity, however. I wanted to see another Spandau so I could compare my specimen with it and get answers to some perplexing questions. Several months ago I had such an opportunity. After countless letters to gun collectors all over the country, not one but *two* more Spandaus were unearthed! Thanks to a special insurance policy (in four figures) to cover loss, I managed to borrow them. I was ready to undertake a minute examination and comparison of all three guns, plus further comparison with contemporary pieces manufactured at the DWM and Erfurt plants.

It was soon evident that the three Spandaus agreed on some points but differed on others. All three carried a 1918 chamber date, and each had a forward toggle link stamped with a large crown surmounting the word SPANDAU, stamped in capital letters. But while a number of the other characteristics seemed subtly different on the basis of side-by-side comparison, only detailed measurements, weights and other data could give me the answers I needed. Each gun was therefore stripped to its components and the various parts were weighed to the tenth of a grain (approximately .000025-ounce). Gross measurements were made with a vernier caliper accurate to .001 inch, while tool marks and certain critical parts were measured under a stereoscopic microscope with a toolmaker's micrometer accurate to .0001-inch, and with a high-powered micrometric eyepiece accurate to .00001-

inch. Still other comparisons were made by employing special macrophotographic techniques and enlarging the photographs 20 times.

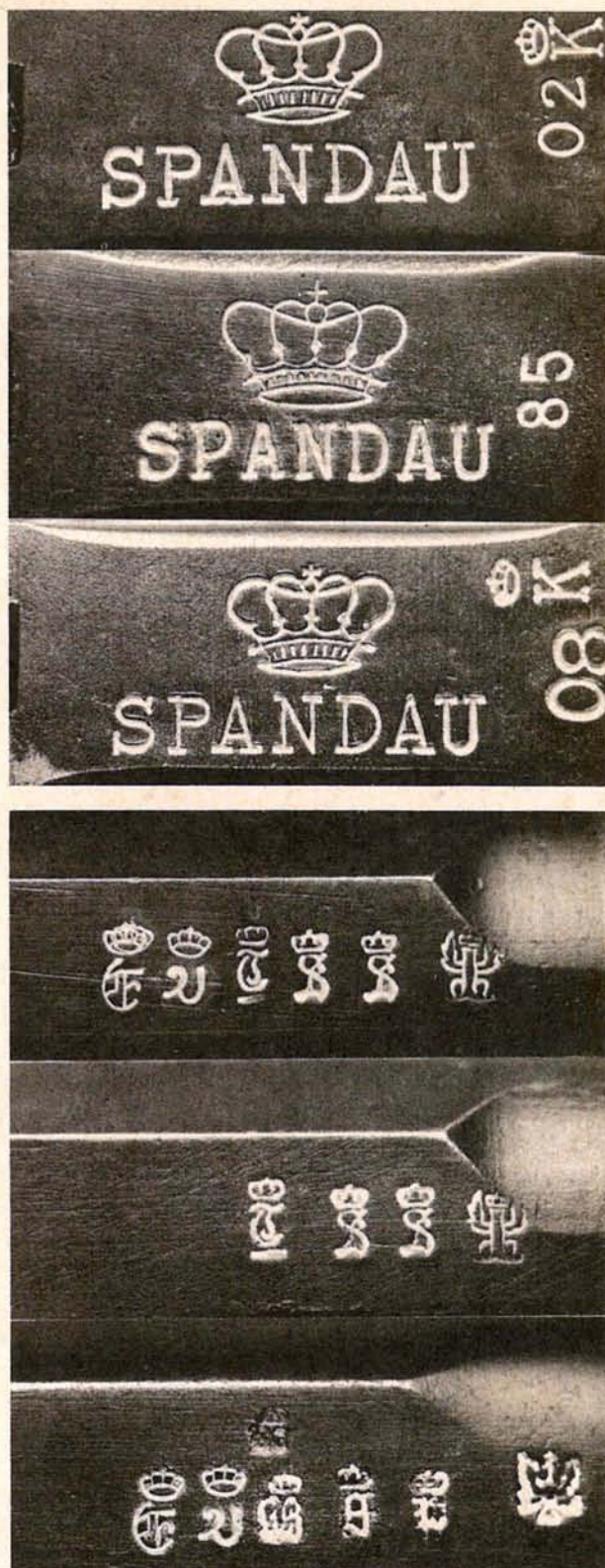
While it is true that manufacturing tolerances account for very slight differences between any two mass-produced guns of the same model, I knew that a comparison of *all* possible similarities and differences could tell me where these guns were made. A combination of such comparisons can be added up, first forming weighty evidence and then proof—just as a ballistic expert uses a comparison microscope to inspect all the markings on two bullets to find out if they were fired by the same gun.

One gun, serial No. 108, was bought from a GI who had obtained it in Germany. The second of them, No. 1802g, was bought from a sailor who had acquired it in Japan. The third gun, No. 985d, was bought by its present owner from a collector, but its previous history is not known.

Naturally, initial interest centered on the Spandau-marked toggles. Even a superficial examination showed that No. 985d was quite different from the other two guns in at least three respects. It lacked the prominent crown/K proof mark shown by the others, it had a larger crown and it employed different lettering for the SPANDAU mark. More detailed examinations of the three toggles—and subsequent photographic enlargements—revealed that the crown on No. 985d was not only larger than that on the other two guns, but was entirely different in detail. The orb on top of the crown was larger, the cross was of the simple Greek type rather than the stylized Maltese cross of the other guns and the ornamentation in the crown's headband consisted of 10 "pips" of varying width, as opposed to eight "pips" of fairly uniform width on the others. Comparison of the SPANDAU stamp used on 985d with that of 108 and 1802g showed immediately that the lettering on 985d was not as sharp or clear. Further examination of 108 and 1802g by overlaying the photographs of their toggles showed the crown and SPANDAU markings were made with a single die—and both of the guns were stamped with that same die. A study of 985d together with numerous Erfurt-manufactured Lugers showed the crown was from the Erfurt plant. The SPANDAU on this gun had been stamped over a re-ground area of the toggle. With these facts before me, and because the gun was in all respects DWM-manufactured except for an Erfurt replacement barrel, there was no other conclusion possible except that Spandau Luger No. 985d was an obvious fake.

Having disposed scientifically, though sadly, of one Spandau, the status of the other two became

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The top photo is a close-up of the three Luger toggles; note the differences in their markings and the lack of one crown on No. '85. The bottom view shows the proofs on the receivers. The gun that's missing two marks at the left end is the forgery

of even greater interest. While the two guns were identical in their forward toggle markings and certain other points, it was still difficult to establish whether their origins were the same, because they showed several differences. To add to the mystery, 108 carried Erfurt proofs on its receiver while 1802g had the DWM proofs there. However, both showed two marks in addition to and preceding the regular proofs, a Gothic capital "E" and a Gothic lower-case "u." Each of these letters was surmounted by an open-bottomed, four-looped crown.

But a closed-bottomed, three-looped crown was used for DWM and Erfurt wartime proofs. The significance of the "E" and "u" is not known, though it has been suggested that they may stand for *Entladung unternehmen*—literally, "proof-fired." Whatever these marks mean, there is no doubt that they were made after the proofs had been stamped. The crown/E also appears on the rear toggle link of No. 108, while 1802g has this mark only on its receiver. Further comparisons with several other DWM and Erfurt Lugers of 1918 vintage disclosed that the Spandau guns were closer to each other in their receiver dimensions than they were to others tested. The Spandau receivers averaged about .015 inch higher and narrower at the breech end than the DWM- or Erfurt-manufactured guns. These differences plus the crown/E and crown/u suggested the receivers were made and rough-finished by DWM and Erfurt, while final machining, fitting, finishing, and assembling were performed elsewhere—at the Spandau plant.

The frame of this pistol (No. 1802g) has marks known to be those of the DWM plant, but the "crown/s" on the trigger guard shows that some work was done at the Spandau Arsenal



The frames of the guns showed the characteristic contours of DWM and Erfurt, No. 1802g having the gently rounded butt toe of DWM while the other had the knobbier and more sharply angulated toe of Erfurt. However, 1802g may have had its frame forged at DWM and finished by Spandau. This seems to be supported by various DWM marks on the frame, and by a four-looped crown over "S" (presumably a Spandau mark) on the trigger guard. There is no question with the 108; its frame was entirely made at Erfurt.

My next move in solving this puzzle was to concentrate on the breechblocks and toggle assemblies of the two guns. Tooling and markings, both hidden and external, clearly showed that the breechblock and extractor of No. 108 came from Erfurt, while those of 1802g were just as obviously made by DWM. But detailed study of the toggle assemblies told another story. The forward toggles of the guns are, as previously noted, identical except for serialization. However, 108 carries the distinctive four-looped crown mark on its underside, while 1802g lacks it. All other evidence confirmed that the rear toggle link and toggle-knob assembly of 1802g were made at DWM. But in the case of 108, the evidence seemed to point elsewhere than DWM or Erfurt, and therefore presumably to Spandau. The width across the toggle knobs (from the face of the left knob to the face of the right one) is .024-inch to .032-inch less than in any of six Erfurts and eight DWMs of 1918 dating that I examined. Further, the circumferential milling of the toggle knobs of 108 encompassed at least 240°, as compared to an average of about 180° for DWM and Erfurt guns. The mill cuts on the circumference of the toggle knobs of 108 met each other and thereby formed readily felt and seen sharp edges; by contrast, in DWM and Erfurt toggle knobs, the milling was such that there was a small but perceptible "flat" between each pair of adjacent cuts. Finally, the rear toggle link of 108, in addition to carrying the crown/E mark, showed machine and tooling marks and small dimensional differences from comparable parts made by the DWM and the Erfurt plant.

My first examination of the two Luger barrels was fairly superficial, since it was obvious that the 1802g barrel was of DWM origin, as indicated by its proof marking, while the barrel of 108 seemed just as certainly to have come from Erfurt. More out of idle curiosity than anything else, both barrels were "slugged" (a reverse impression of the bore was taken with a slug made of pure lead), and the slugs were examined under the microscope. Sure enough, the

land and groove marks on the two bullets differed greatly. The same experiment with several more 1918 DWM and Erfurt barrels, followed by micrometric eyepiece measurements, showed that the barrel of 1802g was indeed comparable to others of 1918 DWM manufacture—but then came a surprise: The 108 barrel differed considerably from six Erfurt barrels of 1918 dating, and from five others of the 1914-1917 era. The groove width of the bore in 108 was .1102-inch, as compared to a range of .1002-inch to .1052-inch in the Erfurts. Barrels with greater evident wear have larger dimensions, but the lands of 108 were fairly sharp and clean. Further study brought out the fact that the barrel of 108 was 3.204-inches long from muzzle to receiver, compared to a maximum of 3.188-inches in the Erfurts examined. The front sight band was .616-inch long, compared to an average of .593 in the Erfurts. Finally, the serial number on the barrel of 108 was stamped with a different and larger type than any observed on an Erfurt barrel. This all seemed to point to an inescapable conclusion: Barrel manufacture and serializing were not done at Erfurt. The Erfurt proof and re-work marks on the barrel (the latter appears also on the frame and receiver) must have been imprinted when the gun was sent to Erfurt for reworking or servicing.

When the dust settled, it could be seen that gun 1802g represents a relatively small amount of work by Spandau, of a fairly simple nature—the finishing of the receiver and frame and the manufacturing and/or finishing of the forward toggle link. All other parts are of straightforward DWM manufacture. Gun No. 108 however, represents a greater degree of Spandau participation, since, in addition to finishing of the receiver, the entire toggle assembly except the breechblock, plus the barrel, differ from those of known manufacture—and in the light of what we know today they are attributable to Spandau. This much of the controversy seemed settled: The Spandau is a partial subcontract, or composite gun, but is certainly quite real.

What about some of the other questions? How do you tell if you have a genuine Spandau? First, compare it with pictures and specifications in this article—including as many of the measurements as possible. Next, take it to a dealer or collector who specializes in rare guns of this vintage. If he seems very optimistic, write to me in care of this magazine and I will help you with identification.

This brings us to imitations of the real thing. Why would anyone fake a Spandau? The answer is quite simple: Rare guns are extremely valuable. If a

collector were *convinced* of such a gun's authenticity, he might pay well over \$1,000 for it.

One big question remains: If the Spandau represents the combined efforts of two great arsenals and a huge manufacturing combine, why are specimens so rare? The history of the First World War provides the answer. By early 1917, the Allies and the Central Powers had fought to the point of exhaustion and stalemate. When the United States declared its entry into the war on April 6, 1917, the German Imperial High Command launched a series of violent offensives in an attempt to improve its strategic position. These lasted through most of the year. They proved extremely costly in men and material, and the certain Allied counter-offensive to be expected in 1918 signalled still another frantic—and as it turned out, final—whirl of production to replenish much-needed supplies. Until then, Spandau hadn't been employed to turn out pitsols.

It seems significant that both Spandau Lugers are dated 1918, the year of crisis for Germany. With the advantage of hindsight, we can see that neither DWM nor Erfurt could meet the demands imposed by the High Command for 1918. The differing amounts of Spandau work in the two guns at hand, as well as the historical picture, suggest that a two-phase program was set up to utilize Spandau's facilities to increase Luger production. Phase One, which started perhaps late in 1917 or early in 1918, probably consisted chiefly of finishing and assembling components supplied by DWM and Erfurt. Phase Two must have begun some months later, perhaps in the spring or early summer of 1918, and comprised more basic manufacturing operations such as boring, milling and grinding. If a Phase Three had been planned, it might well have included a completely integrated manufacturing program, from forging to finishing.

Against this background, the present-day rarity of Spandau Lugers becomes easy to understand. With the Spandau plant's heavy commitments to machine-gun and other manufacturing, very few Lugers could have been turned out by the arsenal, quite possibly only some hundreds. Guns lost on the battlefield during the titanic struggles at Belleau Wood, Chateau Thierry, Meuse, the Argonne, etc., surely accounted for a good part of this extremely limited production, so that today genuine examples of the Spandau Luger are almost unknown. By all odds the Spandau must be reckoned among the rarest of military-issue pistols. If you own an old war-souvenir Luger, better take another look at it... you just *might* have a Spandau! □