FIREARMS JOURNAL · NUMBER 56 · OCT/NOV, 1992 · £1.25 SERVICE RIFLE SCANDAL NEW U.S. M11 SERVICE PISTOL BRITISH SMG'S BROADSWORDS MAUSER 1398K RIFLE ATTLE PISTOLS

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## COVER

"How fares the SA80?," we ask ourselves from time to time, feeling an obligation to bring a bit of light and truth to bear on the rifle which for six years has been our emblem, appearing on this masthead in every issue since No. 36. As those of you who have been the route know, we have not shirked that duty. With this issue, our coverage of the SA80 to date reaches 61 published pages and constitutes a contemporary record unrivalled for any other small arm, and one that has assumed particular importance these past few weeks. Fleet Street, you may have noticed, has discovered that the SA80 performed badly in the Gulf: it does not cope with sand. The MoD has known this for years. The rifle resolutely refused to pass the sand tests prior to adoption. And post-adoption, it was sent off to Oman with the Royal Marines as part of Operation Swift Sword, a massive, multi-arm desert warfare exercise: a dry run for Granby. Shown here are men of 40 Commando taking defensive positions on the island of Masirah. Photo courtesy the Royal Navy.



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## Beretta Battle Pistols



ome developments in firearms represent real progress; others are cosmetic alterations, made for marketing reasons, or because of changes of fashion. It is rarely appreciated the extent to which the latter outnumber the former. Thus, as has often been pointed out in these pages, the *engouement* of American police chiefs for large capacity self-loaders is far more a matter of fashion than of necessity. Likewise, the almost universal changeover to 9mm would, we predicted, prove a passing fancy; it is passing already. But that is not to say that good guns are not being designed and built in the process. Very much a child

of fashion, but also one of the best combat pistols of all time, is the Beretta Model 92F whose latest rendition, the stainless Model 92FS-Inox, was recently received for testing.

The self-loading pistol, as a practical, fighting proposition, dates from 1896. The splendid "Broomhandle" Mauser of that year was followed, in 1900, by the Mannlicher and the Borchardt-Luger. These early autopistols had a lot going for them. Notably firepower and reach. They loaded by clip, packet or detachable box magazine, and invariably used the new smokeless powders that made the technology practicable. Revolvers, by contrast, were slow to load,



slow to shoot, issued forth great billows of smoke and had the range and trajectory of a siege catapult. The smoke problem could be cured. Moreover, revolvers worked: they functioned reliably and they floored what they hit. The early self-loaders developed a poor reputation as short-range manstoppers and, although mechanically quite beautiful, were ammunition dependent: with a revolver, a duff round could be cranked past.

As far as the military were concerned (Britain excepted) the 1st World War did it for revolvers. The self-loading pistol proved it could hold its own on the battlefield. Its firepower was invaluable at close quarters, and there was nothing in the nature of its mechanism that prevented its being a manstopper: the 1911 .45 proved that. Most importantly, the autopistol gained the respect of the troops. The U.S. Government Model forged a legendary reputation while the P.08 Luger emerged from the conflict with more of a mystique or an aura. Over the next decade or so, every significant military power save Britain would adopt a semi-automatic service pistol.

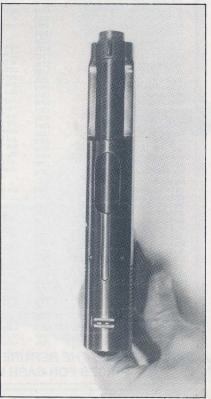
1935 was the annus mirabilis of the service self-loader: France adopted the MAS 1935A, Poland the Radom VIS wz/35 and Finland the M35 Lahti. But, most importantly, Belgium adopted the GP35, the famous "High Power" designed by John Moses Browning and Dieudonné Joseph Saive which, over the course of the next half century, would become the foremost sidearm of the non-Communist world, adopted by more than fifty nations. The distinctive feature of the High Power was its doublecolumn magazine, affording a 13-round capacity, compared to the normal eight rounds in a single-stack 9mm box. Curiously, this aspect, which must have figured

The 1910 Glisenti (or 1912 Brixia, as shown here) was a clean design and a splendid piece of craftsmanship—an excellent pistol of its period. The demands of wartime production, however, sidelined it in favour of the simpler Beretta. Marengoni's Model 1915 aroused initial misgivings due to its rustic simplicity. A straight blowback, it proved chunky enough for the cartridge (9mm Glisenti) and established the "Beretta style" right to the present. The rocker piece, transferring trigger pressure to the sear, served until past mid-century. The Model 1915's barrel

was secured by the trigger safety's axis, and lifted out the top with the slide locked fully back.

Ejection was vertical through an otherwise conventional ejection port. The slide bridge ahead of the port was principally cosmetic, but may have been felt to help secure the barrel, which was otherwise retained only by its seating post. Note the slide inscription, proclaiming the firm's foundation in 1680, a date which subsequent archival discoveries prove was far too recent.





somehow in the estimation of all of those test commissions that recommended the gun's adoption, went uncopied and unemulated until very recent years, when capacity has become all the vogue.

One of the lesser events of that year, even from our perspective, was the adoption by the Italian Navy and Air Force of the 1935 Beretta, a simple blowback design in 7.65mm Browning (.32 ACP). The occasion would have been more noteworthy were the gun not simply a modification of the 1931 model which the Navy had used since its introduction. Of more significance was the Army's adoption the year before of the Beretta Model 1934 in 9mm Corto (.380 ACP), ostensibly to replace the 9mm Glisenti of 1910. The Glisenti had not been a success. A weak and somewhat complicated gun, it used a cartridge dimensionally similar to the 9mm Parabellum, but less powerful. Italy's entry into the 1st World War outstripped the manufacturer's ability to supply it, and it is to this sudden and acute demand for pistols that we owe Beretta's entry into this field. Carlo Camarlinghi, Beretta's historian, feels that the firm was probably experimenting with self-loading pistols before the war, but had not got round to commercializing their designs. He feels that the basis of experimentation was probably .32 ACP, that first production was in 9mm Glisenti for obvious reasons, and that the .32 version, which remained in production until replaced by the 1922 Model, was not introduced until near the end of the War.

The Model 1915, designed by a young engineer named Tullio Marengoni, set the style for Beretta pistols ever after: in the machining pattern at the nose of the slide, the open-barrel architecture, and in a host of structural and stylistic details, you can recognise it in present day Berettas. Simplicity, always a hallmark of Beretta pistols, was exemplified in the 1915, which was a straight blowback design with an internal hammer and uncomplicated lockwork. The 9mm Glisenti version had a rotating thumb safety mounted on the back of the frame, above the web of the hand, and used a conventional ejector. The 7.65mm

Marengoni progressed his ideas considerably with the 9mm Model of 1923, which moved the hammer outside, simplified the safety/ takedown lever and opened the slide back to the breechface, while at the same time looping it over the muzzle, thereby locating the foresight on the slide along with the backsight.

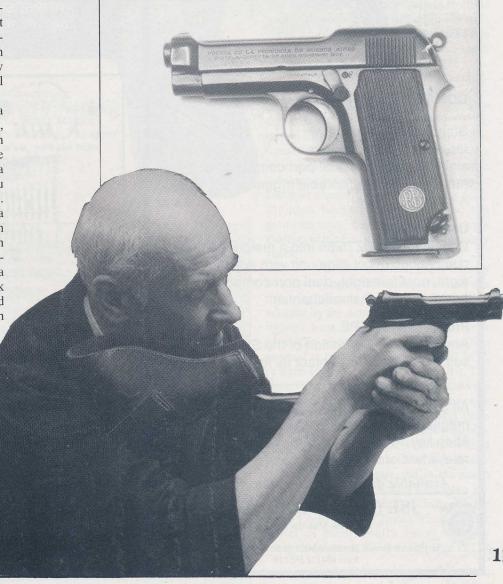
The 1923 Model was a substantial pistol, and was offered with a holster cum shoulder stock, the extension bar of which folded neatly along the leading edge of the leather for wear on the belt.

The 1915 Models, in 9mm and .32 ACP. were similar in design but scaled to the respective cartridges. Note the trigger-block safeties in safe and fire positions respectively. Design work probably commenced on the .32 before the war, but the 9mm was placed in production first to meet military requirements.





The 9mm Model 1915 had a second manual safety on the rear of the frame that blocked the hammer. Cloned from the Glisenti, it was almost certainly a military inspiration. The 9mm also had a frame-mounted ejector, while the .32 ejected from the nose of the firing pin.

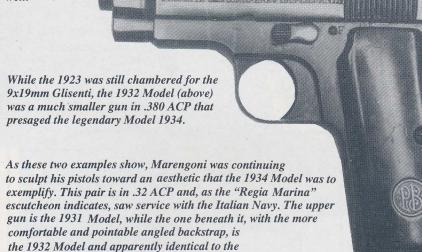




Further significant changes on the 1923 Model (above) were the incorporation of the disconnector as a vertical extension of the trigger bar, and a more rigid arrangement for mounting the barrel into the frame. Rails on the barrel lug engaged corresponding rails in the

frame forward of the magazine well.

formally adopted Model of 1935.





(.32) variant normally lacked the manual safety, and used the nose of the firing pin as an ejector, which made clearing a loaded round from the chamber an even more interesting procedure than it normally is.

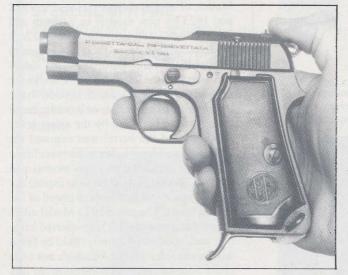
Adopted as an emergency measure, and looked down upon initially by the military establishment for its almost rustic lack of complication, the 1915 Beretta was a tremendous success and effectively displaced the Glisenti as the Italian service pistol. Production soon rose to 4,200 units a month, and Berettas have been the official Italian sidearm ever since. But not the 1915 Model, of course. It was replaced in 1922 and 1923 by new models in 7.65mm and 9mm Glisenti respectively. The 1922/23 models differed from their predecessors essentially in three particulars: the safety was moved to the left of the frame above the trigger; the barrel lug, which keyed into the frame from the magazine well, was secured from moving rearward by the safety lever crosspin; and the barrel was exposed for almost its full length, from the breechface to the foresight. The previous models had the tops of the slides cut away to expose the barrel from about half an inch ahead of the ejection port. The 9mm 1923 Model additionally had an exposed, ring-spurred hammer and, on some versions, could be fitted with a shoulder stock. Although not officially adopted, it is often encountered in a military version with pressed, sheet metal grip panels.

The next notable date in the chronology is 1931, which saw the introduction of a delightfully compact little .32 ACP which was immediately adopted by the Italian Royal Navy. Production was rather limited since the Model of 1931 was soon superseded by the Model of 1935, which continued in the same serial number range, and was almost identical but had a more rounded backstrap and weighed ten grammes more. The Model of 1935 was the sidearm of the Navy and Air Force for many years.

Visually identical, but resolutely non-interchangeable in most particulars, was the magnificent 9mm Model of 1934 adopted by the Army. Among the smallest, lightest, least complicated and most robust of military pistols, the Model 1934 was also unusual in being chambered in .380 ACP, or 9mm Corto, as the Italians called it. The 9mm Glisenti had always suffered the very real risk of a cartridge mix-up with the more common and much more powerful 9mm Parabellum. This was sufficiently disconcerting when it happened in the locked breech Glisenti pistol; in the blowback Berettas it was dangerous and in the much lighter 1934 Model, would have been decidedly more so, hence the change to the 9mm Corto (9 x 17.1mm) whose lighter bullet at substantially lower velocity (roughly 93 gr. at 950 fps compared to 124



On a power-to-bulk ratio, the 1934 was a handful of dynamite; it is not a really pleasant gun to shoot. By 1944, when this one was made, it was a troglodyte product, as Beretta manufacture had mostly moved into tunnels to escape Allied bombing. The quality of surface finish had begun to suffer, but it was still a well-built pistol.



The 1934 was an evolved design, robust, simple and elegant. The most complex elements were the coil spring and plunger in the trigger, which powered the trigger return, trigger bar and disconnector functions, and the linchpin axis flats which, borne against by the recoil spring guide rod, blocked the trigger when the thumb lever was set to manual safety, and released the barrel when it was set to disassemble.

1966

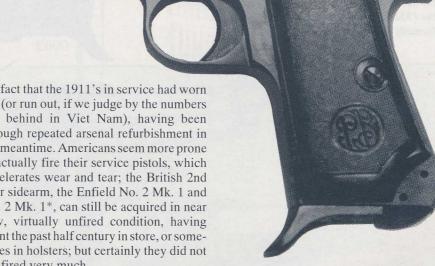
gr. at 1150 fps) offered very much lower breech pressures. And in view of the fact that 9mm Parabellum in military loads shoots through the torso in 100% of cases, one may wonder if the Italian Corto represented much of a sacrifice in stopping power.

Of course the Parabellum had a lot more range, at least theoretically. But handgunning reality is that the distance across a room or perhaps across a street is as far as one might be able to shoot accurately in combat, and in any event may be as far as one can see. And no one who has shot the 1934 Beretta is likely to argue that it is underpowered, at least for its size. On a weight/power or bulk/power ratio, the M1934 ranks very high indeed and was much liked both by those who were issued it and by those lucky enough to capture one.

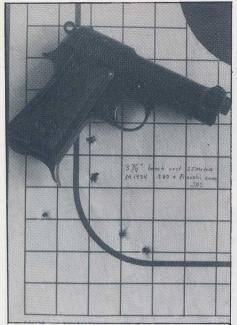
Still, the 9 x 19mm Parabellum emerged from the 2nd World War as free Europe's preferred handgun cartridge and the Browning GP35 became the sidearm act for the rest to follow. The Communist bloc retained the bottlenecked 7.62 x 25mm until eventually it was superseded by the 9 x 18mm Makarov, another top-end round for blowback mechanisms, but resolutely uninterchangeable with anything in the West. And the United States stayed with the legendary .45 Colt Auto for exactly threequarters of a century, before selecting the 9mm Beretta 92F as its replacement.

The motive behind the change 14 seems to have been, as much as anything, the fact that the 1911's in service had worn out (or run out, if we judge by the numbers left behind in Viet Nam), having been through repeated arsenal refurbishment in the meantime. Americans seem more prone to actually fire their service pistols, which accelerates wear and tear; the British 2nd War sidearm, the Enfield No. 2 Mk. 1 and No. 2 Mk. 1\*, can still be acquired in near new, virtually unfired condition, having spent the past half century in store, or sometimes in holsters; but certainly they did not get fired very much.

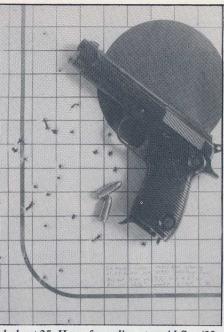
By the end of the 1940's, it was clear that Beretta could either embrace the Parabellum or forget the military and "heavy" police sidearm market, including that of Italy. Old Marengoni sat himself down to design his last gun, and Beretta's first locked breech pistol. Known as the Model 1951, later M951, and in civilian garb sometimes as the Brigadier, it was not



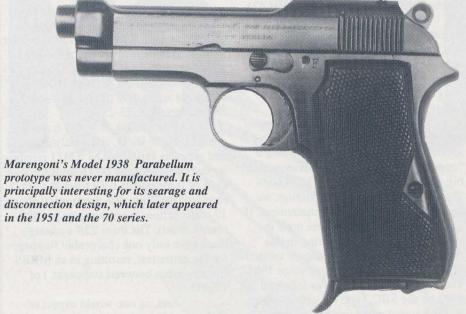
As befitted an old soldier, the Model 1934 never died, and seemed in no rush to fade away. It was replaced in military service by the 9mm Parabellum Model 1951, and a as a midframe blowback by the Model 70 in 1958. The example shown was manufactured in 1966.



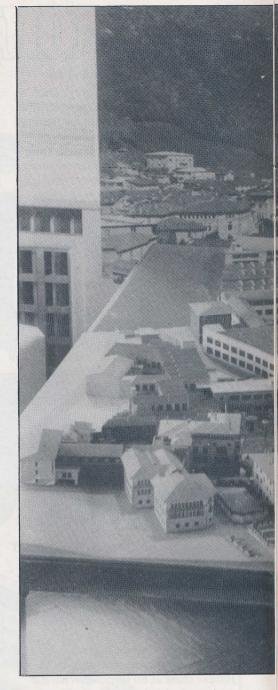
The 1934 was never a target pistol; about 4" at 25 meters was the best it wanted to do. The 1951, on the other hand, was a delight to shoot, often putting three out of five in one



hole at 25. Here, four clips at rapid fire (32 rd. at 25 meters, fired standing unsupported) have gone into a foot vertical by half a foot across. All but four rounds are in 7 1/2" vertical by 6" across.







The Val Trompia is a narrow valley which the Beretta works fill from wall to wall, with the river running up the centre. This tabletop model shows the extent of the firm in the

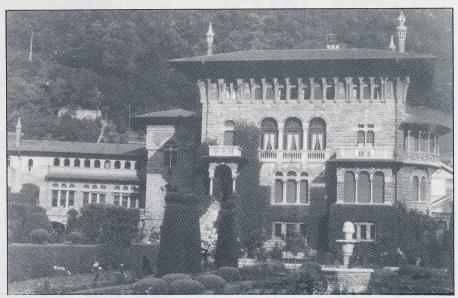
actually placed into volume production until 1957 due to problems with the light alloy frame initially envisioned. The technology was not up to the application, resulting in a tardy redesign to take in a steel frame.

Marengoni had hoped, at the outset, to avoid the complications of a locked breech. He had designed every Beretta autopistol, from the beginning, and had in fact built a blowback Parabellum in 1938. It was not up to the job. But if it were bigger? Marengoni built bigger prototypes in 1950, and decided that the Parabellum was, unavoidably, going to have to have a locked breech. He built an open-barrelled prototype using a cam unlocking, Browning type tipping barrel, but locking up into the slide

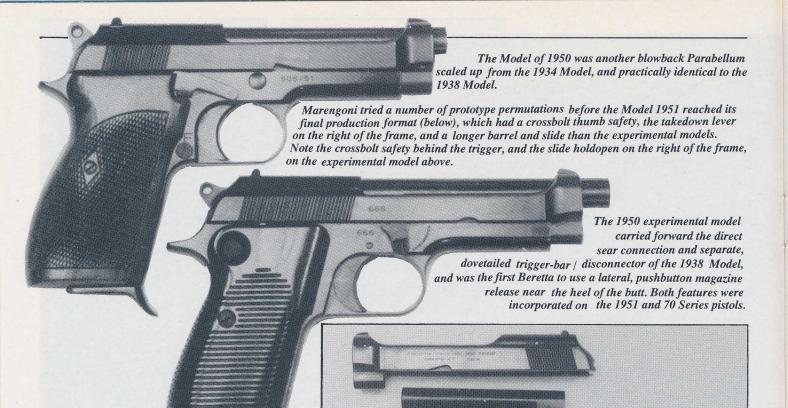


mid-1960's. Gardone is a gunmaking town, and in the background are the premises of Bernardelli and a host of other manufacturers.

sidewalls, since the slide had no roof to lock into. As long as he was going to use a lateral locking system anyway, in order to preserve the open-barrel architecture, Marengoni tried the Walther P.38 system of an axially recoiling barrel using a hinged locking block, and found it congenial. This was the system employed on the Model 1951, an elegant, easy handling pistol which enjoyed the signal distinction of adoption by both Israel and Egypt, and of seeing arduous service on both sides in the Middle East wars. It was also, of course, adopted by the Italian armed forces and Carabinieri as well, and had only one peculiar vice: a tendency sooner or later to crack the slide over the locking cuts, a shortcoming it shared



Living above the shop. This Renaissance-inspired mansion, surrounded by the workshops, has been Beretta's head office and the home of the Beretta family, since its construction early in this century.



with the significantly broader-beamed P.38 from which it had been derived.

This should not be overplayed. One does not think of the P.38 as the gun that broke slides any more than one thinks of the High Power as the chronic barrel breaker, which it was, to the extent that FN went to a two-piece construction largely so as to turn the grain structure of the lug 90° to the axis of the bore. As far as that goes, the 1911 breaks barrels as well, and the SIG P220 series cracks frames. These are facts, and indeed interesting ones, but there is no point ascribing them disproportionate importance.

One remembers the 1951 as a delightful gun to shoot, extraordinarily reliable and usually very accurate as well. And, as is often the case with Italian engineering, it had style and flair to an extraordinary degree. It was also unmistakably a Beretta. Curiously, it never gained the stature or recognition as a battle pistol which its two decades of desert combat during the offand-on Arab-Israeli wars should have earned it. But this was, if you like, a PR or marketing failure. The gun was good, and it would have surprised no one who had studied the Model 1951 to be told by a clairvoyant that it would evolve into one of the greatest fighting handguns of all time.

1951 prototype shows the P.38 locking system eventually adopted. Note the trigger bar, disconnector and takedown lever, all on the left of the frame, which were moved to the right side on the production guns.

