

J. Howard Mathews

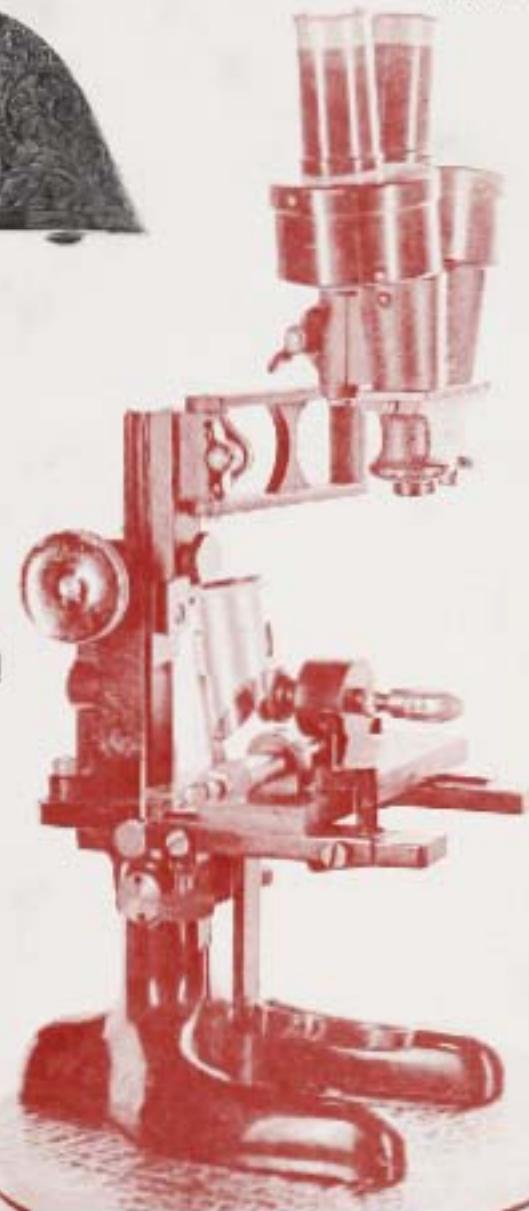
Firearms Identification

VOLUME III

Original photographs and other illustrations of hand guns. Data on rifling characteristics of hand guns and rifles

*Published Posthumously with the Editorial Assistance of
ALLAN E. WILIMOVSKY, Firearms Identification Specialist, Wisconsin
Department of Justice Crime Laboratory Bureau
Madison, Wisconsin*

Volume III of Three Volumes





The "real work" of this posthumously published third volume was all done by Dr. J. H. Mathews. All that was necessary at the time of his death was to mount the photographs and complete the editorial work of pulling the book together for publication.

The third volume contains additional data for many makes and models for which data on other specimens were given in Volume I. Also, much previously unavailable data on rifles is presented along with data for many handguns not before encountered. Photographs of many previously unphotographed handguns have been included as well as photographs of guns in partially disassembled condition giving a better view of their construction and operation.

In PART I of Volume III, tables are presented on rifling characteristics of automatic pistols, revolvers and nonautomatic pistols and rifles. As an aid to identification, material has been organized into tables, arranged by caliber, number of grooves and direction of twist.

Since, as the author pointed out, the firearms examiner may often be concerned with arms of older vintage, there is an extensive discussion in PART II of less well known American made hand guns from the period 1850 to 1910.

In Section 1 of PART III are found original photographs of automatic pistols, arranged by caliber. In Section 2 are disassembled views of many of the guns shown in Section 1.

PART IV contains original photographs of revolvers and nonautomatic pistols, arranged by caliber. Several illustrations of handguns from catalogs and other sources are provided in PART V. A large number of additional photographs of firing pin impressions on rim fire cartridges, generally .22 caliber, appear in PART VI. Finally, PART VII presents many photographs of trade marks and other identification marks found on handguns.

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Introduction

The gratifying sales reception of my two-volume treatise *Firearms Identification*, the excellent reviews it has had in this and foreign countries, and hundreds of flattering personal letters, many from total strangers, have encouraged me to continue my investigations and to present the results in this additional volume.

Since the publication of my treatise in 1962 many additional measurements of the rifling characteristics of hand guns have been made. Earlier studies demonstrated the desirability (or necessity) of making as many measurements of rifling characteristics as possible on the same make and model of firearm to ascertain whether uniformity for a given make and model may or may not be expected and also to detect changes in rifling characteristics which are sometimes deliberately made by the manufacturer. Consequently, in the tabulations in this volume, additional data will be found for many makes and models for which data on other specimens were given in Volume I. There are also data for many hand guns, not previously encountered, and for a considerable number of rifles, for which no data were given previously.

Many additional photographs of hand guns have been taken. These include many arms not previously

photographed. A large number have been photographed in a partially disassembled condition to give a better idea of their construction and operation. Such photographs are frequently of value in making the identification of the manufacturer. Variations in the same nominal model will be noted.

A very large number of additional photographs of firing pin impressions on rim fire cartridges appear in this volume. Unless otherwise stated, all of these are on .22 caliber ammunition.

The section of Volume II devoted to photographs of trade marks and other identification marks (Part VI) was found to be of interest; therefore a number of new photographs of such marks have been included in the present volume.

While it is true that the firearms examiner is more likely to be concerned with arms made in recent years, occasions do arise in which arms of considerably older vintage are encountered, and information concerning them is often not so readily available. Furthermore, there is a growing interest among collectors and other "gun men" in these older and less well known arms. For these reasons a sizeable section in this volume is devoted to notes on American made hand guns of approximately the last half of the last century.

Acknowledgment

My sincere thanks are due to the many individuals, too numerous to mention by name, who have brought or sent firearms to my laboratory for study. To them I owe much gratitude which I again wish to express.

I also again express my thanks to the Milwaukee Public Museum for the loan of a very large number of revolvers and pistols from the famous Nunne-macher Collection. Much valuable information was obtained from them and from the publications of the Museum.

I am greatly indebted to Charles E. Shomber for the loan of his large collection of "spur trigger" revolvers and pistols, and also of his complete files of material relating to these and other early hand guns.

I am especially indebted to Stanton O. Berg, who has furnished me with hundreds of fired rim-fire cases to photograph, and to Clark E. Kauffman, who furnished me sets of fired cases from all of the rim-fire arms in his large and unique collection.

Mr. Vaclav J. Krema has been extremely helpful

in supplying me with a large number of photographs of automatic pistols and revolvers, many of which are of makes and models that were inaccessible to me; consequently I am very grateful to him for his assistance.

I also express my appreciation for the loan of pistols from the fine collections of Clark E. Kauffman, John R. Carlson, Daniel M. Byrne, Ernest J. Lang, John Remling, and many, many others whose contributions from less extensive collections have been very gratefully received.

Through the generous cooperation which I have received for many years from the staff of the Wisconsin State Crime Laboratory I have had an opportunity to examine and measure the rifling characteristics of many hundreds of hand guns and rifles, to photograph many hand guns (assembled and partially disassembled), and to photograph firing pin impressions made on cases fired in hundreds of rim-fire hand guns and rifles.

J. H. M.

It is unfortunate that Dr. Mathews could not have lived to realize the publication of this third volume of his work. He died on April 15, 1970. The preparation of the completed manuscript for publication has been carried out by Dr. Mathews' family, with the very valuable assistance and counsel of Mr. Allan Wilimovsky.

THE FAMILY OF
DR. J. HOWARD MATHEWS
Madison, Wisconsin

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P A R T I

Measurements of rifling characteristics

Additional Measurements

In addition to the extensive tables of data for the measurements of the rifling characteristics of hand guns which are set forth in Volume I, a large number of similar measurements have subsequently been made in this laboratory, both on makes and models previously measured and particularly on a considerable number of makes and models not previously measured.

It is of course desirable to have as many measurements as possible for each make and model (a) to ascertain how uniform the rifling is from specimen to specimen and (b) to detect changes in rifling characteristics which the manufacturer has intentionally made. Many manufacturers do make such changes from time to time, and it is important that the examiner know about them. Some manufacturers have specifications for rifling which they

follow reasonably well, but others do not. Indeed, from the variations one frequently finds in arms produced by some manufacturers one wonders whether any such specifications exist!

Volume I contained no data for measurements made on rifles because relatively few such measurements had been made. In the meantime, many measurements on rifles have been accumulated, and these data are recorded here. (It must be noted here that these measurements made on rifles were made using the same techniques and instruments used for those made upon hand guns and described in detail in Volume I; therefore, only a limited portion of the barrel length could be measured. Where possible, measurements were taken from both ends of the barrel, but in many instances only the first several inches at the muzzle end could be reached.)

Firearms identification

Section I

Tables of rifling measurements on automatic pistols

TABLE 1
Rifling measurements on automatic pistols

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Caliber: .22									
Astra-Unceta y Cia., Guernica, Spain	Astra 2000	55538	L	9.3	6	.040	.2130	.2195	
	"	58545	L	9.4	6	.039	.2132	.2210	New gun
	"	58546	L	9.3	6	.033	.2128	.2200	
	"	66192	L	9.5	6	.034	.2122	.2200	
	"	70332	L	9.2	6	.034	.2128	.2196	
	"	73543	L	9.3	6	.034	.2130	.2200	
	"	73553	L	9.2	6	.039	.2130	.2207	
	"	76796	L	9.35	6	.039	.2125	.2195	
	"	77398	L	9.4	6	.038	.2132	.2196	New gun
	"	82729	L	9.45	6	.039	.2122	.2198	
	"	88117	L	10.1	6	.042	.2151	.2184	Mkd:CUB.
	"	88860	L	10.0	6	.041	.2152	.2186	"
	"	89009	L	9.8	6	.043	.2151	.2185	"
	"	71231	L	9.2	6	.037	.2126	.2195	
	"	121145	L	9.6	6	.061	.2141	.2180	Mkd: CUB. Unusual land width. Auxiliary barrel, slide, etc.
	Astra-4000	795677	R	10.0	6	.256	.2134	.2187	
Pietro Beretta, Gardone V. T. (Brescia), Italy	Mod. 948	C04042-N	R	14.0	6	.031	.2127	.2189	Gun dated 1951.
	"	93612-N	R	14.0	6	.030	.2140	.2202	Gun dated 1958.
	Mod. 1950	51136-cc	R	13.9	6	.031	.2132	.2186	Gun dated 1952.
	Mod. 950	56226 cc	R	14.0	6	.030	.2125	.2233	
	"	64849 cc	R	14.0	6	.034	.2130	.2190	Gun dated 1955.
	"	67872 cc	R	13.8	6	.030	.2128	.2193	
	"	78682 cc	R	14.6	6	.030	.2132	.2190	Gun dated 1958.
	"	87029 cc	R	14.5	6	.033	.2130	.2198	
	Mod. 950-B	C-15906	R	13.7	6	.020	.2131	.2207	Mkd: XVI TIPO FLOBERT.
	"	C-16058	R	13.8	6	.023	.2125	.2202	
	"	C-19967	R	13.7	6	.021	.2130	.2200	Mkd: MINX
	"	C-21675	R	14.3	6	.022	.2134	.2200	
	"	C-32822	R	13.9	6	.025	.2136	.2202	
	Mod. 71 "Jaguar"	77630	R	13.9	6	.022	.2132	.2205	
	Mod. 80	735	R	23.8	6	.034	.2173	.2228	
Vincenzo Bernardelli, Brescia, Italy	"Baby" Mod.	18596	R	6.1	6	.055	.2148	.2216	Gun made in 1945 Dated XXIII
Colt's Patent Firearms Mfg. Co., Hartford, Conn.	Pre-Woodsman	10964	L	14.3	6	.037	.2145	.2225	
	Woodsman	54774	L	14.5	6	.036	.2142	.2220	Name "Woodsman" added March, 1917 at Serial No. 30,000.
Echave, Arizmendi y Cia., S.A., (Trade Name ECHASA) Eibar, Spain	Pre-Woodsman	20445	L	14.1	6	.033	.2156	.2240	
	Ace	2667	L	14.0	6	.036	.2146	.2233	
	Service Ace	S M 649	L	14.2	6	.032	.2140	.2216	
	Challenger	4843-C	L	14.5	6	.040	.2132	.2216	
	"	32369-C	L	14.0	6	.038	.2130	.2212	
	"	63858-C	L	13.8	6	.037	.2133	.2220	
	Huntsman	118228-C	L	14.7	6	.040	.2150	.2213	
	M.A.B. GZ	10703	R	15.5	6	.044	.2130	.2200	
	"	19296	R	11.2	6	.060	.2112	.2220	
Bonifacio Echeverria, Eibar, Spain	STAR Mod. F	F-404436	R	12.6	6	.033	.2130	.2203	
Present name: STAR Bonifacio Echeverria S.A.)	"	F-452435	R	12.7	6	.039	.2122	.2202	
	"	F-462224	R	12.6	6	.039	.2121	.2200	
	"	F-464297	R	12.7	6	.040	.2127	.2194	
	"	F-472473	R	12.6	6	.039	.2129	.2201	
	"	F-480920	R	12.6	6	.039	.2124	.2200	
	STAR Mod. FR	FR-951508	R	12.7	6	.068	.2107	.2155	
	STAR-LANCER	726757	R	12.9	6	.038	.2119	.2183	

*By the term "groove diameter" is meant the distance

(1) from bottom of a groove to bottom of opposite groove, if bbl. has even number of grooves.

(2) from bottom of a groove to the top of the opposite land, if bbl. has odd number of grooves.

Additional measurements

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Erma Werke, Munchen Dachau, Germany	Erma EP.22 "	02970 42302	R R	15.9 14.8	6 6	.045 .041	.2172 .2163	.2224 .2225	
Fab. Nationale d'Armes de Guerre, Herstal, Belgium	Nomad	24589P3	R	16.1	6	.056	.2176	.2236	
Gabilondo y Cia., Elgoibar, Spain (Presently known as Llama Gabilondo v Cia., S.A., Vitoria (Alava), Spain	Llama Mod. XV Llama Mod. XVI Llama Mod. XVII	203192 293543 380066 284217	R R R	14.8 15.2 19.3 15.2	6 6 6 6	.056 .050 .045 .047	.2113 .2101 .2089 .2083	.2187 .2167 .2209 .2155	"Airlite" Mkd. Elgoibar Mkd. Vitoria
Soc. Italiana F.Ili Galesi, Collebeato (Brescia), Italy (Formerly Industria Armi Galesi)	Galesi Mod. 9 "	105911 108510	R R	6.65 9.8	6 6	.037 .038	.2035 .2112	.2123 .2192	
Hartford Arms & Equipment Co. Hartford, Conn.	Hartford	128244 138605 128244 3314	R R R	9.8 9.9 9.85 14.8	6 6 6 6	.038 .040 .038 .050	.2111 .2119 .2111 .2162	.2198 .2190 .2198 .2210	Gun dated 1943.
High Standard Mfg. Co., Hamden, Conn.	H-D Military "Removed H-E B " Sport King " 353831 " 511382 " 519024 " 519618 " 740960 Flite King " 435679 Dura-matic " 510460 " 1047273 Citation "	185419 87614 22366 42470 345513 511382 519024 519618 740960 434878 435679 462879 510460 1047273	R R R R R R R R R R R R R R R R R R R	14.0 14.0 13.9 13.8 14.0 14.1 15.2 16.0 16.0 14.0 23.15 25.3 16.5 16.0 16.1 15.7 14.0	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	.030 .028 .025 .033 .032 .023 .054 .052 .052 .053 .053 .050 .057 .055 .052 .054 .031	.2134 .2130 .2120 .2124 .2126 .2136 .2176 .2179 .2175 .2187 .2166 .2182 .2167 .2164 .2177 .2172 .2172	.2180 .2186 .2190 .2198 .2194 .2196 .2203 .2235 .2223 .2235 .2220 .2226 .2213 .2222 .2233 .2232 .2221	Note change in rifling.
Heckler & Koch, G.m.b.H., Oberndorf a N, Germany	"J. C. Higgins" Mod. 80 HK4	621818 10572	R R	16.0 13.4	6 6	.056 .026	.2187 .2139	.2234 .2213	Special barrel rifled by J. E. Clark, Shreveport, La. Made for Sears, Roebuck & Co. Barrel No. 101351 HK4 supplied with 4 barrels. .22, 6.35, 7.65 and 9 mm.
Hispano Argentina Fabrica de Automoviles, S.A., Buenos Aires, Argentine	Hafdasa	97626	L	15.1	6	.035	.2157	.2226	Ballester-Molina Pat.
Mre. D'Armes Automatiques Bayonne, Bayonne, France	Le Chasseur Mod. F.	4248 4705	R R	12.4 15.3	6 6	.050 .050	.2124 .2136	.2223 .2218	Dist. in U.S. by Winfield Arms Co. "
Mre. d'Armes des Pyrénées Hendaye, France	Mikros " "UNIQUE" M 52 " "J. C. Higgins Mod. 85" "UNIQUE" Mod. "L" "	555078 559864 477897 472275 517274 560281 569057 576655	R R L L R R R R	12.3 12.1 12.0 12.0 12.0 12.1 12.3 12.4	6 6 6 6 6 6 6 6	.063 .063 .062 .063 .062 .059 .058 .064	.2128 .2121 .2131 .2121 .2120	.2150 .2192 .2207 .2203 .2147 .2206 .2204 .2199	Sold by Sears, Roebuck & Co. An unused gun. Slide Mkd: armes "UNIQUE"
The Reising Arms Corp., Hartford, Conn. (Moved to New York City ca. 1922 and became The Reising Corp. Numbering of N.Y. made pistols starts at 10,000)	Reising Target Pistol	1280 " 3382 " 10092 " 11494	R R R R R R	15.6 15.3 14.9 15.0	6 6 6 6	.033 .029 .031 .037	.2168 .2151 .2146 .2156	.2249 .2231 .2216 .2236	Pat. May 16, 1916; Oct. 25, 1921.

Firearms identification

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Rigarmi, Brescia, Italy	Rino Galesi "	26795 29198	R R	9.3 9.1	6 6	.055 .056	.2017 .2025	.2055 .2110	Gun dated 1958. Name Rino Galesi was dropped.
Robar et Cie., Liège, Belgium	Mercury	1498	R	9.6	6	.027	.2160	.2216	Has characteristic of the 1920 Mod. Melior.
Smith & Wesson, Inc., Springfield, Mass.	Mod. 41	75919	R	15.1	6	.040	.2147	.2236	
Sturm, Ruger & Co., Southport, Conn.	Mod. 46	24083	R	15.1	6	.039	.2150	.2250	
	Ruger-Standard Mod.	3141	R	14.0	6	.038	.2156	.2233	
	"	21742	R	14.0	6	.055	.2140	.2203	
	"	60203	R	13.9	6	.044	.2150	.2220	
	"	98768	R	13.9	6	.046	.2145	.2210	
	"	10113	R	14.4	6	.040	.2166	.2214	
	"	104887	R	14.4	6	.042	.2166	.2215	
	"	110855	R	13.9	6	.043	.2146	.2210	
	"	128737	R	14.1	6	.040	.2169	.2223	
	"	129092	R	14.2	6	.050	.2165	.2217	
	"	132071	R	14.7	6	.041	.2151	.2213	
	"	136561	R	14.4	6	.040	.2165	.2221	
	"	136629	R	14.2	6	.046	.2161	.2220	
	"	182520	R	14.0	6	.052	.2165	.2217	
	"	205319	R	14.0	6	.050	.2157	.2217	
	"	227493	R	13.9	6	.048	.2165	.2219	
	Ruger-Mark I	307955	R	13.8	6	.045	.2157	.2217	Target pistol. "Bull" barrel.
Tallares Armas Lívianas Argentinas, Punta Alta, Argentine	T.A.L.A.	12697	L	16.0	6	.043	.2181	.2261	
Tanfoglio Giuseppe Fabbrica d'Armi, Magno Gardone V.T., (Brescia) Italy	Titan	A-29565	R	20.0	6	.045	.2076	.2184	Dated XXII
Tanfoglio & Sabotti, Brescia Italy	Sata "	1013 5242	R R	9.9 10.0	6 6	.030 .031	.2141 .2153	.2201 .2201	Gun dated 1959.
Armas Trejo, A.A., Zacatlan Pueblo, Mexico	Trejo-Tipo Rafaga "	1740 002	R	13.4 13.4	6 6	.039 .038	.2044 .2042	.2124 .2132	First model 2nd Model. Semi or Full automatic.
Carl Walther Waffenfabrik, Ulm/Do, West Germany	PP Sport Mod. TP	73261-C 200156	R R	15.1 10.0	6 6	.044 .035	.2145 .2154	.2223 .2237	Gun dated 1968 Gun dated 1967
Whitney Firearms Inc., New Haven, Conn.	Whitney Wolverine "	31398 32880	R	17.0 17.2	6 6	.057 .055	.2175 .2193	.2220 .2227	
Caliber: .25									
Astra-Unceta y Cia. S.A., Junior Colt Guernica, Spain		12771-CC	L	10.3	6	.050	.2472	.2523	Made for Colt Industries, Firearms Division, Hartford, Conn. Unused gun.
Colt's Pt. F.A. Mfg. Co., Hartford, Conn.	Pocket Mod. "	167756 306587	L L	16.4 16.0	6 6	.037 .034	.2434 .2435	.2546 .2551	
Hy Hunter F.A. Mfg. Co., Hollywood, Calif. (Importer)	"Stingray" "	02617 04210 05122	R R R	17.1 18.4 18.0	10 6 6	.031 .054 .053	.2520 .2510 .2510	.2580 .2574 .2583	Made in West Germany
Caliber: 6.35 mm.									
Domingo Acha, Erma, Spain	"Looking Glass" "	52397 92527	L L	10.4 11.1	6 6	.050 .058	.2462 .2480	.2554 .2530	
Francisco Arizmendi, Eibar, Spain	Roland	FA-62627	R	20.2	6	.046	.2471	.2551	
Astra-Unceta y Cia., Guernica, Spain	Astra-Mod. 200	687896	L	9.4	6	.032	.2456	.2516	Mkd: UNCETA Y CIA. S.A.
(Originally Esperanza and Unceta, in Eibar; later Unceta y Cia., in Guernica)	"	706615 725375 727180 730776 734928 737650	L L L L L L	9.4 9.7 9.5 9.5 9.55 9.6	6 6 6 6 6 6	.040 .049 .042 .041 .042 .040	.2453 .2473 .2458 .2469 .2462 .2407	.2510 .2518 .2507 .2509 .2518 .2504	"

Additional measurements

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Astra-Unceta y Cia.	Astra Mod. 200	738255	L	9.5	6	.043	.2463	.2519	"
	"	765453	L	9.6	6	.070	.2475	.2514	Sold in U.S. as the "FIRECAT."
	"	779290	L	9.6	6	.063	.2480	.2530	"
	"	861987	L	9.6	6	.060	.2481	.2530	"
	"Junior Colt"	864418	L	9.6	6	.060	.2480	.2516	Made for and sold by Colt's Pt. F. A. Mfg. Co.
	"	12771	L	10.3	6	.050	.2472	.2523	
	"	36135CC	L	9.6	6	.061	.2469	.2515	
Martin A. Bascaran, Eibar, Spain	Martian Commercial	13125	L	10.2	6	.041	.2451	.2549	
	"	Removed	L	9.9	6	.040	.2463	.2537	
	"	13310	L	10.5	6	.040	.2462	.2531	
Beistegui Hermanos, Eibar, Spain	"B.H."	15975	L	10.0	6	.036	.2459	.2579	
Pietro Beretta, Gardone V.T. (Brescia), Italy	Beretta Mod. 318	648974	R	10.5	6	.048	.2455	.2511	Mkd: PISTOL AUTOMATIC CAL. 6.35 Gun dated 1946.
	Beretta Mod. 418	62701-A	R	10.1	6	.040	.2470	.2521	
	"	79858-A	R	10.2	6	.041	.2472	.2529	Gun dated 1953.
	"	07443-C	R	10.1	6	.037	.2461	.2521	Gun dated 1956.
	"	25007-C	R	10.2	6	.042	.2462	.2520	Gun dated 1957.
	"Panther"	31641-C	R	10.2	6	.037	.2467	.2526	Gun dated 1958.
	Beretta "Bantam"	63382-A	R	10.1	6	.039	.2468	.2520	Gun dated 1952.
	"	74820-A	R	10.1	6	.035	.2465	.2522	Gun dated 1953.
	"	80958-A	R	10.1	6	.039	.2462	.2522	Gun dated 1953.
	"	85194-A	R	10.1	6	.037	.2466	.2522	Gun dated 1953.
	Beretta 950-B	B-16020	R	10.0	6	.030	.2466	.2535	
	"	B-27063	R	10.0	6	.031	.2467	.2533	Sold in U.S. as "Jet Fire"
Vincenzo Bernardelli, Gardone V.T. (Brescia), Italy	Pocket Model	22374	R	10.3	6	.046	.2409	.2528	Gun dated 1948.
	"	36216	R	10.2	6	.046	.2422	.2512	Gun dated 1950.
	"	45711	R	10.1	6	.056	.2421	.2533	Gun dated 1951.
	"	52023	R	10.1	6	.055	.2422	.2504	Gun dated 1952.
	"	79871	R	17.4	6	.036	.2432	.2564	Unusual rifling.
Bernedo y Cia., Eibar, Spain	"Pistole Automatique"	91946	R	10.0	6	.035	.2443	.2571	
Bohmische Waffenfabrik, Prague, Czechoslovakia	Czech Mod. 1922	2888	R	11.0	6	.047	.2463	.2565	
Gregorio Bolumburu, Eibar, Spain	Regina	5933	R	7.9	6	.024	.2488	.2562	
Česká Zbrojovka Narodní Podnik, Strakonice, Czechoslovakia	Mod. 1945	6732	R	9.8	6	.049	.2455	.2511	
	"	59955	R	7.9	6	.0031	.2453	.2565	Gun dated 1947.
	"	69287	R	7.9	6	.029	.2459	.2569	Gun dated 1948.
	"	70309	R	7.9	6	.034	.2460	.2577	Gun dated 1948.
	Z Aut. Pistole	189046	R	10.8	6	.041	.2467	.2586	Dated 1950. Formerly known as the Duo.
	"	221270	R	10.3	6	.030	.2435	.2535	
Charles Ph. Clement, Liege, Belgium	Clement Mod. 1903	10148	R	10.1	5	.036	.2457	.2520	
Deutsche Werke, A.G., Erfurt, Germany	Ortgies	19407	R	7.0	6	.029	.2434	.2531	
	"	36997	R	7.1	6	.034	.2441	.2513	
	"	112444	R	7.1	6	.033	.2442	.2531	
	"	117224	R	7.1	6	.032	.2447	.2543	
G. C. Dornheim, A.G. (Dealer) Suhl, Germany	Gecado	43916	R	21.3	6	.036	.2505	.2569	Unusual rifling twist
F. Dusek, Opočno, Czechoslovakia	DUO "	62507	R	10.7	6	.031	.2439	.2523	Gun dated 1943.
(German spelling Opotschno used during World War II)	"	97620	R	10.9	6	.043	.2466	.2570	Gun dated 1944.
Echave y Arizmendi, Eibar, Spain	"Bronco" Mod. 1918	179428	R	10.7	6	.033	.2460	.2568	Gun dated 1949.
Bonifacio Echeverria, Eibar, Spain	STAR-Mod. E	40064	L	10.8	6	.048	.2461	.2554	
Esperanza y Unceta, Eibar, Spain	1911 "Victoria"	3427E	L	10.3	6	.038	.2459	.2503	
(Later moved to Guernica. See Astra-Unceta)	506	R	11.8	6	.047	.2465	.2537		
Erquiaga, Muguruza y Cia., Eibar, Spain	Auto Pistol FIEL	None	R	10.0	6	.050	.2426	.2540	

Firearms identification

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Fab. Nationale d'Armes de Guerre, Herstal, Belgium	Browning Mod. 1906	624827	R	9.6	6	.038	.2449	.2530	
	"	985339	R	9.6	6	.040	.2444	.2534	
	Baby Browning	117994	R	9.85	6	.037	.2450	.2530	Mkd: Browning Arms Co., St. Louis, Mo.
	"	133457	R	9.5	6	.041	.2457	.2532	"
	"	148501	R	9.8	6	.040	.2453	.2533	"
	"	166341	R	9.7	6	.038	.2448	.2534	"
	"	167513	R	9.5	6	.038	.2449	.2540	"
	"	172916	R	9.5	6	.039	.2445	.2535	"
	"	177691	R	9.7	6	.041	.2445	.2535	"
	"	193165	R	9.6	6	.040	.2447	.2533	"
	"	196328	R	9.5	6	.038	.2452	.2537	"
	"	206265	R	9.7	6	.041	.2447	.2539	"
	"	220369	R	9.7	6	.039	.2448	.2528	"
Fegyvergyar (Femaru Fegyver és Gépgyár R.T.) Budapest, Hungary	Liliput	416726	R	9.85	4	.061	.2431	.2541	
	Mod. 9	165111	R	10.2	6	.056	.2454	.2534	Gun dated 1953.
	"	170020	R	11.0	6	.061	.2442	.2523	Gun dated 1953.
	"	191058	R	6.15	6	.056	.2450	.2533	Gun dated 1957. Unusual twist.
	"	194952	R	9.9	6	.041	.2438	.2550	Gun dated 1957.
	"	200885	R	9.9	6	.042	.2442	.2542	Gun dated 1957.
Industria Armi Galesi Brescia, Italy	311627	R	9.8	6	.042	.2435	.2534	Gun dated 1958.	
	313394	R	9.7	6	.045	.2433	.2499	Gun dated 1958.	
	321835	R	9.8	6	.041	.2432	.2547	Mkd: XV	
	323597	R	9.8	6	.040	.2433	.2548	Mkd: XVI	
	336523	R	9.8	6	.055	.2454	.2546	Mkd: XVI	
	355315	R	9.8	6	.050	.2451	.2547	Mkd: XVIII	
	385187	R	9.8	6	.056	.2454	.2536	Mkd: XX	
	481556	R	9.9	6	.055	.2445	.2546	Mkd: XXIV	
C. G. Haenel, Suhl, Germany	Schmeisser (1st model)	45771	R	9.6	4	.065	.2455	.2526	
Hawes Firearms Co., Los Angeles, Calif. (Dealer)	"Hawes" Auto	98774	R	8.65	8	.054	.2450	.2514	Also sold in the U.S. as the "FALCON," "PIC," "GECADO."
Th. Kommer, Zella-Mehlis, Germany	Kommer II	19	R	10.0	4	.071	.2456	.2557	
Fr. Langenhan, Zella-Mehlis, Germany	Langenhan Mod. II	79	R	9.5	4	.070	.2403	.2521	
	"	10834	R	9.4	6	.039	.2396	.2512	
	Removed		R	9.5	4	.070	.2403	.2521	
Akt. Ges Lignose Berlin, Abteilung Suhl, Suhl, Germany	Langenhan Mod. III	26335	R	9.4	4	.081	.2432	.2526	
Mann Werke, Suhl, Germany	Lignose Mod. 2	9681	R	9.6	6	.031	.2443	.2506	
Mre. d'Armes Automatiques Bayonne, Bayonne, France	Lignose Mod. 2A	51489	R	9.7	6	.033	.2414	.2496	
Mre. Francaise d'Armes et Cycles de St. Etienne, St. Etienne, France	Lignose Mod. 3A	52514	R	9.7	6	.032	.2432	.2514	
Waffenfabrik Mauser, Oberndorf a N, Germany	Mann. Pocket Mod.	2421-20	R	9.6	6	.039	.2446	.2543	
Anc. Etablissements Pieper, Herstal, Belgium	M.A.B. Mod. B	25834	R	12.3	6	.046	.2457	.2539	
Pretoria Arms Co., Pretoria, So. Africa	M.A.B. Mod. E	2390	R	12.3	6	.045	.2452	.2538	
Mre. d'Armes des Pyrénées, Hendaye, France	Pocket Mod. "Le Francais"	4771	R	10.7	6	.034	.2450	.2514	
	"	63766	R	18.0	6	.028	.2443	.2517	Unusual twist.
Anc. Etablissements Pieper, Herstal, Belgium	Pocket Mod. 1910	6798	R	7.3	6	.049	.2456	.2514	
	"	243946	R	7.2	6	.045	.2462	.2512	
	W.P.T. Mod. II	63384	R	7.0	6	.044	.2453	.2543	
	"	271649	R	7.1	6	.035	.2446	.2530	
Anc. Etablissements Pieper, Herstal, Belgium	Pocket Mod. 1934	426578	R	7.2	6	.050	.2462	.2526	
Pretoria Arms Co., Pretoria, So. Africa	Pocket Pistol	4993	L	10.6	6	.024	.2460	.2506	
	Bayard Mod. 1912	33306	L	10.0	6	.020	.2393	.2496	
Mre. d'Armes des Pyrénées, Hendaye, France	PAF "JUNIOR"	A-1569	L	8.4	6	.056	.2430	.2507	Firm out of business
	"	A-6149	L	16.0	6	.056	.2437	.2486	
	"	A-7908	L	10.0	6	.059	.2423	.2495	
	"MIKROS" Mod. "K"	593810	R	12.6	6	.057	.2467	.2516	Mkd: Armes "UNIQUE"

Additional measurements

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Reck Sportwaffenfabrik, Lauf/Pegnitz, West Germany	La Fury 8 Reck P8	51548 103157 118210	R R R	10.1 10.0 10.6	6 6 6	.040 .038 .042	.2435 .2435 .2490	.2522 .2523 .2566	Same as Reck P8.
Rigarmi, Brescia, Italy	Rino Galesi "Rigarmi"	41422 51719	R	11.2 9.9	6 6	.058 .052	.2479 .2500	.2527 .2561	Gun dated 1958. Mkd: XVI. Name Rino Galesi dropped. Mkd: XVII
Robar & DeKerkhove, Liège, Belgium	Melior Mod. 1920	52608	R	9.85 9.85	6 6	.030	.2421	.2558 .2546	Also called "New Model"
Ruby Arms Co., Elgoibar, Spain	"Ruby"	5534	L	10.6	6	.047	.2444	.2522	"Ruby Arms Co." actually Gabilondo
Santiago Salaberrin, Ermua, Spain	"Protector"	20332	R	9.7	6	.038	.2458	.2510	Probably by Salaberrin.
Soc. Espanola de Armas y Municiones, Eibar, Spain	S.E.A.M.	103105 28391	R	9.6 10.6	6 6	.044 .062	.2456 .2475	.2546 .2521	
Soc. Francaise d'Armes de St. Etienne, St. Etienne, France	"Automatique Francaise"	56	R	10.2	6	.029	.2486	.2556	
Tanfoglio Giuseppe, Magno Gardone V.T., (Brescia), Italy	Titan	A-11473	R	21.6	6	.060	.2460	.2539	Dated XXII
	"	A-42267	R	18.4	6	.052	.2402	.2545	Dated XXIII
	"	43403	R	15.5	6	.054	.2530	.2535	
	"	A-60018	R	21.7	6	.053	.2439	.2530	Dated XXIII
Tomas de Urizar y cia., Eibar, Spain	"Princeps" Pat.	13378	R	5.75	6	.045	.2490	.2552	Distributed by Fab. d'Armes de Grande Precision, Eibar.
Tulski Oruzheinyi Zavod, Tula, Russia	Tulski Korovin	166278	R	7.2	6	.032	.2444	.2549	
Arsenal Vienna, Vienna, Austria	Steyr	9891	R	10.6	6	.052	.2470	.2547	
Waffenfabrik Walther, Zella-Mehlis, Germany	Mod. 1	83680	R	9.5	4	.070	.2444	.2526	
	Mod. 2	22477	R	8.8	4	.027	.2442	.2518	
	Mod. 5	687027	R	9.8	6	.027	.2453	.2536	
	Mod. 8	399756	R	9.5	6	.018	.2455	.2554	Has internal extractor and disassembly button.
	"	402691	R	9.4	6	.017	.2482	.2567	"
	"	455743	R	9.65	6	.017	.2505	.2593	Has external extractor and disassembly button.
	"	727062	R	9.35	6	.037	.2453	.2529	Has external extractor and no disassembly button.
	"	741454	R	9.45	6	.041	.2460	.2531	
Webley & Scott, Ltd., Birmingham, England	Pocket auto	111441	R	10.3	6	.032	.2463	.2563	
Wiener Waffenfabrik, Vienna, Austria	Little Tom	27052	R	14.4	6	.054	.2471	.2587	
E. Zehner, Suhl, Germany	"Zehna"	8740	R	8.2	4	.068	.2459	.2543	
Caliber: .30									
J. Kimball Arms Co., Detroit, Mich.	"30 Carbine"	205	R	12.0	8	.033	.2996	.3086	Manufacture discontinued.
Caliber: 7.62 mm.									
Russian Arsenal (Probably Tula)	Tokarev	2882	R	9.5	4	.080	.3023	.3133	Dated 1933
Reportedly made in China for export to Egypt.	"	34161	R	9.5	4	.080	.3020	.3141	Dated 1935
Ceska Zbrojovka, Strakonice, Czechoslovakia	Tokarev Mod. 20	17056	R	9.4	4	.081	.3020	.3140	No name or other identifying mark.
Caliber: 7.63 mm.									
Bonifacio Echeverria, Eibar, Spain	STAR Mod. A	A 7296	R	14.9	6	.041	.3015	.3097	
Gazteflaga, Trocaola y Ibarzabal, Eibar, Spain	Super Destroyer	A2924	R	10.6	6	.049	.3028	.3090	Ceased production in 1936.
Waffenfabrik Mauser, Oberndorf a N, Germany	Mod. 712	Removed	R	7.9	6	.040	.3014	.3098	Full or semiautomatic. Rear sight adjustable to 1000 meters.
Waffenfabrik Steyr, Steyr, Austria	Mannlicher Mod. 1905	2699	R	9.9	4	.090	.3021	.3151	
Unceta y Cia., Guernica, Spain	"	3013	R	9.9	4	.093	.3040	.3164	
	Astra Mod. 900	27815	R	10.1	6	.047	.3020	.3074	

Firearms identification

Additional measurements

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Deutsche Waffen u. Munitionsfabriken, Berlin, Germany	Luger Mod. 1908	86135 3927-p	R R	9.6 9.9	4 4	.111 .110	.3035 .3007	.3125 .3111	Pre-World War I
Deutsche Werke, Erfurt, Germany	Ortgies	61680 131743 142193 154651 223199 242734	R R R R R R	8.0 7.95 7.9 7.9 7.9 7.9	6 6 6 6 6 6	.029 .031 .030 .032 .028 .031	.3026 .3031 .3024 .3018 .3020 .3027	.3146 .3148 .3141 .3134 .3130 .3125	Has safety button. No safety button. " " " "
East German Unknown	Copy of Walther Mod. PP	04537	R	9.95	6	.050	.3015	.3097	
Echave y Arizmendi, Eibar, Spain	"Bronco" Mod. 1918	10832	L	10.3	6	.053	.3017	.3117	
Echave, Arizmendi y Cia. Mod. GZ (Trade name ECHASA EIBAR), Eibar, Spain	23553 35627	R R	15.5 19.5	6	.055 .061	.3012 .3014	.3106 .3096	Mkd: DICKSON SPECIAL AGENT.	
Hijos de A. Echeverria, Eibar, Spain	"RUBY" Type	36380 62928	R L	17.8 10.3	6	.064 .048	.3007 .3012	.3107 .3102	Made during World War I
Bonifacio Echeverria, Eibar, Spain	Izarra STAR-Mod. I	32154 0294 61164	L R R	10.3 10.5 10.4	6 6 6	.050 .030 .032	.3013 .3008 .3016	.3098 .3084 .3102	A variant of Mod. I. Erroneously marked STAR CAL 9 M M (.380)
Esperanza y Unceta, Guernica, Spain	STAR Mod. H STAR Mod. SI Astra Mod. 1915	152738 389789 29327	R R L	10.4 12.7 9.55	6 6 6	.087 .059 .047	.3004 .3026 .3011	.3089 .3091 .3101	
Fab. Nationale d'Armes de Guerre, Herstal, Belgium	Browning Mod. 1910	43282 (166)	R R	9.55 9.7	6 6	.032 .031	.3014 .3016	.3117 .3094	Has Portuguese Naval marking. No. 166 probably a contract number.
Fegyvergyar, Budapest, Hungary	Frommer 1910	7000 8347	R R	10.0 9.9	4 4	.113 .111	.3017 .3015	.3133 .3155	
	"Pistole Mod. 37"	C-115629	R	7.9	6	.040	.3021	.3110	Has commercial markings.
	Frommer BABY	26620	R	10.1	4	.106	.3019	.3129	
	Frommer STOP	1896	R	9.5	4	.114	.3014	.3145	
	Copy of Walther Mod. PP	BB12865	R	9.1	6	.042	.3024	.3101	Mkd: XXIII on frame.
Gabilondo y Cia., Elgoibar, Spain	Plus Ultra	16139	R	12.0	6	.056	.3022	.3096	20 cartridge magazine
	Llama Mod. X	82292 82918	R R	12.0 12.0	6 6	.040 .047	.3033 .3028	.3122 .3076	
Gabilondos y Urresti, Elgoibar, Spain	Llama Mod. X-A	149040	R	11.9	6	.042	.3040	.3094	"Llama Especial"
Industria Armi Galesi, Gardone V.T. (Brescia), Italy (Presently known as Soc. Ital. Flli Galesi)	Mod. 9	203267 203397	R R	9.85 9.9	6 6	.056 .056	.3012 .3013	.3098 .3100	Gun dated 1958. Gun dated 1958.
Gustloff Werke, Suhl, Germany	Pocket Auto	1204	R	10.0	6	.063	.3015	.3123	
Fab. d'Armes de Guerre, Haute Precision Armand Gavage, Liege, Belgium	Gavage	2228	R	9.8	6	.036	.3015	.3047	
Isidore Gaztañaga, Eibar, Spain	"Indian"	8141	L	12.2	6	.046	.3004	.3095	Same as "Destroyer."
H. M. Gering & Co., Arnstadt, Germany	Leonhardt	72367	R	9.5	6	.043	.3031	.3163	
Hege Waffen, (Exporter) West Germany	"HEGE"	BB38003	R	10.0	6	.044	.3028	.3098	Unauthorized slightly modified copy of Walther Mod. PP. Made by Fegyvergyar in Budapest.

Firearms identification

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Heckler & Koch, G.m.b.H., Oberndorf, a/N, Germany	Mod. HK4	10572	R	8	6	.038	.3026	.3099	Barrel No. 400125
Jager & Co., Suhl, Germany	Jager	5530	R	8.8	4	.050	.3029	.3148	
Kohout & Spol., Kynde, Czechoslovakia	"Mars"	9547	R	10.5	6	.047	.3016	.3100	Gun dated 1941.
Fr. Langenhan, Zella-Mehlis, Germany	F.L. Selbstlader	2812 10194	R R	9.5 9.6	4 4	.072 .059	.3036 .3038	.3176 .3156	Has open ctge. port.
Mre. d'Armes Le Page, Liége, Belgium	Pocket Pistol	14642	L	9.6	6	.043	.3084	.3156	
Waffenfabrik Kommer, Zella-Mehlis, Germany	Kommer Mod. 4	10069	R	9.65	4	.050	.3004	.3123	Does not have ctge. indicator pin.
	"	15611	R	9.7	4	.048	.3020	.3105	Has cartridge indicator pin.
Mann Werke, Suhl, Germany	Mann Pocket Mod.	51797	R	9.6	4	.047	.3030	.3122	
Waffenfabrik Mauser, Oberndorf a/N, Germany	Pocket 1914 Type	323	R	7.85	6	.039	.3025	.3110	From 1st run of this model. Now referred to as the "Humpback Model."
(Name changed to Mauser-Werke in 1922)	"	197515	R	7.9	6	.041	.3016	.3082	
	"	225593	R	7.9	6	.051	.3031	.3097	
	"	245301	R	7.9	6	.045	.3022	.3086	
	"	316233	R	8.0	6	.038	.3029	.3093	
	"	359572	R	7.9	6	.045	.3024	.3078	Mkd: POLITI Nr. 4700 (Norwegian Police)
	"	493254	R	8.0	6	.043	.3015	.3089	
	"	513330	R	7.9	6	.053	.3022	.3092	
	"	611522	R	7.9	6	.041	.3014	.3094	Has German Accept. Mks.
	Pocket Mod. HSc	720522	R	7.9	6	.044	.3025	.3095	
	"	735669	R	7.8	6	.039	.3021	.3096	
	"	758488	R	7.8	6	.041	.3022	.3096	
	"	859012	R	7.9	6	.050	.3026	.3094	
	"	948135	R	9.0	6	.047	.3030	.3097	Unusual rifling twist
August Menz, Suhl, Germany	Menz Mod. III	019	R	9.5	6	.040	.3023	.3111	
Metallwaren, Waffen u. Maschinenfabriken, A.G., Budapest, Hungary	Menz Mod. 1934	492983	R	7.9	6	.039	.3023	.3088	Gun dated 1941.
Oesterr. Waffenfabriks, Ges., Steyr, Austria	Mod. 37	5175	R	7.9	6	.044	.3024	.3091	Gun dated 1941.
	"	23055	R	7.9	6	.042	.3020	.3100	Gun dated 1943.
	"	50023	R	7.9	6	.037	.3022	.3090	Gun dated 1943.
	"	56927	R	7.9	6	.049	.3033	.3091	Gun dated 1943.
Anc. Etablissements Pieper, Herstal, Belgium	Steyr Mod. 1908	3995	R	9.9	6	.036	.3023	.3151	
	"	31237	R	9.8	6	.038	.3023	.3139	
	"	39553	R	9.85	6	.030	.3029	.3145	
N. Pieper, Herstal, Belgium	Bayard Pocket Model 1909	134711	L	12.7	6	.036	.3033	.3093	
	"	259857	L	10.1	6	.039	.3025	.3093	
Mre. d'Armes des Pyrénées, Hendaye, France	N. Pieper Pocket Mod. B-1583	R	9.5	6	.036	.3034	.3136		
	"UNIQUE" Cat. No.17	412227	L	12.3	6	.064	.3019	.3105	Model not indicated on gun.
	Military Mod.	39543	L	12.1	6	.051	.3016	.3113	War production, under German supervision.
	"	107919	L	12.4	6	.043	.3017	.3098	Post W.W. II production.
	"	109581	L	12.0	6	.045	.3025	.3098	Mkd: RF (Republic Française)
	"	113401	L	12.0	6	.050	.3020	.3100	"
Retolaza Hermanos, Eibar, Spain	Paramount	27113	L	10.3	6	.045	.3014	.3097	
Rheinische Waffen u. Maschinenfabrik, Sommerda, Germany	Dreyse	44040	L	10.3	6	.039	.2994	.3115	
Rheinsche Metallwaren u. Rheinmatall	"	9179	R	17.1	4	.040	.3025	.3132	Gun dated 1920.
Rigarmi, Brescia, Italy	Rigarmi	216550	R	16.7	4	.043	.3020	.3109	
Robar et DeKerkhove, Liége, Belgium	Melior Old Mod.	261443	R	16.65	4	.033	.3018	.3096	
	Melior Mod. 1920	12831	R	9.6	6	.075	.3070	.3140	New, unused gun.
		22774	R	9.7	5	.046	.3028	.3100	Also known as "Jieffeco" Sold by Jannsen et Fils.
Robar et Cie., (Formerly Robar et DeKerkhove) Liége, Belgium	Melior Mod. 1920	47720	R	9.6	5	.056	.2990	.3045	Also known as the "New Model"

Additional measurements

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Mre. d'Armes de St. Etienne, St. Etienne, France	French Service Pistol-1935S	F-2703	R	9.9	4	.060	.3014	.3121	
J. P. Sauer u. Sohn, Suhl, Germany	Roth-Sauer	384 A	R	17.2	6	.036	.3073	.3123	
	Roth-Sauer	B-712	R	17.1	6	.024	.3054	.3112	
	1st Model (1913)	138561	R	14.4	6	.033	.3021	.3107	
	"	161088	R	14.3	6	.033	.3011	.3091	
	"	201088	R	14.4	6	.033	.3025	.3113	
	Mod. 1930	199608	R	14.2	6	.051	.3022	.3110	
	Mod. 38(H)	260716	R	9.5	6	.047	.3010	.3110	
	"	334936	R	9.5	4	.056	.3020	.3104	Has German acceptance marks.
	"	350522	R	9.45	4	.061	.3021	.3084	"
	"	353571	R	9.6	4	.060	.3016	.3104	"
	"	446072	R	9.5	4	.064	.3016	.3102	"
	"	509600	R	9.4	4	.065	.3025	.3111	
A. W. Schwarzlose, G.m.b.H., Berlin, Germany	Schwarzlose Mod. 1908	1148	R	7.9	4	.106	.2957	.3028	
	"	1234	R	7.9	4	.110	.2957	.3035	
	"	4006	R	8.0	4	.112	.2948	.3028	
	"	6489	R	7.9	4	.097	.2960	.3034	
Smith and Wesson, Springfield, Mass.	.32 Auto	664	R	12.0	6	.054	.3032	.3123	
Societe Alsacienne des Constructions Mecaniques, Cholet, France	French Service Pistol 1935A	2283-A	R	9.9	4	.081	.3021	.3139	
	"	4994	R	9.9	4	.074	.3017	.3137	German acceptance mark.
	"	2589-A	R	9.9	4	.081	.3020	.3130	
Waffenfabrik Steyr, Steyr, Austria	Mannlicher Mod. 1905	4619	R	10.1	4	.093	.3042	.3160	
Voino Tekhnicheski Zavod, Kragujevic, Yugoslavia		1005	L	10.2	6	.052	.3015	.3112	Similar to Spanish "Eibar Type."
Steyr-Daimler-Puch, Steyr, Austria	Mod. SP	898	R	9.95	6	.042	.3017	.3108	
Franz Stock, Berlin, Germany	Stock	31962	R	9.5	4	.062	.3003	.3135	
Carl Walther Waffenfabrik, Zella St. Blasii, Germany	Mod. 4	48953	R	8.8	4	.049	.3002	.3123	Early issue, with exposed trigger bar.
	"	77088	R	10.0	4	.076	.3012	.3118	
	"	263955	R	9.7	6	.034	.3022	.3124	Later issue, with concealed trigger bar.
Carl Walther Waffenfabrik, Zella-Mehlis, Germany (Name of city changed in 1919)	Mod. PP	204287-P	R	10.0	6	.053	.3021	.3110	
	"	225534-P	R	10.3	6	.063	.3022	.3102	
	"	234555-P	R	10.0	6	.055	.3021	.3105	
	"	284133-P	R	10.0	6	.055	.3022	.3114	
	"	359282-P	R	10.0	6	.056	.3020	.3097	
M. Zulaica y Cia., Eibar, Spain	Royal	45157	R	12.0	6	.071	.3034	.3110	Some specimens have left hand twist.
Caliber: 7.8 mm									
Theodor Bergmann, Gaggenau, Germany	Bergmann--Mod. 1897 (No. 5)	156	R	9.5	4	.045	.3005	.3080	
Caliber: .35 cal.									
Smith & Wesson, Springfield, Mass.	Mod. 1913 Type II	5382	R	12.0	6	.061	.3131	.3231	Used ".35 S&W" cartridge.
	"	7709	R	12.0	6	.062	.3101	.3221	"
Caliber: 8mm									
Kokura Arsenal, Kokura, Japan	Nambu-1904 Type	8153	R	11.0	6	.037	.3155	.3267	Has grip safety.
	Nambu-1914 Type	1929	R	12.5	6	.028	.3164	.3285	Early issue.
	Nambu-1914(1925) Type	15656	R	11.3	6	.044	.3161	.3265	Gun dated Oct. 1930.
Nagoya Arsenal, Nagoya, Japan	Mod. 94 (1934)	8384	R	11.0	6	.031	.3162	.3282	Gun dated May 1939.
	"	26277	R	11.05	6	.035	.3154	.3272	Gun dated June 1943.
	"	50309	R	11.0	6	.041	.3157	.3263	Gun dated June 1944.
	"	97861	R	11.0	6	.042	.3156	.3275	Gun dated Nov., 1943.
	"	11488	R	11.1	6	.045	.3160	.3267	Gun dated Jan., 1944 (Round bolt nut).
Waffenfabrik Steyr, Steyr, Austria	Roth-Steyr	3824	R	9.9	4	.101	.3139	.3307	Has Vienna proof mark.
	"	4695	R	9.9	4	.100	.3131	.3303	
Caliber: .38 and .380									
Colt's Pt. F. A. Mfg. Co., Hartford, Conn.	1902 Mod.	8583	L	17.6	6	.036	.3490	.3598	
	"	12526	L	17.7	6	.040	.3488	.3572	
	"	14392	L	17.2	6	.031	.3508	.3568	

Firearms identification

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Colt's Pt. F. A. Mfg. Co.	1903 Pocket Mod.	886	L	15.2	6	.055	.3480	.3563	
	"	45343	L	16.3	6	.035	.3484	.3560	
	"	125978	L	16.1	6	.058	.3480	.3571	
	Super .38	73176	L	16.1	6	.056	.3480	.3565	
	"	111223	L	16.1	6	.056	.3489	.3588	New, unused gun.
	"	176460	L	16.1	6	.060	.3496	.3554	
	Officers Model Match	921286	L	13.85	6	.059	.3465	.3544	.38 Special.
Remington Arms-UMC Co., Ilion, N. Y.	National Match PA-M51	2634MR PA-51817	L R	13.8 16.1	6 7	.060 .038	.3467 .3489	.3544 .3531	.380 cartridge
Savage Arms Co., Utica, N. Y.	Mod. 1907-19	14521-B	R	16.1	6	.046	.3493	.3557	.380 cartridge
	Mod. 1915	None	R	12.1	6	.053	.3490	.3565	"
Webley & Scott, Ltd., London & Birmingham, England	Webley & Scott Hammer Mod.	62918	R	10.0	6	.051	.3505	.3605	Hammerless. Has grip safety .38 cal.
	"	111428	R	10.2	7	.041	.3519	.3657	Hammerless. No grip safety. Mkd. .380 cal.
Caliber: 9 mm.									
Hijos de Calixto Arrizabalaga, Eibar, Spain	JO-LO-AR	331	R	19.5	6	.050	.3508	.3650	Gun dated 1924.
	"	4829	R	20.3	6	.058	.3505	.3595	
	"	20209	R	10.9	6	.052	.3501	.3593	
Astra-Unceta y Cia. Guernica, Spain (Later known as Unceta y Cia.)	Astra-M 300	510144	R	10.2	6	.053	.3492	.3607	Mkd. Unceta y Cia.
	"	530849	R	9.3	6	.056	.3502	.3626	
	"	556476	R	9.4	6	.052	.3500	.3596	Has German acceptance mark.
	"	588587	R	9.4	6	.051	.3501	.3599	
	Astra M 400	3433	R	9.4	6	.061	.3489	.3602	Has German acceptance mark.
	"	8681	R	9.4	6	.050	.3482	.3587	"
	"	14749	R	10.4	6	.051	.3490	.3585	Chambered for German 08 cartridge.
Pietro Beretta, Gardone V.T. (Brescia), Italy	Mod. 1915	9975	R	9.4	6	.050	.3476	.3581	Mkd: Unceta y Cia.
	Mod. 1934	35460	R	9.6	6	.059	.3483	.3592	9 mm Parabellum
	Astra M 3000	677170	R	9.6	6	.051	.3517	.3619	Mkd: Unceta y Cia.
	Astra-M 4000	795677	R	9.6	6	.054	.3500	.3601	
		15555	R	10.0	6	.051	.3536	.3620	
		524494	R	10.0	6	.040	.3482	.3582	Gun dated 1936.
		631479	R	13.0	6	.048	.3492	.3596	Gun dated 1937.
	"	742977	R	13.0	6	.050	.3493	.3583	Gun dated 1939.
	"	844024	R	10.0	6	.046	.3485	.3590	Gun dated 1940.
	"	914004	R	10.0	6	.056	.3486	.3584	Gun dated 1941.
	"	961464	R	9.9	6	.052	.3502	.3580	Gun dated 1942.
	"	F-67413	R	9.9	6	.045	.3486	.3590	Gun dated 1942.
	"	983853	R	9.9	6	.050	.3497	.3583	Gun dated 1942.
	"	G-33595	R	9.8	6	.051	.3492	.3598	No name, date, or proof marks.
	"	990749	R	9.9	6	.044	.3490	.3587	Gun dated 1942.
Vincenzo Bernardelli Gardone V.T. (Brescia), Italy	Mod. 1950	1003/50	R	10.0	6	.048	.3490	.3588	Gun dated 1950.
	Mod. 1951	30660	R	9.9	6	.044	.3488	.3566	
	Mod. 60	5816	R	17.8	6	.051	.3513	.3610	Mkd: XXII
Ceska st. Zbrojovka Brno, Brno, Czechoslovakia (Brescia), Italy	9mm N	2297	R	9.9	6	.053	.3464	.3558	Designed by Nickl.
	"	7764	R	9.9	6	.064	.3467	.3568	Gun not dated.
	"	16582	R	9.9	6	.060	.3461	.3552	Gun dated 1923.
	"	19856	R	10.0	6	.062	.3467	.3562	Gun dated 1923.
	"	20902	R	9.9	6	.061	.3462	.3559	
Česká Zbrojovka, Prague, Czechoslovakia	Czech-Mod. 1924	123847	R	10.1	6	.053	.3450	.3584	Mkd: Česká Zbrojovka A.S. v Praze.
	"	141737	R	10.0	6	.061	.3458	.3554	
	Czech-Mod. 1938	287960	R	10.0	6	.055	.3503	.3623	Mkd: Česká Zbrojovka A.K.C. Spol. Praze
	"	241150	R	10.0	6	.064	.3502	.3584	Gun dated 1939.
	"	281869	R	10.1	6	.059	.3508	.3604	Specimen has safety lever.
Mre. d'Armes de Chatellerault, Chatellerault, France	French Service Pistol M1950	A-8626	L	10.7	4	.098	.3456	.3566	Mkd: Česká Zbrojovka A.K.C. Spol. Praze
Colt's Manufacturing Co., Hartford, Conn.	Commander	B-2181	L	10.7	4	.097	.3450	.3550	Gun dated 1939.
		2431-LW	L	16.0	6	.057	.3485	.3567	New, unused gun.

Additional measurements

Manufacturer	Model (or Name)	Serial No.	Dir'n of Twist	Inches of 1 Turn	No. of Lands	Width of Land	Bore Diam.	Groove Diam.*	Remarks
Deutsche Waffen u. Munitionsfabrik, Berlin, Germany	Luger 1908	5742	R	9.5	6	.083	.3483	.3602	Dated (reworked) 1924.
	Luger~08/14	6893	R	9.9	6	.084	.3490	.3590	Gun dated 1917. Navy model.
	Luger 1908	7338-b	R	9.9	6	.080	.3482	.3577	Gun dated 1941.
	"	4895-g	R	9.9	6	.081	.3483	.3600	Gun dated 1918.
	"	7761-j	R	9.9	6	.070	.3487	.3582	Gun dated 1918.
	"	3927-p	R	9.9	6	.083	.3476	.3588	Had barrel only.
	"	6438-t	R	9.9	6	.082	.3484	.3590	
Deutsche-Werke, Erfurt, Germany	Ortgies	28417	R	9.6	6	.029	.3524	.3607	
		59245	R	9.5	6	.042	.3506	.3604	
	Echave, Arizmendi y Cia., FAST S.A., (Trade Name ECHASA) Eibar, Spain	65243	R	14.0	6	.077	.3476	.3555	
Bonifacio Echeverria, Eibar, Spain	STAR-Mod. DK	585112	R	12.6	6	.054	.3484	.3570	
	STAR-Mod. M	767633	R	12.8	6	.063	.3488	.3566	.38 Long ctge.
	STAR-Mod. S	781177	R	12.6	6	.061	.3479	.3549	
	STAR Modelo Militar	721	R	10.6	6	.056	.3493	.3547	Early type.
Erfurt, Arsenal, Erfurt, Germany	"	2480	R	12.2	6	.060	.3482	.3552	"
	Luger 1908	6669	R	9.95	6	.073	.3475	.3590	Gun dated 1912.
	"	7275	R	9.8	6	.080	.3483	.3580	Gun dated 1914.
	"	8406-d	R	9.8	6	.076	.3481	.3597	Gun dated 1916.
Esperanza y Unceta, Guernica, Spain Fab. Nationale d'Armes de Guerre, Herstal, Belgium	Luger 08/14	8838	R	9.9	6	.081	.3484	.3595	Gun dated 1914.
	Campo Giro M1913	1355	R	9.5	6	.060	.3481	.3590	
	Campo Giro M1913-16	6559	R	9.5	6	.066	.3507	.3594	
	Browning-1903	1851	R	15.85	6	.037	.3521	.3623	Also known as "Browning Long".
	"	52076	R	16.05	6	.035	.3526	.3615	Has Yugoslav marking.
	"	17252	R	15.8	6	.038	.3520	.3596	Has Russian marking.
	Browning Mod. 1910	560532	R	9.6	6	.029	.3510	.3602	New gun. Mkd: Browning Arms Co., St. Louis & Montreal, P.Q.
Fémáru Fegyver és Gépgyár, R.T., Budapest, Hungary (Usually referred to as Fegyvergyar)	"	571044	R	9.55	6	.029	.3510	.3602	
	"	604530	R	9.5	6	.030	.3509	.3599	
	Browning Mod. 1922	39107	R	9.4	6	.036	.3520	.3605	Has Yugoslav markings. Was used in Mikhailovich's Army.
	"	231260	R	9.95	6	.036	.3516	.3596	Has Yugoslav markings.
	Browning HP	51273	R	9.9	6	.084	.3493	.3597	No German marks.
	"	54428	R	9.9	6	.081	.3490	.3590	Has German acceptance marks.
	"	(1059)	R	9.8	6	.076	.3482	.3592	Has Congolese markings. No. 1059 probably a contract number.
Mre. Francaise d'Armes et Cycles, St. Etienne, France Gabilondo y Cia., Elgoibar, Spain (Now in Vitoria under the name Llama-Gabilondo y Cia.)	"	T265484	R	9.9	6	.077	.3476	.3574	Dist. in U.S. and Canada by Browning Arms Co.
	Fegyvergyar Tokagypt 29M	27682	R	9.85	4	.118	.3442	.3586	Hungarian improved Tokarev in 9 mm Par.
		E-12434	R	9.35	6	.070	.3495	.3568	Made for Egyptian Army.
	"	E-08814	R	10.0	6	.071	.3504	.3569	"
	Walam	E-02127	R	9.65	6	.071	.3500	.3578	Hungarian version of Walther Mod. PP.
	"	E-02549	R	9.2	6	.070	.3501	.3577	
	Mod. 37M	128727	R	9.8	4	.112	.3443	.3576	
Mre. Francaise d'Armes et Cycles, St. Etienne, France Gabilondo y Cia., Elgoibar, Spain (Now in Vitoria under the name Llama-Gabilondo y Cia.)	Frommer STOP "Le Francais" Army Type	101338	R	9.6	4	.126	.3447	.3575	
	"	7727	R	15.2	6	.045	.3539	.3616	Was never accepted by French Army.
	Llama-Mod. III	61565	R	11.9	6	.0059	.3478	.3558	
	"	62508	R	11.8	6	.065	.3474	.3565	
Soc. Siderurgica Glisenti, Turin, Italy Heckler & Koch, G.m.b.H., Oberndorf a N, Germany	Llama Mod. VIII	140291	R	12.0	6	.061	.3477	.3573	
	"	145346	R	12.1	6	.055	.3482	.3541	
	"	241357	R	12.3	6	.053	.3480	.3522	
	Llama Mod. XIII	416955	R	11.8	6	.064	.3485	.3545	Unused gun. Raised "ventilated" rib.
Soc. Siderurgica Glisenti, Turin, Italy Heckler & Koch, G.m.b.H., Oberndorf a N, Germany	Glisenti Mod. 1910	C-1003	R	10.0	6	.086	.3500	.3596	
	"	H-380	R	9.9	6	.087	.3493	.3587	
	Mod. HK4	10572	R	10.0	6	.033	.3477	.3577	Barrel No. 100562. One of four barrels.