RUSSIAN PISTOLS
in the Seventeenth Century

Leonid Tarassuk

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TO MY MOTHER WHO ALWAYS ENCOURAGED
MY INTEREST IN ARMS AND ARMOUR.

Printed in Great Britain.

INTRODUCTION

This study is an attempt to give a concise systematical survey of the history of Russian pistols before the end of the 17th century. It is based on results of ten years' research work in the field of Russian firearms and exposes some important data on the subject recently brought to light.

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Leonid Tarassuk

THE question of when pistols were first used in Russia and when and where their manufacture was started there has not been examined in the literature of arms and armour. The investigation of these problems is greatly complicated, by, first of all, the small number of written sources available that shed light upon Russian sixteenth-century hand-firearms, and, secondly, by the absence from arms collections of pistols of this period that can be firmly identified as Russian. On the other hand, it should be noted that the documentary and other material relating to the history of late-medieval Russian arms and armour in general have never been adequately studied.

In comparison with references to Russian sixteenth-century firearms, the amount of evidence concerning such arms in the seventeenth century is fairly large,[1] but this has been investigated only in part, too; moreover, this has been done from a standpoint which often proved to be obsolete in the light of the present knowledge about the evolution of European firearms.[2]

Bearing this in mind I shall attempt in this and the following article to outline some of the results of the latest research into the history of Russian sixteenth–seventeenth-century hand-firearms, paying special attention to Russian pistols – a category of weapons of that period which has been least studied.

Earliest evidence of pistols in Russia

Till recently, sixteenth-century written sources did not yield any evidence that there had been pistols in Russia during that period; although these weapons are known to have been widespread by the mid-sixteenth century in a number of the European countries with which the Russian State had been developing political, commercial and military contacts. That is why it would seem to be quite justified to have supposed that as these international contacts developed, European pistols had been imported into Russia, together with other weapons and armour in the second half of the sixteenth century, at least. During the Livonian War (1558–82), in particular, the Russian army must regularly have come across

a wide range of European firearms; and it is more than probable that a quantity of such weapons were brought to Russia as trophies of war. This is borne out by the fact, among others, that the term *zamok livonskii* – 'Livonian lock' – was among the Russian terms used in the second half of the sixteenth century to designate the wheel-lock, as we know from contemporary documents.[3] It is equally probable that West European weapons, including pistols, appeared in the Russian armed forces in that period together with foreign mercenaries, among whom there were, according to Giles Fletcher, English Ambassador (1588), many Poles, Dutchmen, Scots and Scandinavians.[4]

Commercial contacts were an even more important source for import of European firearms; and a great deal was done in this sphere by the Muscovy Company which had been founded by British merchants. There is evidence that guns and pistols were among the goods in which it traded: thus, Arthur Edwards, the Company's chief trading agent in Russia and Persia, in a letter written on 16th June 1567 from the Astrakhan fortress asks his colleagues to send – for selling to the Shah – '*twentie handguns being good, some of them with fire locks, and also six good dags, with locks to trauel withall*'.[5] So pistols were eventually among the articles offered by the British merchants who came to Northern Russia, and it is not difficult to appreciate that such attractive items, brought to Russia either specially or in transit, would find eager buyers among wealthy people, particularly in the army and at the tsar's court.

The Russian State maintained extensive trade relations with the German states, which in the sixteenth century were a centre of intensive development in the manufacture and export of guns and pistols with sparking locks. Such weapons were designated in the Russian, Czech and other Slav languages in the sixteenth century by a special term – *samopal*, *i.e.* 'self-shooter'.[6] The fact of the early spread of this term and the relevant weapons in the north-western areas of the Russian State gives us grounds to assume that the first wheel-lock and snaphance firearms penetrated to Russia *via* Germany and Scandinavia. In a Russian–German conversation book, compiled by a German merchant in the sixteenth century, we find the word *samopalky* ('small self-shooters') translated as *Sadel Reer*.[7] Quite close to it is the Spanish mid-

sixteenth-century term for a pistol, *i.e. arcabuzillo de arzon.*[8] These comparisons lead to the conclusion that the term *samopalky* probably stood for holster pistols fitted, of course, with a kind of sparking lock; and often meaning, in the first half of the sixteenth century, nothing more than a smaller gun of this sort (*samopal*). This also suggests that initially, before the Russian language borrowed the special word *pistol*, the term *samopal* was used to designate all sorts of sparking-lock firearms. This conclusion is borne out by a 1586 Russian–French dictionary, where the word *samopal* is translated as *une pistole.*[9]

Consequently, in the light of the above data, it would be reasonable to assume that pistols were known and used in Russia, at least in the second half of the sixteenth century; though probably confined to the privileged and wealthier strata of society. The earliest authentic evidence for this assumption, as far as we know today, dates back to the late sixteenth–early seventeenth centuries. It is to be found in the writings of Per Persson, a Swedish nobleman who lived in Russia from 1603 through 1606 and who later made two short business trips to that country. In his essay,[10] in which he gives a fairly detailed account of Russian arms, Persson writes, among other things: '*Etliche haben Pistolen vnd andere lange Röhre mit Lunten vnd Schnaphähnen . . . Sie machen jetzund selbst Mussketen vnd Stücken wie auch andere KriegsMunition*' . . .[11] In the Swedish edition, this description of firearms reads: *The andra draga . . . Röör, longa och stackotta, doch möst lunte och flinteröör.*[12] Confirming the data already available on the fact that not only match-lock, but also flintlock, guns were used in Russia in the late sixteenth–early seventeenth centuries,[13] Persson's report contains the first important mention of the pistol (in the Swedish text: *stackotta flinteröör*) as a Russian weapon. Moreover, the terms *Schnaphähnen* and *flinteröör* encourage us to try to determine what types of locks the pistols used in Russia were mostly fitted with at that time (the mention of matches must, of course, refer to guns only). Although these two terms were then appended to any type of ignition mechanism operating on the principle of flint striking against steel, in this case it is unlikely that they implied locks of the Mediterranean system which came into use in Russian arms, in the 1640's, in guns only (as a form of the Middle-East type of the Spanish lock).[14] We may

also exclude the archaic construction of the snaphance lock with hand-operated pan-cover, as being inconvenient in pistols and known not to be used in them. It is unlikely, too, that Persson had in mind the Scandanavian snap-lock with turning-side steel, because we do not come across it in seventeenth-century Russian pistols either. This prompts us to draw the conclusion that what Persson described as *Pistolen mit Schnaphähnen* were the weapons with snaphances of the Anglo-Dutch type, the wide use of which in Russian pistols and guns is shown in hundreds of seventeenth-century examples. Were these arms imported or made in Russia proper at the time described by Persson? We have sufficient ground to answer both questions in the affirmative.

While today we know of the appearance of European guns and pistols in Russia in the second half of the sixteenth century only from written sources, actual firearms have survived as proof of the import of and trade in these articles in the early seventeenth century. Among these there are two snaphance pistols in the Kremlin Armoury, brought as a gift to tsar Boris Godunov and his family in 1604 by Sir Thomas Smith, the English Ambassador.[15] Two more English-made snaphance pistols, dating back to about 1600 and probably imported in the early seventeenth century, have been preserved at the Tula Arms Museum.[16] Three snaphance locks, almost certainly of English origin, and later mounted on pistols in a Russian gunmaker's shop, are of the same type and dating.[17] The production of snaphance guns (*samopals*) in Russia itself in the last third of the sixteenth and in the early seventeenth centuries is borne out by quite substantial data,[18] which are in accord with the last sentence of the excerpt from Persson's writings quoted above. We may assume, as well, that here the author refers to the production of pistols with snaphances of Anglo-Dutch types, and the more so, as only ten or fifteen years elapsed between the time which the Swedish author's description refers to and the oldest datable examples of Russian arms with precisely these types of locks.

Oldest Russian pistols

The earliest reliably datable Russian pistols are found in a group of firearms which has long been connected with a legendary gunmaker alleged by some historians to have worked in the mid and second half of the seventeenth

century.[19] Recently, however, it has been discovered that these objects, which are extremely important for the history of Russian firearms, were made with the participation of Pervusha Issayev, a lock-maker, whose work at the shops of the Kremlin Armoury is proved by documents dating to 1616–25.[20] This group of weapons consists of three guns and four pistols, all of them, with but one exception, fitted with Dutch-type snaphances.

All the pistols with Issayev's locks are of particular interest, and not only because they are the earliest Russian specimens of this type of weapon. The shape of a pair of pistols in the Kremlin Armoury (Figs. 1 and 2) is quite unusual: the extraordinary appearance is due to the rich mother-of-pearl inlaid stocks, the ornaments and mannerist design of which suggest the style of a late sixteenth-century Western gun-maker, most likely of the German school.[21] On the other hand, there is no doubt as to the Russian make of the barrels, the breech of which has a gold design including the State symbol – the Russian double-headed eagle – which points to the pistols having probably been the property of tsar Mikhail Fiodorovich (reigned in 1613–45). Neither are there any doubts as to the origin of the locks bearing P. Issayev's mark and decorated by chiselling and engraving. Floral motives predominate in the ornaments, but there are images of animals, too, and of an eagle pecking a snake – a popular allegory intended in this case, probably, to show the strife of Good against Evil. What strikes the eye in examining the locks is that they are somewhat shorter than the corresponding cuts in the stocks. All these features may be due to the stocks of old imported arms, possibly out of commission, but highly valued precisely because of the smart and expensive stock decoration being used in the making of these pistols. The re-use of these parts may have also been due to the shortage of stock-makers sufficiently skilled in making high quality firearms. This is quite likely to have been the case in the first years of the resumption of work in the Kremlin Armoury after the devastation caused in the 'Time of Trouble' (1605–12) when many treasures of the Kremlin, including arms and armours, were destroyed or plundered.

Among the arms with locks made by P. Issayev, a holster pistol now at the Hermitage (Fig. 3) is of special importance. Its conventional Dutch-type snaphance lock was later sub-

jected to certain modification, in which the steel and sliding pancover were replaced by a combined L-shaped hammer. The pistol is fitted with a safety-catch on the left side of the stock (Fig. 5). Its stub twist barrel is unusually long for Russian pistols (542 mm.) and has a foresight which was a rare thing here in those days. This shows that the pistol was intended not only for close combat, but evidently for aimed, longer distance fire as well. The general form of the stock is in conformity with the European type as it had evolved by the 1620's, but the decoration of the stock is in a more local style: the wood is adorned on the top and at the bottom of the lock with engraved silver plates, the lock screws have nuts the shape of rosettes, while the grip is mounted in a butt-cap (Fig. 4) and grip-plates of embossed silver. This form and design of grip ornament was to remain a characteristic feature of most Russian pistols up to the last third of the seventeenth century. In this case the butt-cap carries the embossed image of a lion amidst a floral ornament, while the butt-cap ring bears the inscription that the 'pistol is made in the year 7130', *i.e.*, translated from the chronology used before Peter the Great ('since the Creation'), in 1621–2. This inscription makes this pistol the earliest authentically dated specimen of Russian hand-firearms. Moreover, the inscription is the first to mention the word *pistol* in Russian written monuments.

A six-shot revolver with lock and cylinder made by Issayev (Figs. 6 and 7) is of still greater importance for the history of firearms. The barrel bears simple floral designs, among which there is the trefoil – a frequent motive in Russian applied art. The cylinder is decorated by arabesques in rectangular cartouches damascened alternatively in gold and silver. The mount of gilded silver is ornamented by chiselling, and the butt-cap is ornamented by chasing (the grip-plates are missing). As compared with later specimens of Russian firearms, the entire metal decoration of the revolver (and of other weapons with locks made by Issayev) is distinguished by the naïve simplicity both of the ornament pattern and of the decoration technique. In construction and some decorative details, this weapon is close to the five-shot revolving *samopal*[22] made, according to documents, by the same gunmaker in 1625. However, the revolver has a very important feature that distinguishes it from all known fire-

arms made by Issayev and other Russian gunmakers of that time: instead of making the usual Dutch-type lock, the gunmaker provided the revolver with a French-system flintlock, the pattern and parts of which are obviously associated with the earliest specimens of this mechanism.[23] The significance of this firearm is not limited to the fact that it is the oldest Russian revolver. It gives us an unexpectedly early date for the appearance of a French-system flintlock in the work of a Russian gunmaker, pointing to the amazingly quick spread of this revolutionary mechanism which was possible, of course, only so long as there were lively relations between Russia and Western Europe. It would seem that only a few, isolated firearms with the French-system flintlock were brought to Russia in the early seventeenth century; and its design was reproduced by this outstanding lockmaker, who immediately appreciated the advantages of this new construction.

Pistols with Anglo-Dutch snaphances, 1625–50

Up to the 1640's the use of the French flintlock in Russia was still sporadic, and various modifications of archaic snaphances (for guns only) and Anglo-Dutch snaphances (for guns and pistols) continued to play a considerable part in Russian firearms production. Moscow gunmakers of the second quarter of the seventeenth century were gradually showing more and more preference for the latter. It became a stable tradition to put English-type snaphances mainly into guns, while locks of the Dutch form with semi-circular lower edge were mounted on pistols and carbines. The Dutch-type lock was used more often than not in cavalry arms, probably because the streamlined stock with smooth transition from forestock to trigger-guard, conforming to the lock, permitted the horseman to get the pistol out of and into holsters much easier. This form of stock, characteristic of wheel-lock firearms of that time too, was preserved as a rule in Russian pistols even in the rare cases when they were fitted with English-type snaphances: for example, two pistols dating evidently back to *c.*1620–30.[24] Both pistols have foreign (English?) brass barrels with the mark PL and locks almost certainly of English make. The ornamented grip mounting, however, shows that the stocks were made, and the weapons assembled, in a Russian workshop.

Among a series of Russian firearms of the second quarter of the seventeenth century belonging to the type of weapons under examination are two pistols in the Hermitage Collection which are distinguished by their luxurious finish (Figs. 8–10). Their locks and the five upper facets of their barrels, marked by a foreign gunmaker I.M.,[25] are entirely covered with a filigree design of small arabesques damascened in gold. The finesse of the design and the technique and quality of execution closely resemble the ornamentation on a helmet made in 1621 for tsar Mikahil by Nikita Davydov, an outstanding gunmaker, armourer and decorator at the Kremlin Armoury (worked from 1613 to 1664).[26] It is quite possible that he himself or one of his pupils was responsible for the decoration of these pistols, which date from a much later period, judging by the forms of the snaphance plate, cock and pancover fence.[27]

The finish of the grips follows the pattern usual for Russian pistols but the ornament of interlaced floral patterns is applied upon a silver mounting not by chasing, but by the rare combination of chiselling and nielloing on gilded ground (Fig. 10). The circumstance that the pistol barrels are marked by a foreign gunmaker and the stocks are made of mahogany grazed in black permits us to assume that these arms could have been imported from the Netherlands (or Germany) and then ornamented by decorators at the Kremlin Armoury according to the national style and the customer's preference.

Russian-type snaphance pistols

By the 1630's Russian gunmakers had developed several types of locks, the shapes of which directly followed the pattern of archaic snaphance construction. The oldest of these is, without doubt, the gun lock of archaic construction supplemented by a dog-catch for half-cock position.[28] This type soon gave rise to another variety of gun mechanism in which the hand-operated pancover was removed, as the hammer performing its function was given an L-shaped form due to the development of its bulging lower edge.[29] The third type of Russian gun lock was a construction which very much resembled an archaic one by the shape of the cock and outer springs only, whereas in the mechanical parts it actually reproduced an English-type snaphance. There

was, however, a dog-catch added to it.[30] In Russian pistols, this type is paralleled by a mechanism, the lock-plate of which follows, as would be expected, the Dutch pattern (Figs.12, 14, 15 and 17); an L-shaped catch on the left side of the stock, frequently used in English snaphances, too, and intended to lock the bar of the sear in full-cock position (Fig. 5), served here as safety-device. The trigger unit in Russian-type pistol-snaphances represented as a rule a rather simple one-spring device borrowed from snaphances of archaic construction (Fig. 13). The cock, just as in Russian-type gun locks, has a cocking ring developed from a corresponding tail-looking piece in archaic snaphances. Thus, this type of pistol-snaphance is an original combination, in which the mechanism of the Anglo-Dutch snaphance it is based on follows, in the arrangement of parts, their shape and partly even in construction, the pattern of the archaic gun lock.

Due to the external arrangement of almost all its parts, the Russian pistol-snaphance must have looked a rather complicated mechanism; and this impression of complexity and archaicism was deliberately, as it were, enhanced by the ornamental finish of the snaphance. Its details were decorated with deep tracery chiselling, the designs of which frequently resembled folk-carving in wood, characteristic of the northern areas of Russia. Among the ornamental motifs we often find grinning beast muzzles, while the 'tail' of the steel spring is always chiselled in the form of a very stylized animal head. Judging by the specimens that have come down to us, such snaphances were quite popular in Russian pistols in the second third of the seventeenth century; and now we know of no less than six gunmakers in the Moscow Armoury making these mechanisms.[31] Thanks to these decorative features and design, the Russian-type pistol is easily identified among other ignition mechanisms and – with the corresponding finish of the stock – shows the doubtlessly Russian origin of an arm.

This group of firearms is represented by a pair of pistols in the Hermitage Collection (Figs.12 and 13). Their barrels filed on top in five facets are engraved with delicate scrolls and flowing arabesques. The locks are chiselled with large and comparatively simple designs. It is the original grip plates that attract attention among the stock mounts. As in

most Russian *de luxe* pistols, the grip is mounted in sheet silver which, due to the blackened ground, shows up prominently the floral patterns applied by chasing followed by engraving of the pattern elements.

Another pair of pistols (Fig. 14) deviates somewhat from the general style of Russian snaphance pistols. Their grips have no grip-plates, and in this they resemble contemporary West-European specimens. The barrels and stocks are finished in a style of some severity; instead of the usual facets running the length of the barrels, there are four fine gilded ribs, while the forestocks are fringed with simple carved edges. The mounts are made of plain gilded brass and the silver butt-cap carries a chased rosette, four petals of which are nielloed while the others are gilded and engraved with little fish patterns (Fig. 11). It is the painstakingly chiselled locks which are indicative of Russian workmanship; the pistols may be assumed to have been made jointly by local and foreign gunmakers in the Kremlin Armoury.

The tendency to proportion the decoration of the various parts of arms may also be observed in a pair of pistols belonging, according to the inscriptions on both butt-cap rings, to A. B. Musin-Pushkin who was dapifer to the tsar Alexei Mikhailovich (reigned in 1645–76) in the mid-seventeenth century. But the entire ornamentation of these pistols (Fig. 15) is of a prominently vivid, lively character. The three upper facets of the barrel are engraved with scrolls and arabesques, the central facet being set off by continuous gilding. There are figured cartouches with large arabesques against a gilded ground chiselled at the ends and in the middle of the barrels (Fig. 16). The locks are adorned with the traditional chiselling and, in some parts, with engraving. One of the locks bears the mark of a pattern characteristic of the Kremlin Armoury; the partly obliterated letters stand probably for the abbreviated form of a lock-maker's name ('Fiodor'?). All mounts with the exception of the trigger-guard, are made of silver plates, a floral pattern embossed on a blackened ground making them seem quite massive. A similar ornament on the butt-cap bears the figure of a unicorn – a symbol of invincibility, popular in Russia (Fig. 18).

A holster pistol (Fig. 17), unusually modestly decorated which testifies to its purely combat purpose, is among the latest specimens of pistols with Russian snaphance known to me. The lock is decorated with chiselling typical of the entire

group and the upper barrel facets preserve traces of simple arabesques laid on in silver upon the steel surface. The stock is slightly carved at the lock only, and the smooth steel mounts stress the purely utilitarian nature of the weapon; instead of the usual pipes for ramrod there is here a long channel running inside the forestock.

In spite of their outwardly imposing character, the pistols of this group do not seem to have been popular after the 1660's. They were made in diminishing numbers by Russian gunmakers, partly because of the growing fashion for Dutch-type pistols, and partly because of the increasingly frequent appearance in Russia of firearms with French-type flintlocks. But purely practical considerations must also have contributed to the gradually diminishing demand for Russian-type snaphances. Though when worn in the belt such a pistol must have looked quite effective, and contributed to a stylish appearance, the use of such arms with holsters was, no doubt, less convenient than the handling of pistols whose locks had fewer external parts and a more compact general shape. Moreover, with the short and weakly bent grip, the heel of the cock would tend to brush against the palm of the holding hand at the instant the trigger was pulled, thus affecting the accuracy of the shot. This is eloquently borne out by special leather cushions nailed to the grip of many pistols in this group, so as to cover the heel of the cock (Fig.12)[32]

What it is also important to stress is the stylistic unity which distinguishes Russian-type pistols, and sets them apart from a whole range of seventeenth-century pistols produced in Russia, and notable for their stylistic eclecticism. The above group of firearms shows an unusually harmonious combination of lock decoration and ornamentation of the barrels and stocks. It may be justly said that the best of these pistols most vividly reflect the specific artistic style of Russian gunmakers, who were working at a time when all the applied arts in Muscovy were flourishing.

[1] Major collections of Russian firearms are in the custody of the Kremlin Armoury in Moscow, the State Hermitage Museum in Leningrad, the State Historical Museum in Moscow and the Military Historical Museum of Artillery, Engineering and Signal Troops in Leningrad.

[2] Among the works of my forerunners who studied Russian sixteenth–seventeenth-century hand-firearms, the following merit particular attention: N. E. BRANDENBURG: *Istoricheskii Katalog S. Peterburgskogo Artilleriiskogo Museya* [Historical Catalogue of the St Petersburg Artillery Museum], Part I, Petersburg [1877]; S. K. BOGOYAVLENSKY: '*Vooruzhenie russkikh voisk v XVI–XVII vv*' [Weapons and armours of the Russian Army in the sixteenth–seventeenth centuries], *Istoricheskie zapiski*, No.4, Moscow [1938], pp.258–83; S. L. MARGOLIN: 'Vooruzhenie streletskogo voiska' [Weapons and armours of streltsy troops], *Trudy Gosudarstvennogo istoricheskogo museya*, XX, Moscow [1948], pp.85–102; N. V. GORDEYEV: 'Russkoye ognestrelnoye oruzhie i mastera oryzheiniki Oruzheinoi Palaty XVII veka' [Russian firearms and gunmakers of the Kremlin Armoury in the Seventeenth Century], in collected volume: *Gosudarstvennaya Oruzheinaia Palata Moskovskogo Kremlia*, Moscow [1954], pp.1–60.

[3] L. TARASSUK: 'Iz istorii russkogo ruchnogo ognestrelnogo oruzhia XVI–XVII vv' [To the history of Russian hand-firearms in the sixteenth and seventeenth centuries], *Sovetskaya Arkheologia* [1965], No.2, p.113.

[4] G. FLETCHER: 'Of the Russe Common Wealth', in R. HAKLUYT: *The Principal Navigations, Voiages, Traffiques and Discoveries of the English Nation . . .*, I, London [1598], p.482.

[5] R. HAKLUYT., *op. cit.*, p.363. For the meaning of the terms *fire-lock* – 'wheel-lock' and *dag* – 'pistol' see J. F. HAYWARD: *The Art of the Gunmaker*, I, London [1965], p.119. It must be pointed out that the identical European terms *fire-lock* and *Feuerschloss* found their exact equivalent in the Russian *zamok ognenny*, which was used as designation for the wheel-lock in a source dating back to the early 1580's (see L. TARASSUK, *op. cit.*, p.114).

[6] For details see L. TARASSUK, *op. cit.; id.*, 'Znachenie termina "samopal"', *Vestnik Leningradskogo Universiteta* [1965], No.14, pp.152–6 (English summary: The Meaning of the Term *Samopal*).

[7] S. M. STROEV: *Opisanie pamiatnikov slaviano-russkoi literatury . . .* [Description of memorials of Slav-Russian literature . . .], Moscow [1841], p.136. The conversation book carries also the words *Dolgy Rutznitze* ('long handguns') and *Pischala* (gun), translated correspondingly as *Lange Reer* and *Langror* which must have stood doubtless for foot shooter's guns with match-lock.

[8] J. D. LAVIN: *A History of Spanish Firearms*, London [1965], p.283. C. BLAIR: *European and American Arms*, London [1962], p.52.

[9] B. A. LARIN: *Parizhskii slovar' moskovitov* [Muscovites' Parisian Dictionary], Riga [1948], p.80. Quite interesting is an analogy from the Serbo-Croat language, where the synonyms *samopalo* and *samokres* stood for 'automatic pistol'.

[10] PETRUS PETREJUS UBSALIENSIS: *Regni Muschovitici sciographia*, Stockholm [1615]. German edition: *Historien und Berich von dem Grossfürstentumb Muschow*, Leipzig [1620]. The accuracy of the armament terms used by the author is borne out by the important fact that he translated his work from Swedish into German himself.

[11] *Rerum rossicarum scriptores exteri*, I, St Petersburg [1851], p.301.

[12] *Ibid.*, p.375, note 785.

[13] L. TARASSUK: 'The Meaning of the Term *Samopal*', p.155.

[14] N. V. GORDEYEV, *op, cit.*, Figs.10 and 11.

[15] See J. F. HAYWARD: 'English Firearms of the 16th Century', *The Journal of the Arms and Armour Society*, III, No.5 [March 1960], p.119, pl.xxxii.

[16] Belt-pistols (Inv. Nos.263 and 617). Each pistol has a brass barrel with trumpet-shaped muzzle, lemon-butted grip and left-side safety-catch; the locks have a shape and details closely resembling the pieces illustrated by J. F. HAYWARD, *op. cit.*, pls.xxxii, xxxiii and xxxviii.

[17] Tula Arms Museum, Inv. Nos.614, 615, and 616.

[18] L. TARASSUK: 'To the History .', pp.117–18. For illustrations see N. V. GORDEYEV, *op. cit.*, Figs. 6–9; L. TARASSUK: 'The Collection of Arms and Armour in the State Hermitage, Leningrad', *The Journal of the Arms and Armour Society*, V, Nos.4–5 [March–June 1960], pl.xxxviii-A.

[19] N. V. GORDEYEV, *op. cit.*, pp.40–6.

[20] L. TARASSUK: 'Introduction de la platine à silex *à la française* dans les armes à feu russes', *Armi antiche*, Turin [1964], p.5 seq.

[21] Stylistically these pistols remind us of a *c.*1600 breech-loading pistol, the stock of which is attributed to M. Schuster, a Vienna gunmaker (see *e.g.* J. F. HAYWARD: *The Art of the Gunmaker*, I, p.309 pl.22a).

[22] The Kremlin Armoury, Inv. No.7595 (see N. V. GORDEYEV, *op. cit*, p.41, seq., Fig.30).

[23] For details see: L. TARASSUK: 'Introduction . . .', p.5 seq.

[24] These pistols are in the Tula Arms Museum, Inv. Nos.615 and 616.

[25] *Cf.* J. F. STØCKEL: *Haadskydevaabens bedømmelse*, II, Copenhagen [1943], Nos. 3466 and 3467.

[26] The Kremlin Armoury, Inv. No.4411. See F. Y. MISHUKOV: 'Zolotaya nasechka i inkrustatsiya na drevnem vooruzhenii' [Damascening in gold on ancient armours] in *Gosudarstvennaya Oruzheinaya Palata Mosk. Kremlya.* [1954], p.117, Figs.3 and 8.

[27] During restoration in the nineteenth century, a new cock for the pistol 3.o. Inv. No.5103 was made; in both locks a wheel-type sear device was reconstructed rather unskilfully.

[28] *The Journal of the Arms and Armour Society*, V, Nos.4–5, pl.xxxix-A.

[29] *Ibid.*, pl.xxxix-B.

[30] *Ibid.*, pl.xxxviii-B.

[31] At the Kremlin Armoury collection, there are pistols with snaphances bearing the marks of Pavel Mikhailov, Andron Dementiev, and gunmakers 'Nikolai' ('Kolin'?) and 'Ivan' (see N. V. GORDEYEV, *op. cit*, p.23, Figs.19, 23 and 24). A pistol bearing the mark 'Elissei' is in the custody of the State Historical Museum.

[32] Some pistols still bear the traces of nails used to attach cushions to stocks. The cushions proper were probably worn out and lost at a later date (see specimens in Figs.14 and 15).

BEGINNING in the early 1630's, the Russian army was subjected to a thorough reorganization, the nature of which was determined to a considerable extent by armed conflicts on Russia's western borders.[1] Along with the recruiting of new European mercenary units, the formation of foot, dragoon, cuirassier (*Reiter*) and hussar regiments under 'foreign ordinance' was started of the Russian subjects under the guidance of foreign officers. These measures were accompanied by large scale imports of weapons and the employment of foreign armourers to work on the expanding arms production programme. It is known, for instance, that in 1631, not long before the war with Poland, Colonel Alexander Lesly,[2] a Scot in Russian service, went abroad to recruit 5000 infantrymen in Sweden, and in case he failed to do so in that country, to recruit them in Denmark, Holland and England, as well. Two Russian commissioners accompanied A. Lesly to purchase 10,000 muskets and other weapons abroad. At the same time, Colonel Heinrich von Damm was sent from Moscow to Northern Germany to recruit a foot regiment of 1600 soldiers and to buy the necessary arms.[3] In 1632 the Russian Government purchased for its army 7200 muskets and 300 carbines in Narva (which was Swedish territory at that time).[4] What is more, according to other documents, the Ordnance Office (*Oruzheinii Prikaz*) purchased in 1631–40 about 12,000 items of armament abroad, not counting accessories to them. Muskets, carbines and pistols accounted for almost 90% of these purchases. Swords and *Reiter* cuirasses predominated among the 18,000 items imported in the next eight years.[5]

The Russian-Polish war of 1654–6 was preceded by a particularly extensive import of weapons. In 1653 Captain Just van Kerkhoven was sent from Russia to Germany and Holland to purchase carbine and pistol wheel-locks and recruit wheel-lock makers. That same year the tsar's commissioners, Andreas Winius, under-secretary Golovnin and others, started buying in Holland large consignments of weapons, including 20,000 muskets. Soldiers and officers for training the Russian regiments of 'foreign ordinance' were recruited in Holland, too. Many thousands of firearms were imported into Russia in the following period of uninterrupted wars.[6]

The period *c.*1630–*c.*1665 saw the expansion of arms production in the country, primary attention being paid to firearms. The Ordnance Office, which was in charge of the workshops of the Kremlin Armoury, remained the most important centre of this activity. According to the available but, probably, incomplete data, the number of people employed at the Armoury trebled from 1614 to the 1630's and, not counting the apprentices, rose to sixty-six armourers – mostly Russian artisans. Among the prominent foreign gunmakers at the Armoury at that period was Robert Ellert, a Dutchman who worked there from 1620 to 1647 and who occupied the post of arms supervisor from 1633.[7] Of course, the Armoury which catered mostly for the tsar and his court could not cope with the production and repair of weapons in the steadily increasing armed forces. That is why special workshops, working under the supervision of the Armoury's gunmakers and integrated in 1648 into the new so-called 'Barrels Office', in charge chiefly of military firearms, were set up in the 1630's for this purpose on the territory of the Kremlin.[8] The establishment in 1648 of a barrel manufactory in Moscow, headed by H(?) F. Aken, a Dutch barrel-maker, is undoubtedly connected with the founding of that Office. Still earlier, beginning in 1632, the Dutch merchants, the Winius brothers, and the Englishman(?) E. Wilkinson started building near Tula metallurgical and weapons factories, which were later designated as the Gorodishchensky Works. Another group of similar manufacturing enterprises – the Kashira plants – was founded in 1653 by the Dutchman Thieleman Akkema and the Dane P. Marselius.[9]

Anglo-Russian relations, which had grown cooler during Oliver Cromwell's rule, revived again after the accession of Charles II who always enjoyed the support of Tsar Alexei Mikhailovich. In 1660, John Gebdon, an English royalist in Russian service, was appointed the tsar's resident in Holland with the task, among others, of constantly supervising the recruiting of soldiers and handicraftsmen. This appointment, incidentally, shows what an important part Holland was playing in the military measures of the Russian Government. The friendly attitude of the English court permitted J. Gebdon to carry out, in the spring of 1661, the tsar's extraordinary mission and to obtain King Charles's permission to recruit a detachment of 3000 English soldiers for Russia.[10]

However, at that period Anglo-Russian relations did not attain the same stability and intensity as Russo-Dutch relations. This was evidently due, in part, to the failure of the British attempts to restore the former privileges to English merchants in Russia.[11]

It is also necessary to point to Russia's trade and political relations with Persia and Turkey, which developed throughout the whole seventeenth century. Weapons and armours, including guns, were imported, together with various other goods from these countries. The documents of the Armoury contain numerous data on the arrival of such weapons, either purchased or presented to the tsars as gifts.[12]

These are among the important factors and events which affected, from the second third of the seventeenth century onwards, the development of Russian weapons and armours and which enable us to reach a better understanding of the specific nature of the technical and stylistic evolution of Russian firearms in the period preceding the reign of Peter the Great.

Wheel-lock Firearms in Russia

The earliest evidence of the appearance of wheel-lock firearms in Russia is to be found in the same late sixteenth-century sources which provide the earliest examples of the use of the term *samopal* (self-shooter), dealt with in the first part of this monograph. Documents of the late sixteenth–early seventeenth century show that at that time there were imported wheel-lock firearms in Russia, mostly in the possession of the wealthiest people in the country. No doubt they were also used by foreign hired soldiers who had brought them with them. This limited ownership started expanding rapidly with the increase in the number of cavalry regiments of the 'foreign ordinance', in which wheel-lock carbines and pistols were quite widespread and were even regulation weapons. There are documents which show that both the foreign and the Russian soldiers of cuirassier regiments were armed with wheel-lock pistols.[13]

Judging by written sources there must have been a large number of wheel-lock firearms among the weapons imported. Thus, a document of the Ordnance Office reports on the purchase of pistols and carbines from German merchants in 1634.[14] Buf if in this case wheel-locks are indirectly implied by the source of purchase, the information about the above-

mentioned J. van Kerkhoven's mission in 1653 provides direct evidence for the purchase of wheel-locks and the hire of the corresponding craftsmen abroad. A portrait of A. Winius, who was commissioned to purchase weapons in Holland (Fig.19), offers eloquent information on this matter.[15] A. Winius seems to have sat for the portrait in his Amsterdam office filled with specimens of the weapons he was asked to buy. Among them we see authentic wheel-lock firearms – carbine, holster pistol, as well as two detached locks. The fact that these weapons had been shipped by A. Winius to Russia is borne out by his report to the tsar, in which the kinds of weapons seen in the engraving are listed. Mention is also made of spanners for wheel-locks.[16]

There is also some information that wheel-lock firearms were not only imported, but were also manufactured in Russia itself. This could be assumed, on *a priori* grounds, by the fact that a large number of German and Dutch armourers including some lockmakers, were working in Moscow and Tula from the 1630's.[17] But there are direct data, too, on such manufacture in the description of the Tula plants of 1662 when thirty-nine pairs of wheel-locks as well as forty-five pairs of pistol and carbine locks described as 'after Holland fashion' (evidently, Dutch-type snaphances) were listed as being in the workshop of a certain foreigner, Thomas.[18]

In spite of the availability of these and many other written reports on the fairly large-scale use of wheel-lock pistols and carbines in seventeenth-century Russia,[19] we are confronted – as in the case of the relevant English firearms – by the almost complete absence of surviving specimens that can unquestionably be claimed as of local workmanship or imported for use in the Russian army. True, in the latter category may presumably belong a considerable number of wheel-lock pistols made in Suhl and probably used by Russian cavalry till *c.*1715. But as to Russian-made wheel-lock firearms, almost the only known specimen is one of a pair of pistols[20] which, judging by its ornamentation, was made at the Moscow Armoury (Fig.20). However, it is difficult to establish whether this weapon was entirely manufactured in Moscow: the pistol barrel has two indecipherable marks of an evidently foreign gunsmith, while the lock has the same shape as the usual European military models of the mid-seventeenth century. These pistol parts might have been

by snaphances which by the seventeenth century had already established themselves firmly in the Russian firearms industry.

Snaphance Pistols in the Second Half of Seventeenth Century

By the second half of the seventeenth century, Anglo-Dutch type snaphances were already ranking first, if not in the entire production of Russian firearms makers, then at least in the output of *de luxe* weapons of Moscow make. As noted above Russian pistols and carbines were usually provided with Dutch-form snaphances of the same design as those made in the West. On some locks we find the steels equipped with a specially hardened face attached with a screw (Figs.34 and 38), as in some Dutch firearms.

Almost all existing specimens of artistically decorated Russian weapons of the period under review are associated with the Kremlin Armoury which flourished in the reign of Tsar Alexei Mikhailovich (1645–76) who was very fond of hunting and appreciated good weapons. It is hardly surprising that he appointed the boyar Bodgan Khitrovo, who was distinguished for his efficiency, education and fondness for art, to the post of Master of the Armoury in 1657. During the twenty-five years of his direction he considerably enlarged the staff of firearm-makers, striving to ensure the successful production of fine quality, decorated arms by employing a wide range of essential specialists.[22] Moreover, when the need arose for decorating special *de luxe* articles, jewellers from the Gold and Silver Chambers located near the Armoury, and subordinate to the same Bogdan Khitrovo, were put to work here. Among the high-skilled gunmakers of the second half of the seventeenth century, whom we know of from documents, and whose arms have come down to us, must be particularly mentioned senior foreman Nikita Davydov, a veteran of Russian gunmaking, barrelsmith and lock-maker Grigorii Viatkin and his gifted pupil Vasilii Titov, as well as Osip Alferiev, Evrikhi Kuzovlev, and Filip T. Ulianov. The last is known to have been a foreigner who, like many other foreign artisans in Russia, adopted orthodoxy and took a Russian name. Among the data about this gun-maker we find information that he made a pair of rifle-barrelled pistols in 1681. Among the smooth-barrelled pistols usually put out by the Armoury, this still unidentified weapon must have been quite a rarity, though long rifles, often with

stub-twist barrels, occupied a prominent place among its output.

As compared with the preceding period, the firearms made at the Armoury from the mid-seventeenth century on acquire a still more luxurious character, due to rich and often bright decorations. The ornament becomes more intricate and takes up more space on all the parts of the weapon. Painstaking techniques of gold damascening more and more frequently give way to the more effective and quicker method of continuous gilding of steel parts pre-treated by chiselling and incising. Mother-of-pearl together with bone and horn was more widely used in the inlay of stocks. Mounts made of silver and, in special cases, of gold were sometimes enlivened by cloisonné enamel (Figs. 38 and 39) or even precious stones. Meanwhile, some pistols show a certain deviation from the traditional ornamental pattern manifested by the absence of a tang plate or grip plates (Fig. 31).

A pair of pistols preserved at the Kremlin Armoury (inv. No.8281) may serve as a typical example of weapon decoration during Tsar Alexei Mikhailovich's reign. The stock and lock surfaces are entirely ornamented by chiselling and gilding, and amidst the floral motifs we find the State emblem which was far from rare in the output of the Armoury as a whole. Among the most vivid features of the ornamentation is an abstract geometrical pattern of mother-of-pearl chips inlaid on the stock. Such a motley composition of contrasting combinations of bone, ebony, mahogany and mother-of-pearl against the background of the stock are quite frequent up to the end of the seventeenth century. They reveal the obvious influence of the style of decoration used in the arms of the Middle East where such ornaments were still popular in the nineteenth century. Inlayers of the Armoury made rather less use of arabesques, floral ornaments, hunting figures and scenes in a style that was close to the same motifs on German firearms. As in some other articles made at the Armoury the smartness of the decoration on this pair of pistols is enhanced by polychrome-enamel on silver mounts.

Parallel with firearms sparkling with the bright colours of the Oriental style, the Armoury gunmakers produced articles decorated in another manner – outwardly more modest but often no less valuable artistically. A pair of

pistols, remarkable for the high skill displayed in the manufacture of all the parts (Fig.23), undoubtedly ranks first among such items. The stub twist barrels of the pistols are modelled in quite an original manner: they are octagonal at the breech, and farther towards the muzzle, following a carved cartouche, they are filed to seven edges. The desire to vary the design is manifested in the arrangement of the ornament on the barrels where cartouches alternate with transverse rims (Figs.23 and 26). The lock plates are edged with scrolls, and pictures of birds amidst a floral design are incised on the main surfaces (Fig.28). The background of the ornament on the lock plates and barrels is deepened, after etching, by repeated blows with a thin punch, as ornamentalists in metal often used to do. The lower part of the cock is made in the form of a mermaid, the jaws have the shape of a lion's head, and the cocking piece is chiselled as a woman's bust. The pan fences depict a scene that we come across in many works of Russian seventeenth-century art: over a city wall there is an eagle, embodying Christian faith, which fights a dragon entwining him and representing Mohammedanism. This subject became popular due to the legend that the founding of Constantinople was attended by such a battle in the skies, which was said to predict the coming fall of the capital of the East-Christian faith. This tale seems to have won particular popularity in Russia in the period of hostility to Turkey, since the tsars regarded themselves as the champions of Christianity and successors to the Byzantine emperors.[23] Apart from these two pistols, a number of other Russian seventeenth-century weapons are ornamented with this scene too.[24]

There is hardly another specimen of a Russian seventeenth-century firearm in which the stock is decorated with such taste and mastery as the stocks of these pistols (Figs.23, 27 and 29). The lacelike carving is liberally distributed over all the wooden part of the pistols: rims of arabesques and geometric ornaments fringe the forestock of a complex profile; part of the stock containing the lock is ornamented with compositions of intertwining arabesques; on the top part of one of the grips there is the scene of the Constantinople prediction and the grip of the other pistol carries the picture of a dragon below an arabesque cartouche. Hidden among the designs on both grips we find the tiny initials 'EK' which are surely

those of the Armoury's best wood carver, Evtikhii Kuzovlev, who worked there from *c.*1645 to *c.*1690. In the 1680's three members of this outstanding decorator's family – Piotr, Fiodor and Ivan Kuzovlev – worked under his supervision at the Armoury, as well. As far as we know, E. Kuzovlev's mark on the Hermitage pistols is the only known example of a Russian stockmaker's signature.

The silver-gilt mounts are made with great skill also. They are chased and chiselled, the background is deepened by punching and is covered in part by niello. The motives and ornamental details of the mounts are not identical on both pistols (Figs. 24 – 27, and 30). The grip plates differ particularly: one of them bears the heraldic figures of lion and griffin, the other the picture of St George who, being Moscow's patron saint, was depicted in the city emblem, and after 1672 in the State emblem (on the eagle's chest) too. The large number of heraldic emblems on firearms of the second half of the seventeenth century was due to the rapid development of Russian heraldry and to the great interest which Tsar Alexei Mikhailovich showed in it.

Initially, these pistols must have looked still more magnificent, because at least a part of the steel parts was gilded, some of the gilding being discovered on one lock. Beside Evtikhii Kuzovlev, we know of no other artisan who had a share in the creation of this masterpiece; and it remains to discover to whom the mark 'O' twice punched on one of the locks belonged.

In the last thirty years or so of the seventeenth century, the gunmakers at the Armoury started showing particular preference for snaphance locks, the outer parts of which were distinguished by a very simple shape combined with richness of chiselled and gilded ornamentation (Figs. 34 and 38). In this kind of lock the plate is usually decorated with a dragon's head, the lower part of the cock is often formed as a sinuous sea monster, the jaws being filed in the shape of a grinning lion's mouth, the round fence is usually adorned by a crown or, sometimes, by a figure of an eagle, Pegasus or griffin. With the steel in the forward position its arm hides the steel-spring and forms together with the bridle the shape of a dolphin. The locks modelled and ornamented in this manner are quite characteristic of Russian firearms of the last third of the seventeenth century, while the lock-plate form with semi-

circular lower edge is still found on pistols and carbines.

Judging by the large number of weapons that have survived, Anglo-Dutch-type snaphances were used for Moscow firearms of that time on a scale that was even larger than in England and Holland. Due to the fact that Western motifs and techniques of ornamentation (especially those popular in Holland) were used for the articles made at the Kremlin Armoury in the later period on an even larger scale than before, some weapons require extremely painstaking examination in order to find out whether they have been imported from Holland, made by foreign gunmakers at the Armoury, or, finally, were produced by Russian gun-makers under the influence of the fashion and, perhaps, with the participation of foreign decorators. Of course, there is a reliable feature which points to the Russian origin of a weapon, or at least to the Russian assembly thereof: the characteristic abstract ornaments of mother-of-pearl or bone on the gun and, more rarely, the pistol stocks, as well as the silver mounting in the forms so typical of Russian pistols.

The pair of pistols in Fig. 31 gives a good idea of the usual pistols produced by the Armoury at a later period. The stub twist barrels are decorated at the ends with gilded ornaments in the European style, including medallions with personages wearing the dress and coiffures popular in the West in the late seventeenth century (Fig.32). Silver nielloed mounts retain the traditional features of the Russian style, especially due to the somewhat archaic depiction of St George (Fig.33), but the ornamental framing of this figure clearly shows the influence of the European Baroque.

The pair of pistols shown in Fig.38 may serve as a specimen of the *de luxe* firearms of the same period. The breech and muzzle are finely decorated with chiselling and gilding, while the edged part, in contrast to the routine pattern, is twisted and then damascened by alternating rims of silver and gold arabesques. The locks with detached steels are covered with a continuous dense layer of gilding. The mounts enliven the dark monotony of the stock with their bright, light colours (Figs. 38 and 39): they are made of silver, gilded and adorned with cloisonné enamel (the grip-plates and some minor parts of the mounts were lost, and the corresponding cuts in the stocks were filled up with pieces of wood during subsequent restoration).

Judging by dated pieces, Anglo-Dutch-type locks were produced by Moscow gunmakers up to the end of the seventeenth century,[25] when the epoch of Peter's reforms began to affect the Russian weapon industry.

While military pistols were imported together with their holsters, the Kremlin workshops were also making all the accessories for the firearms produced there, including holsters and covers. Being of European shape in general, their artistic ornaments were usually in conformity with the quality and purpose of the arms themselves (Figs. 36 and 37).

Conclusion

The use of pistols in Russia in the second half of the sixteenth century is borne out today by a few written sources and some indirect evidence, all of which show that the owners of such arms belonged to a narrow social sphere – mainly the military-feudal nobility and to a select part of the professional militia. This situation is confirmed by a number of documents, of that time, which clearly indicate that even the landed gentry who entered the tsar's service in time of war and who equipped themselves at their own cost had neither guns nor pistols.[26]

The situation changed in the very first decades of the seventeenth century: firearms were coming into steadily growing use in the Russian army, and pistols became the usual and even obligatory weapon in the various kinds of cavalry. Documents show that at this time the irregular mounted troops of the gentry were no exception in this respect either – earlier they had contented themselves with bows and arrows. Beginning with the second third of the seventeenth century, pistols were already so much preferred by the gentry's cavalry that special orders, intended to strengthen its capacity for long range fighting, had to be issued to make warriors equip themselves with carbines and guns.[27] If some nobles did not have pistols and carbines they were obliged to buy such firearms from the government. This is confirmed by a document dating back to 1661, concerning the delivery of 500 carbines and 500 pairs of pistols with holsters to a cavalry regiment, to be sold to the gentry.[28]

Since the strength of the Russian cavalry in the seventeenth century added up to tens of thousands of men,[29] the demand

for pistols was obviously very great. Large quantities were evidently imported from abroad, while a certain part of the pistols required was made and assembled in accordance with the usual European standards at Tula factories and, possibly, at the Moscow workshops of the Ordnance and Barrel Offices. As to the Kremlin Armoury, its output occupied an exceptional place. Being intended primarily for the tsar and his court, it could not play an important part in equipping the army; instead, the firearms it produced were distinguished by their excellent technical and artistic qualities which reflected the highest achievements of Russian gunmakers before the time of Peter the Great. It was only in case of extreme necessity, when large quantities of damaged army firearms accumulated, that the gunmakers of the Kremlin Armoury were commissioned with repairing the weapons supplied directly to the troops.

The significance of the Armoury went far beyond purely practical production. It was actually a higher school of gunmaking art, where armourers from Russia and other countries of Europe and from the Orient worked in creative collaboration and learned from one another. Armourers from other Russian towns would come here for training or for perfecting their skills. The weapons produced by the Armoury often served to set a technical standard for armourers in provincial towns who worked for the army and whose production was, in doubtful cases, subjected to expert examination by the Armoury's staff. Although many of the artisans employed here were specialists in several gunmaking trades, the organization of work in the Armoury was characterized by a division of labour and narrow specialization, which guaranteed a high level of performance in each departmentalized operation. The number of basic trades connected with the production and ornamentation of firearms at the Armoury was as high as twenty.[30] And, as was mentioned above, artisans from the tsar's other workshops would be commissioned to make valuable settings. No wonder that the articles manufactured at the Armoury present so great a variety of technical and artistic methods of working the various materials used in the production of every kind of weapon.

Two factors played an important part in the typological and stylistic formation of the firearms made by Moscow

seventeenth-century armourers: the weapons imported from abroad for the army and for the tsar and kept at the Kremlin Armoury Stores and the foreign gunmakers who worked side by side with their Russian colleagues in the Armoury workshops. The forms and types of firearms at that time were most of all influenced by the English and, especially, by the Dutch school of firearm-making. In the shapes and partly in the ornamentation of guns we can also trace a German tradition which dated back, evidently, to the sixteenth century. In spite of the very early appearance of the French-type flintlock on Russian arms (*c.*1625), it was not until the last third of the seventeenth century that this mechanism was being produced more or less regularly for Russian guns,[31] while, on the whole, the French style became established in Russia only from the time of the reign of Peter the Great onwards.

The basic stylistic features of the pistols produced at the Kremlin Armoury remained stable, in the main, throughout the seventeenth century. The highest degree of stability applied to the general shape of the pistols, while the type of lock was a rather mobile and developing element, though preference was shown for the Dutch-type snaphance. In pistol ornamentation we see the unchanging custom of adorning the stock with silver plates, the number of which diminished towards the end of the seventeenth century. Ornaments on metal show considerable dynamic tendencies: in the course of the seventeenth century, they grow gradually more and more intricate, and in the second half of the century, pictures of animals and other motives are often intertwined with floral ornaments. At that time decoration covers much more of the metal than before, attracting attention by its light relief patterns against nielloed background or by bright spots of gilt or enamel. The ornament develops in a similar way on the metal goods made by Moscow artisans working in other applied arts.[32] This is understandable if we bear in mind that armourers, gunmakers, goldsmiths and silversmiths worked in adjoining workshops, catered for the same range of customers, followed the common tendencies in the evolution of applied arts and, finally, drew on the same ornament sources for the decoration of their goods.

No concrete data have yet been discovered about pattern-books of engravings or drawings with designs for ornament

used by Moscow decorators. However, there is no doubt that here, just as in Western Europe, such ornamental pattern-books were used. Some of them were probably brought to Moscow by foreign armourers, but most designs were doubtless composed in the Kremlin workshops. This is borne out by the fact that there was a considerable number of ornament designers among the staff of the workshops, where they worked sometimes as chisellers too.[33] Some floral motives in metal decoration were very characteristic of Moscow-made articles and were traditional. In carved bone inlay, wood carving and partly in chiselling, examples of the folk art of the Russian North, where bone carving had flourished for many centuries, sometimes served as models for ornamentation. This style was brought to the Armoury and other Kremlin workshops by the bone carvers who, according to archive data, had come from Kholmogory (to the south-east from Arkhangelsk) – a leading centre of that craft. And, last but not least, the arms and other masterpieces of applied art, which, due to the extensive political and economic relations of the Russian State, were continuously arriving at the tsar's treasury from various countries in the West and East, were a regular and important source of ornament to the Moscow artisans, too.

It is quite natural that the conditions in the Kremlin Armoury gave birth to the synthesis of various national styles in firearms ornamentation, but this phenomenon developed in an environment that possessed an old handicraft culture, rich artistic traditions and tastes of its own. These factors played the decisive part in the formation of the original Russian, or rather Moscow, style which manifested itself, with particular clarity, in the pistols and guns produced by Kremlin armourers. It is no exaggeration to say that in no later period were Russian firearms distinguished by so prominent a national style, or character, as that which had been created by the gun-makers and decorators of the Kremlin Armoury in the seventeenth century.

[1] Between 1632 and 1667 Russia waged three wars with Poland and one war with Sweden.

[2] I must point to the possibility of a lack of conformity between the transcription of some European names given here and their real historical spelling, because I have had to keep to the spelling in Russian seventeenth-century documents.

[3] S. M. SOLOVIOV: *Istoria Rossii s drevneishikh vremion* [History of Russia since ancient times], Book V, Moscow [1961], p.161 ff.; Y. ARSENIEV: *K istorii Oruzheinogo Prikaza* [On the history of the Ordnance Office in the seventeenth century], Petersburg [1904], p.8 ff.

[4] S. K. BOGOYAVLENSKY: *Vooruzhenie russkikh voisk v XVI–XVIIvv* [Weapons and armours of the Russian Army in the sixteenth–seventeenth centuries], *Istoricheskiye zapiski*, No.4 [1938], p.279.

[5] I. ARSENIEV, *loc. cit.*

[6] J. HAMEL: *Opisanie Tulskogo oruzheinogo zavoda* [Description of the Tula arms factory], Moscow [1826], p.20. S. M. SOLOVIOV, *op. cit.*, pp.617, 618. S. K. BOGOYAVLENSKY, *op. cit.*, pp.269, 281.

[7] Y. ARSENIEV, *op. cit.*, 3, 10, 22, 24, 25.

[8] *Ibid.*, pp.4, 5, 13, and 14.

[9] For details see N. B. BAKLANOV, V. V. MAVRODIN and I. I. SMIRNOV: *Tulskiye i Kashirskiye zavody v XVII v.* [Tula and Kashira Works in the seventeenth century], Moscow-Leningrad [1934], p.12 ff.

[10] S. M. SOLOVIOV, *op. cit.*, Book VI, Moscow [1961], p.532.

[11] *Ibid.*, p.533 ff.

[12] See, for instance, *Opis Oruzheinoy Palaty 1687 goda* [Inventory of Armoury for 1687], a manuscript at the Central State Archives of Ancient Acts (Moscow), Book No.936. Cf. *Opis Moskovskoi Oruzheinoi Palaty* [Inventory of Moscow Armoury], Part V, Book 4, Moscow [1885].

[13] Y. ARSENIEV, *op. cit.*, pp.34, 36; S. K. BOGOYAVLENSKY, *op. cit.*, p.277 ff.

[14] Y. ARSENIEV: *Oruzheinii Prikaz pri Tsare Mikhaile Fiodoroviche* [The Ordnance Office under Tsar Mikhail Fiodorovich], Petersburg [1903], pp.25–6.

[15] The engraving was carried out by the artist from his own drawing made during A. Winius's stay in Amsterdam (see J. WUSSIN: *Cornel Vischer*, Leipzig [1856], pp.84–7, 263–5). The reproduction in Fig.19 is taken from the facsimile edition: D. A. ROVINSKY: *Materialy dlia russkoi ikonografii* [Materials for Russian iconography], issue III, Petersburg [1884], sheet 81.

[16] Y. ARSENIEV: *K. istorii . . .*, pp.66–8.

[17] J. HAMEL, *op. cit.*, p.40 ff.; Y. ARSENIEV: *K istorii . . .*, pp.10, 16, 17, 24–6, 64, 65.

[18] N. B. BAKLANOV *et al.*, *op. cit.*, p.63.

[19] See S. K. BOGOYAVLENSKY, *op. cit.*, p.277 ff.

[20] The fact that this pistol is one of a pair is borne out by the inscription about ownership engraved on the ring of the butt-cap where the word *pistoli* ('pistols') was put in the plural.

[21] See, for instance, Y. ARSENIEV: *K istorii . . .*, pp.31, 39.

[22] According to archive data for 1687–8, the Kremlin Armoury had about 100 armourers and other craftsmen working in the field of arms decoration (A. VIKTOROV: *Opisaniye zapisnykh knig i bumag starinnykh dvortsovykh prikazov* [Description of records and papers of Ancient Court Offices] Issue II, Moscow [1883], p.452 ff.) For the history of the Armoury see article by G. A. MALITSKI in *Gosudarstvennaya Oruzheinaya Palata Moskovskogo Kremlia*, Moscow [1954], pp.509–60.

[23] See article by K. K. MAMAYEV in *Trudy Otdela drevnerusskoi literatury Instituta russkoi literatury Akademii Nauk SSSR*, XXII, Moscow [1966], pp.342–52.

[24] The Hermitage Museum: samopal Inv. No.3.o.5382, partisan Inv.3.o. No.7928, The Kremlin Armoury: pair of pistols Inv. No.8272, samopal Inv. No.7397.

[25] Arms belonging to Peter the Great at the Kremlin Armoury: boy's gun dated 1688 with Dutch-type lock (Inv. No.7469) and a gun dated 1692 with an English-type lock (Inv. No.7468).

[26] S. K. BOGOYAVLENSKY, *op. cit.*, p.259 ff.; M. M. DENISOVA: *Pomestnaya konnitsa i ee vooruzheniye v XVI–XVII vv* [Landed gentry cavalry and its armament in the sixteenth–seventeenth centuries], *Trudy Gosudarstvennogo Istoricheskogo Muzeya*, issue XX, Moscow [1948], p.31 ff.

[27] S. K. BOGOYAVLENSKI, *op. cit.*, pp.260–2; M. M. DENISOVA, *op. cit.*, p.43.

[28] S. K. BOGOYAVLENSKI, *op. cit.*, p.279.

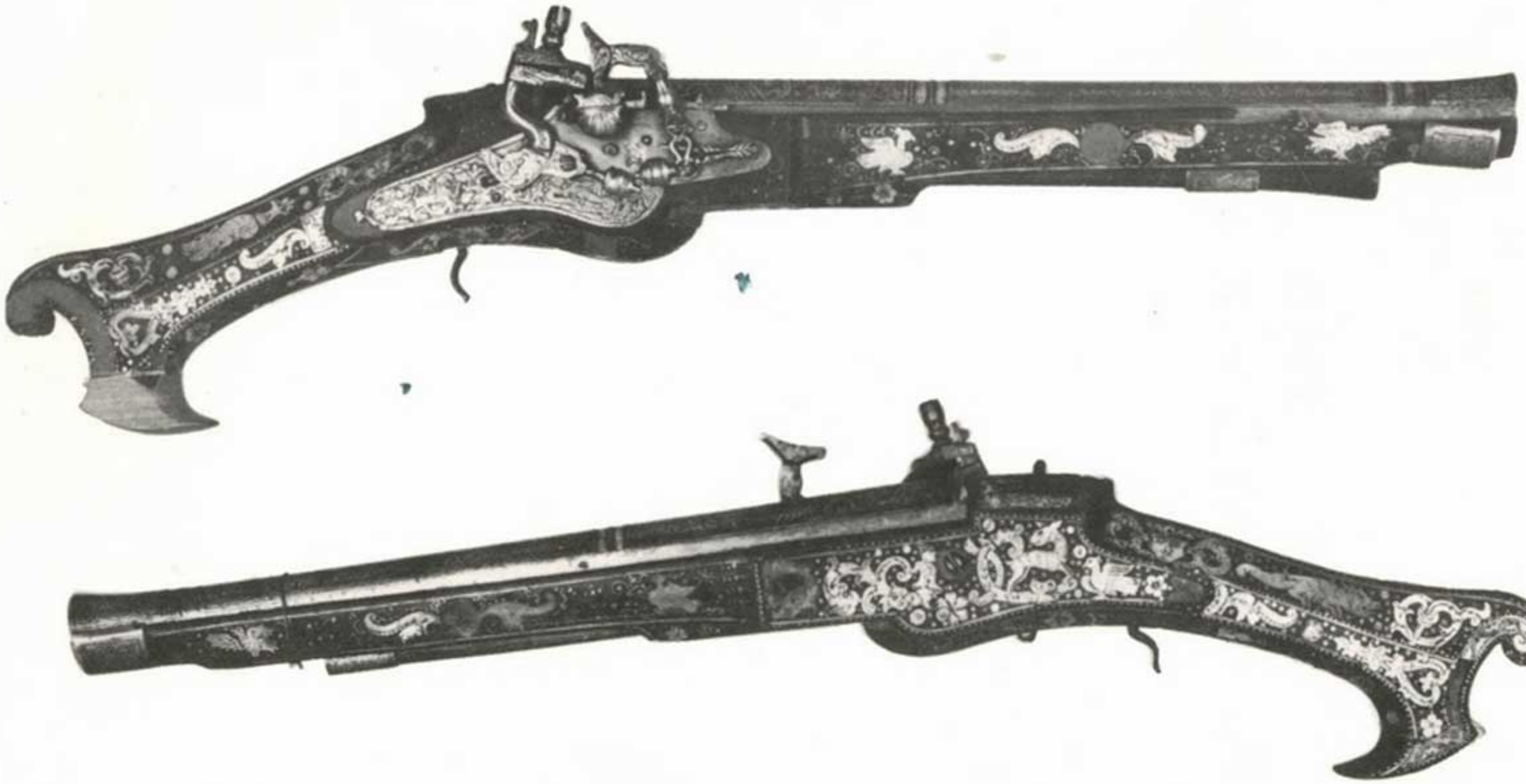
[29] For data on the second half of the seventeenth century see M. M. DENISOVA, *op. cit.*, pp.44–5.

[30] According to 1687–8 archive data (see A. VIKTOROV, *loc. cit.*).

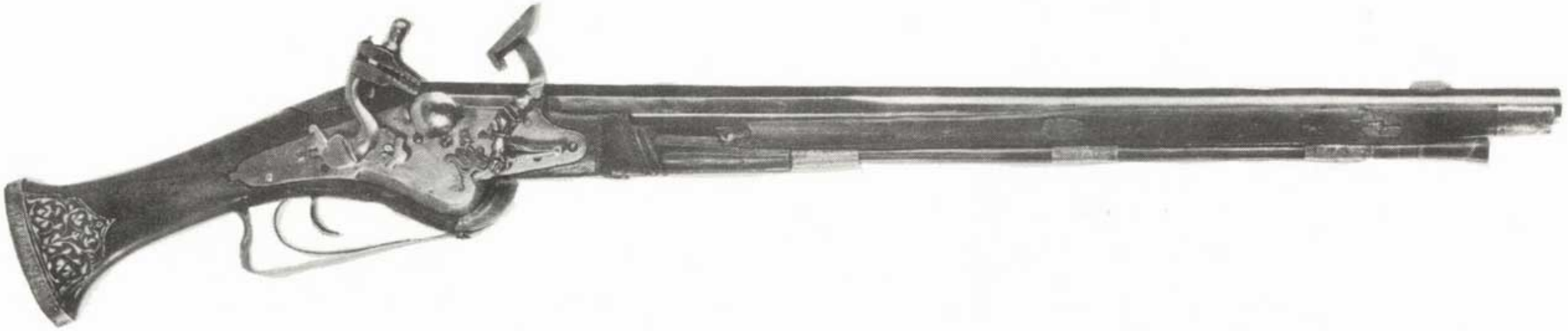
[31] The Kremlin Armoury: gun, Inv. No.7409, by F. T. Ulianov; two-barrel Wender gun, Inv. No.7594, by I. Boldyrev and E. Kuzovlev (*Oruzheinaya Palata* [1954], p.52, Fig.35; p.21, Figs.13, 14); Victoria and Albert Museum: harquebus, Inv. No.228–1919 (C. BLAIR: *European and American Arms*, London [1962], Fig.332). A large number of French-type flintlocks on Russian guns and pistols of the second half of the seventeenth century are also known, but some of these locks have not been attributed yet, while others are foreign imports.

[32] See detailed article by M. M. POSTNIKOVA-LOSSEVA: 'Zolotiye i serebrianniye izdelia masterov Oruzheinoy Palaty' [Gold and silver articles made by the Kremlin Armoury craftsmen] in *Oruzheinaya Palata* [1954], pp.137–216.

[33] V. ZHELEZNOV: *Ukazatel masterov . . . rabotavshikh v Rossii do XVIII veka* [List of artisans . . . having worked in Russia prior to the eighteenth century], Petersburg [1907], Nos.71, 172, 229, 276, 529, 819, 883, 1117.

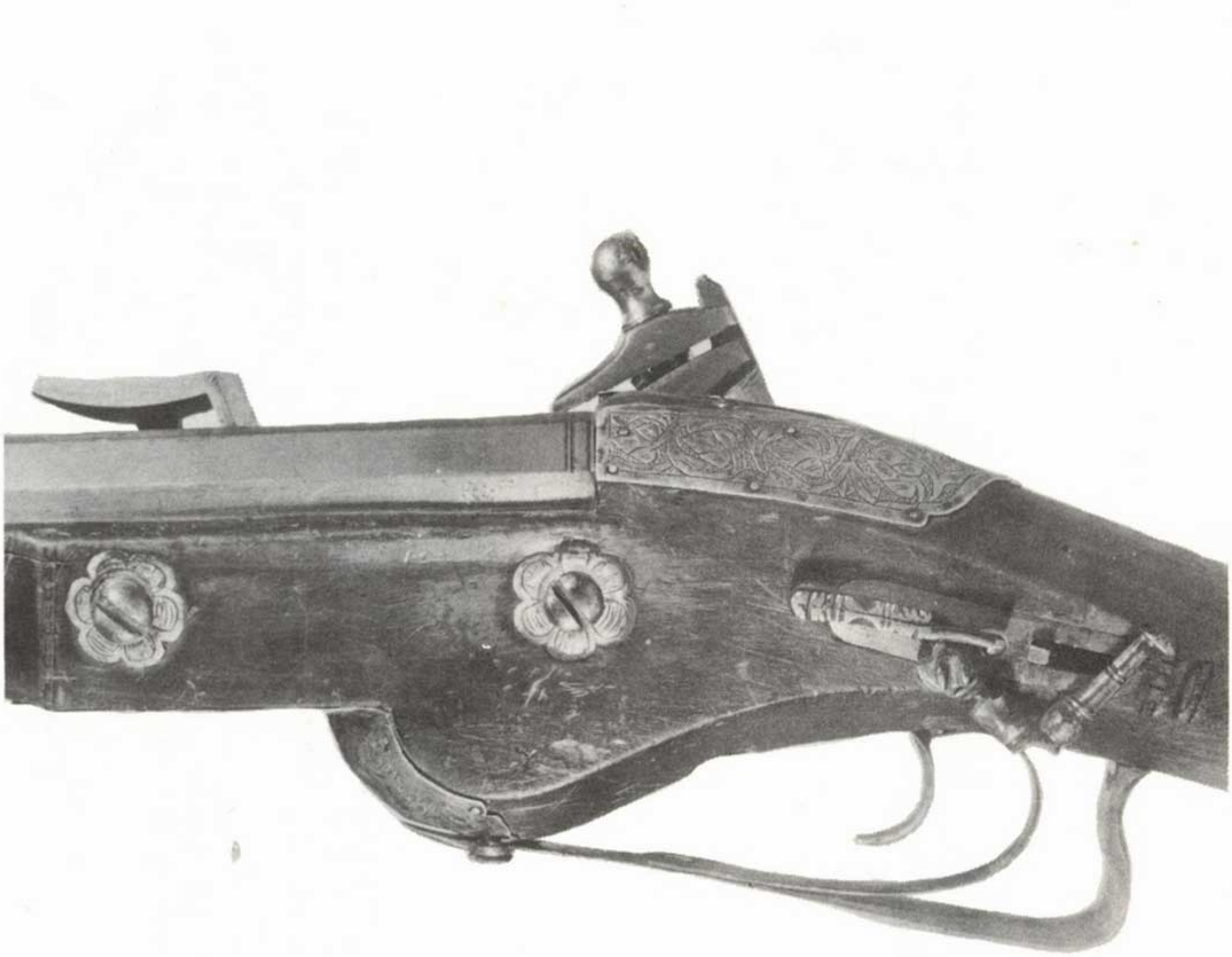


1 and **2**. Snaphance Pistols.
A pair of pistols probably for the tsar Mikhail. Walnut stocks by a late sixteenth-century European (German?) stockmaker; silver mounts. Locks by Pervusha Issayev. L.576 mm., cal. 16.0 mm. Kremlin Workshops c.1616-20 (Kremlin Armoury, Inv. no.8307).

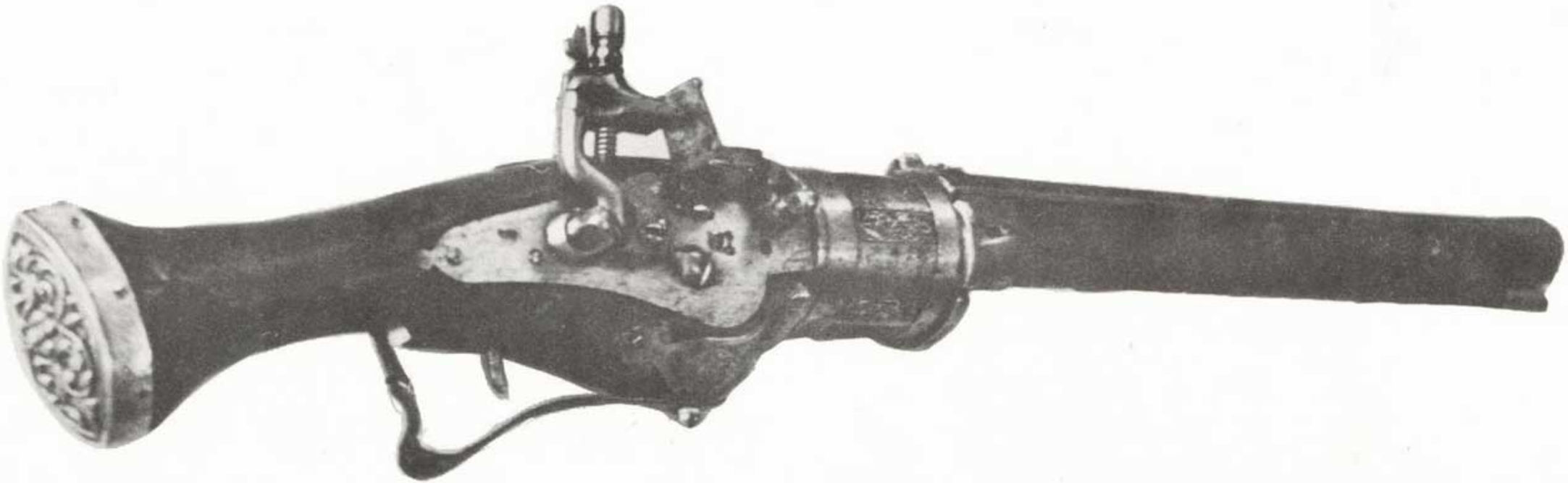


3. Holster Pistol.
Stub twist barrel. Original snaphance lock by Pervusha Issayev was later converted into a kind of snap-lock. Walnut stock, silver mounts. L.744 mm., cal. 13.6 mm. Kremlin Workshops, dated 1621/2 (Hermitage Museum, Inv. no. 5768). This is the earliest dated Russian hand firearm.

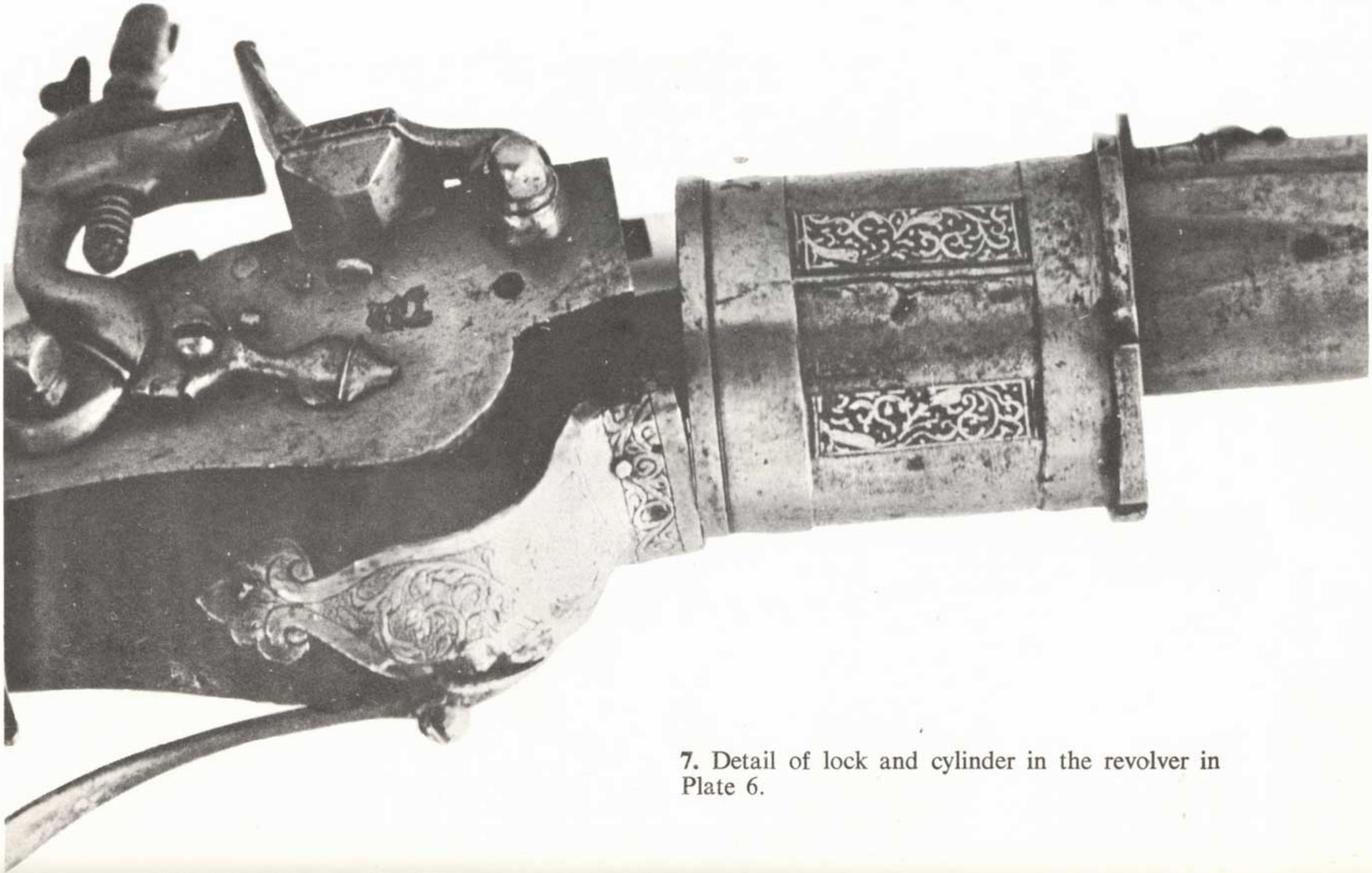
4. Butt-cap of holster pistol in Plate 3.



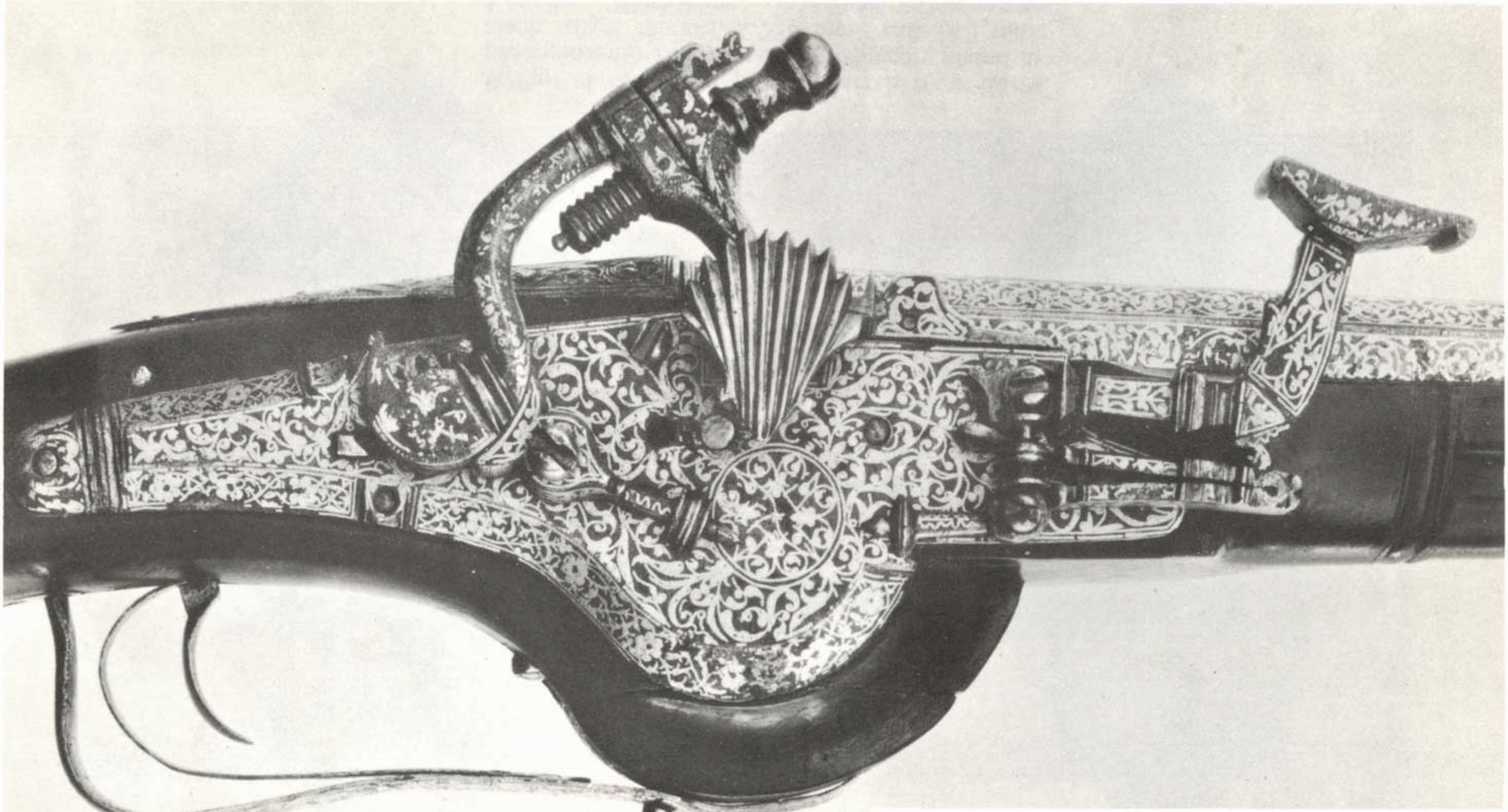
5. Safety-catch on left side of stock of holster pistol in plate 3.



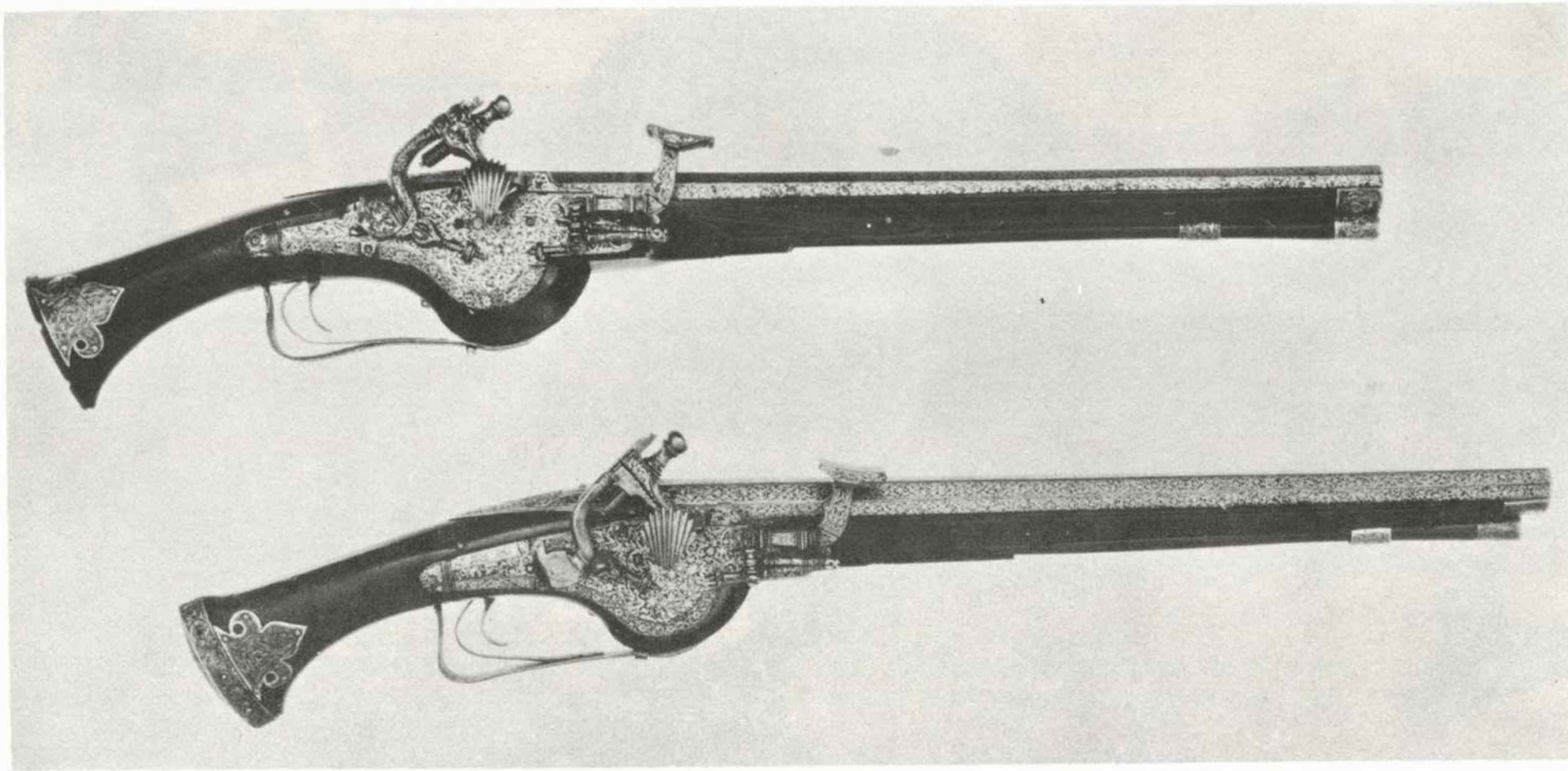
6. Six-shot flintlock revolver probably made for the tsar Mikhail. Lock and cylinder by Pervusha Issayev. Speckled birch stock, silver-gilt mounts (grip-plates missing). L.586 mm. cal. 11.0 mm. Kremlin Workshops, c.1625 (Kremlin Armoury, Inv. no. 8351). This is the earliest known revolver and French-system flintlock of Russian make.



7. Detail of lock and cylinder in the revolver in Plate 6.



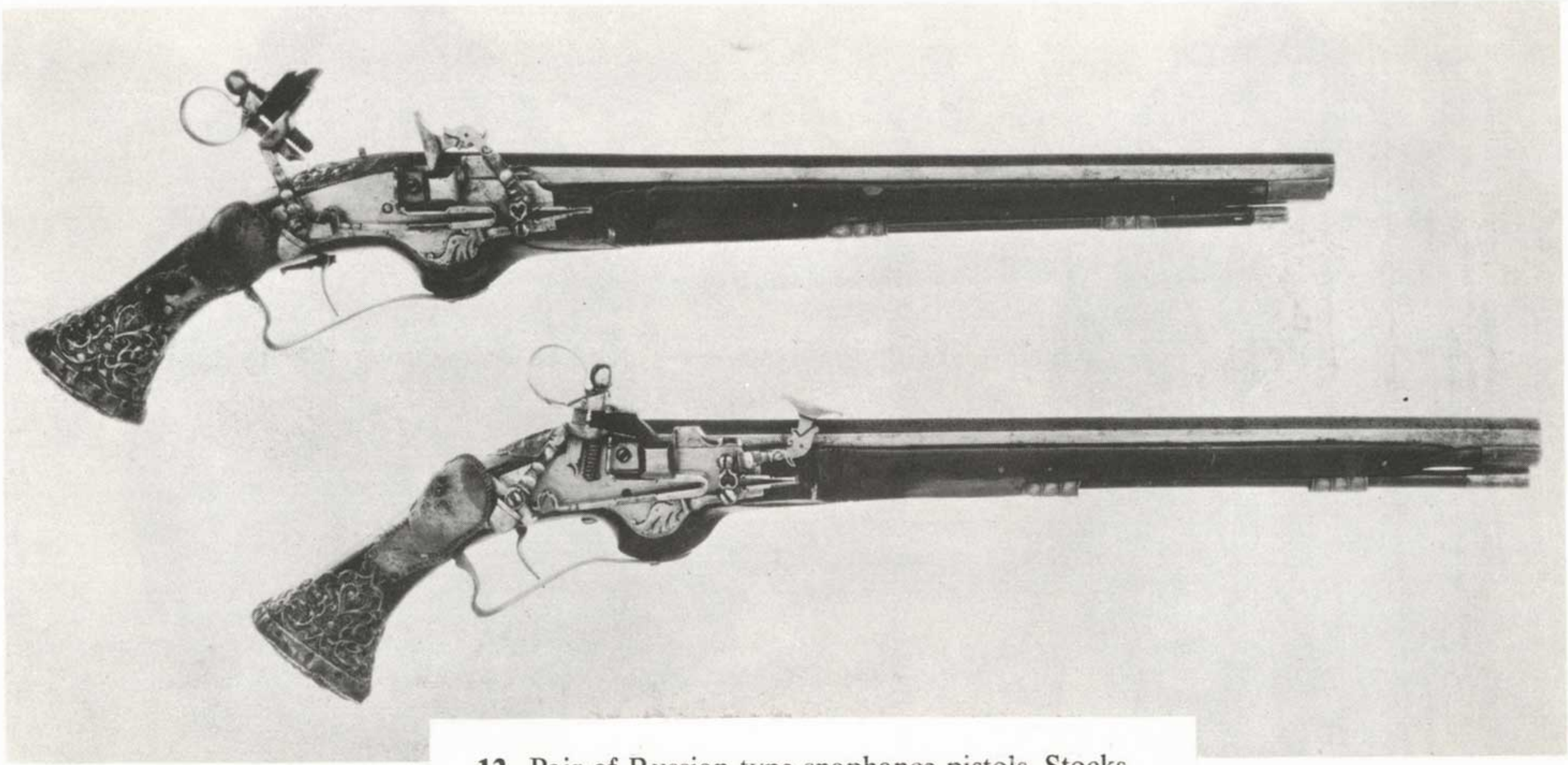
8. Lock detail of one of the pistols in Plate 9 (no. 5098).



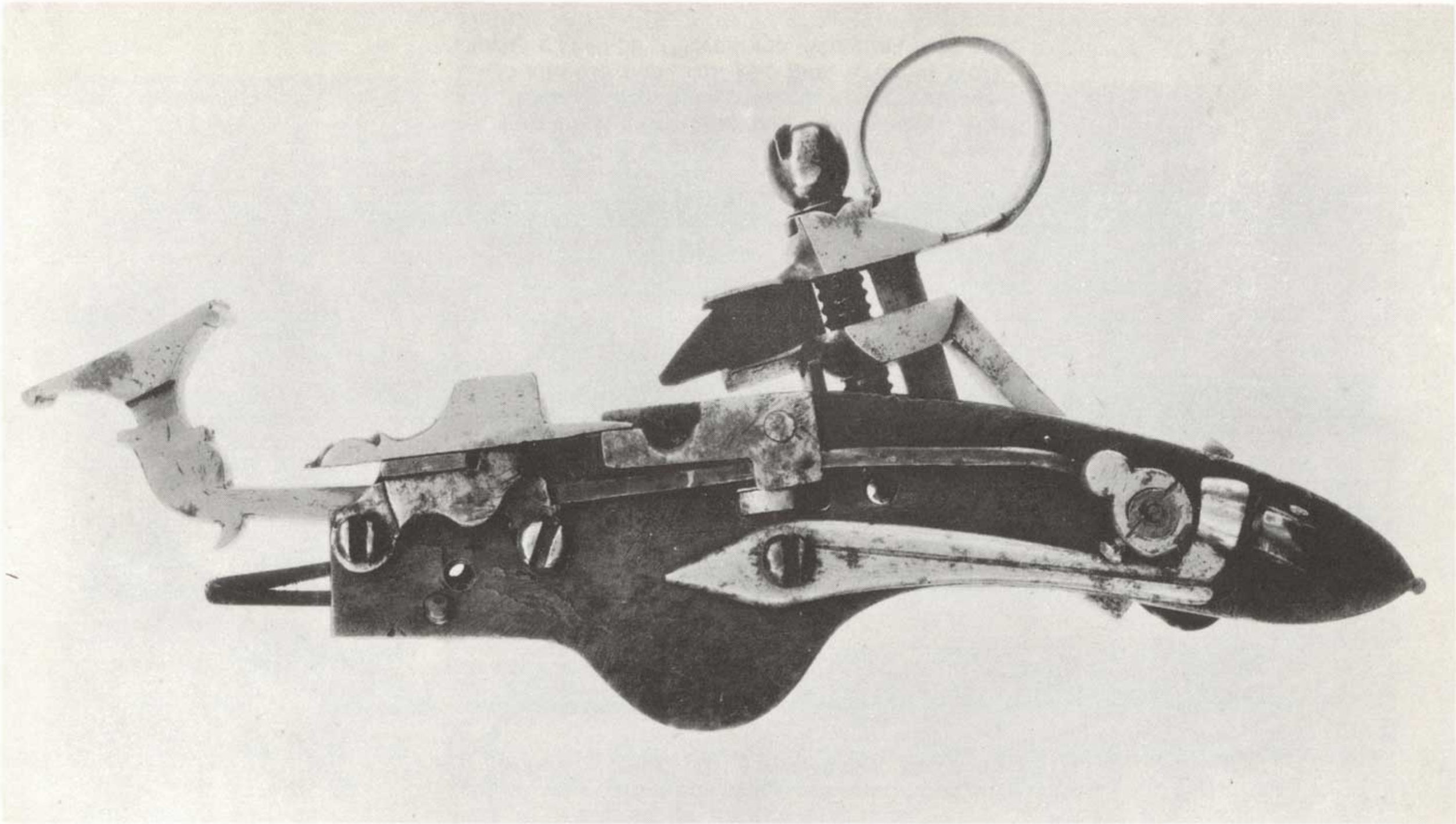
9. Pair of snaphance pistols. Barrels by a European gunsmith I.M. Stocks of mahogany glazed in black, silver mounts. L.576 mm., cal. 14.3 mm. Kremlin Workshops, c.1640-50 (Hermitage Museum, Inv. nos. 5098 and 5103).

10. Butt-cap of one of the pistols (no. 5103) in Plate 9.

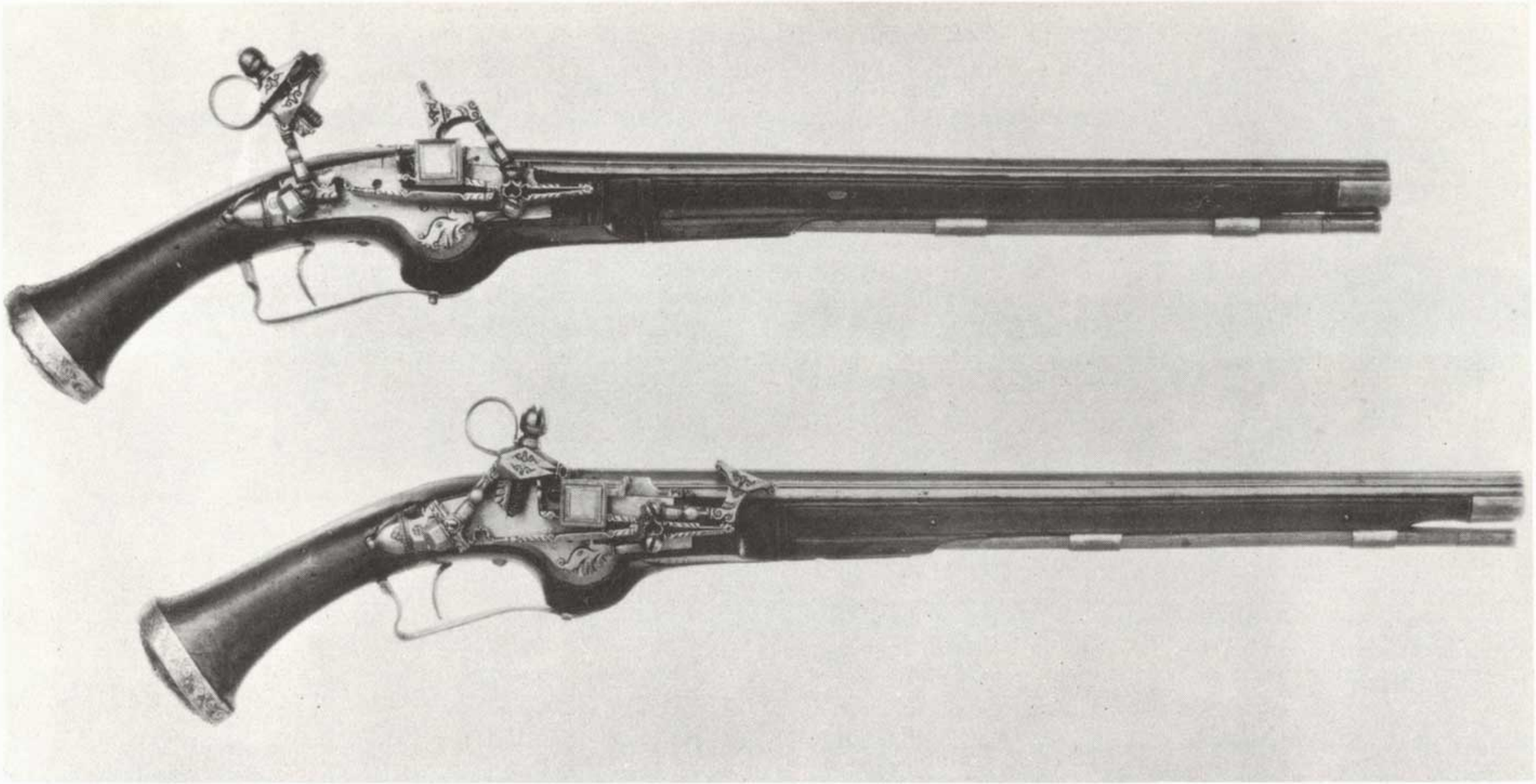
11. Butt-cap of pistol in Plate 14.



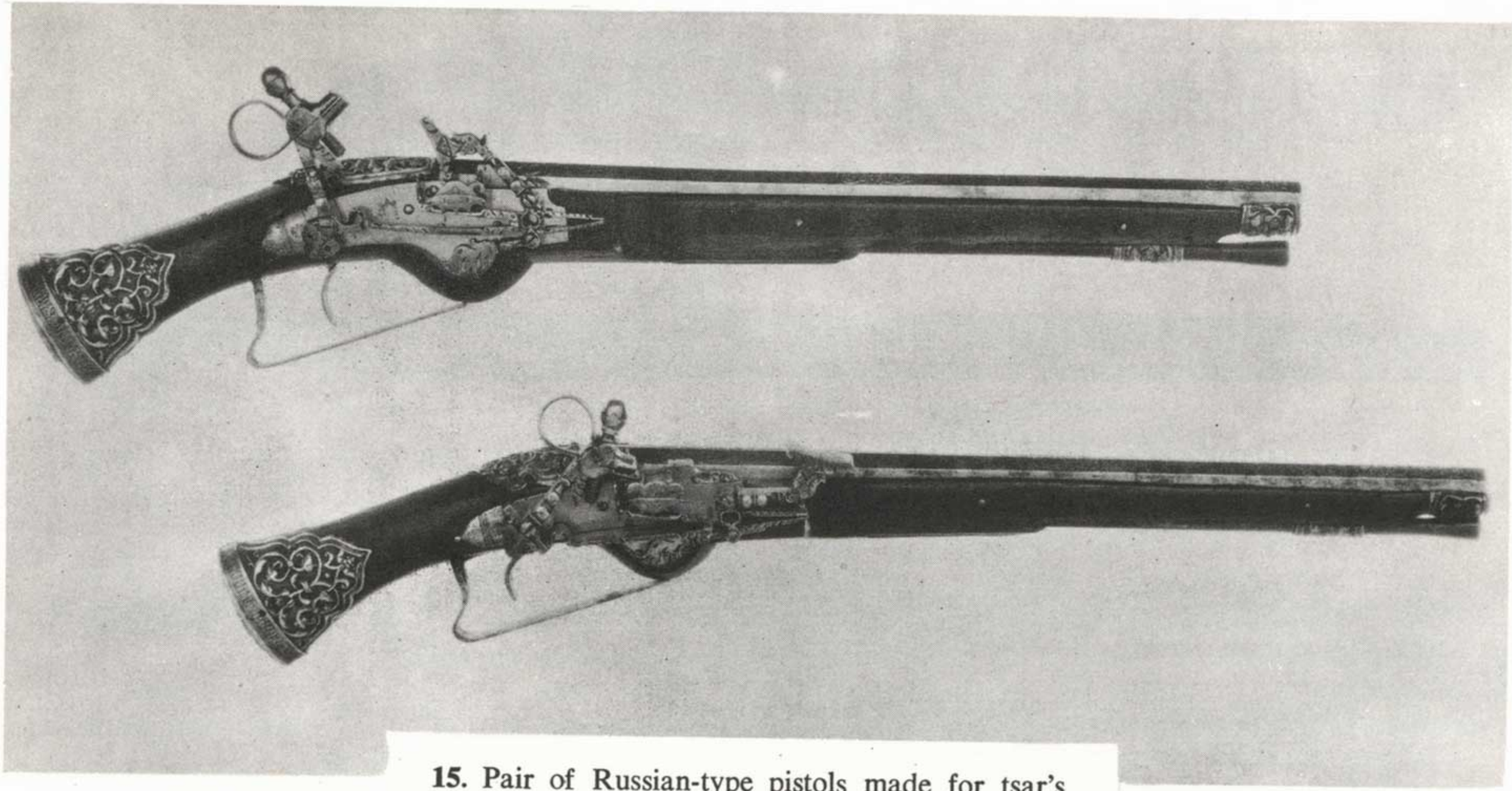
12. Pair of Russian-type snaphance pistols. Stocks of birch, coloured as mahogany, brass forestock mounts, silver grip-plates and butt-caps. L.585 and 587 mm., cal. 15 mm. Kremlin Workshops, c.1630-40 (Hermitage Museum, Inv. no. 5736).



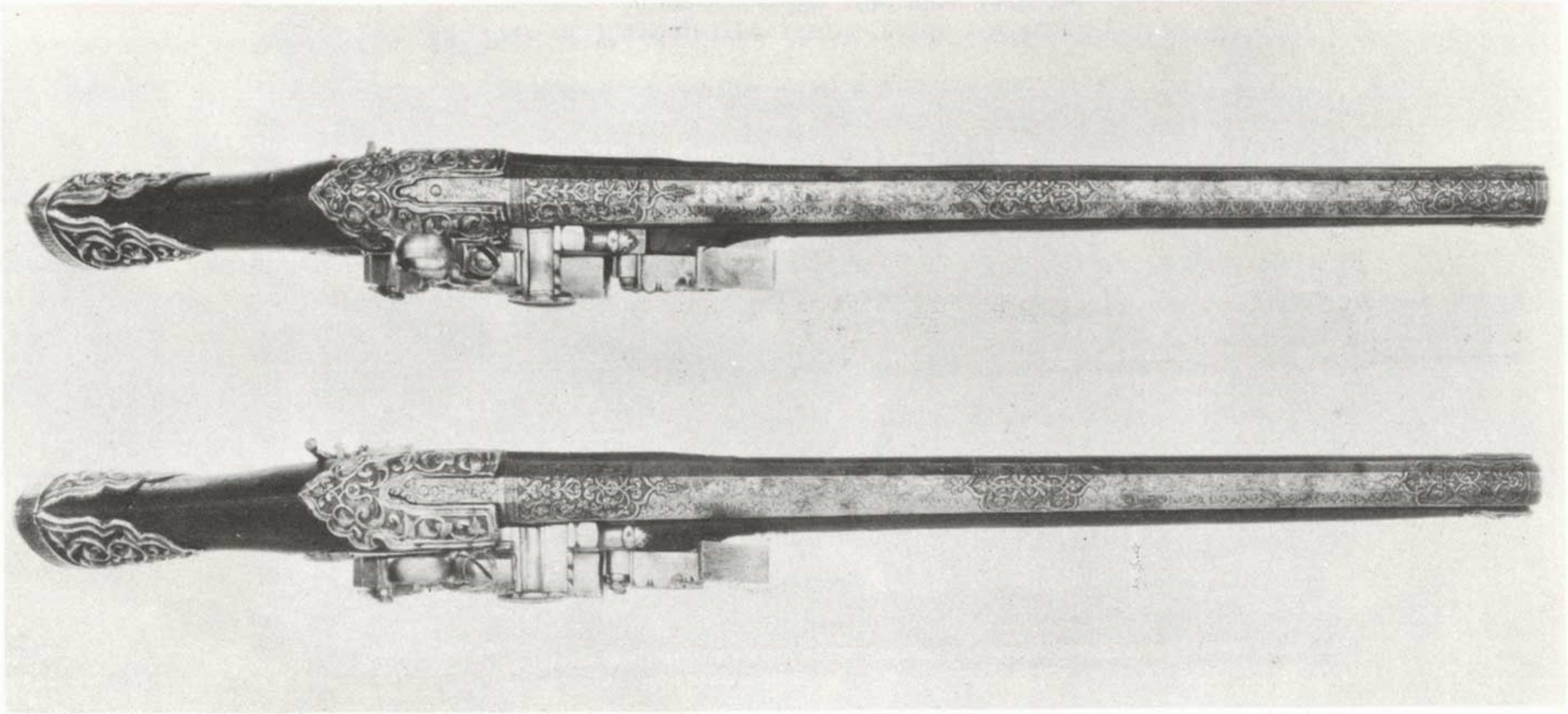
13. Inside of the lock of one of the pistols in Plate 12.



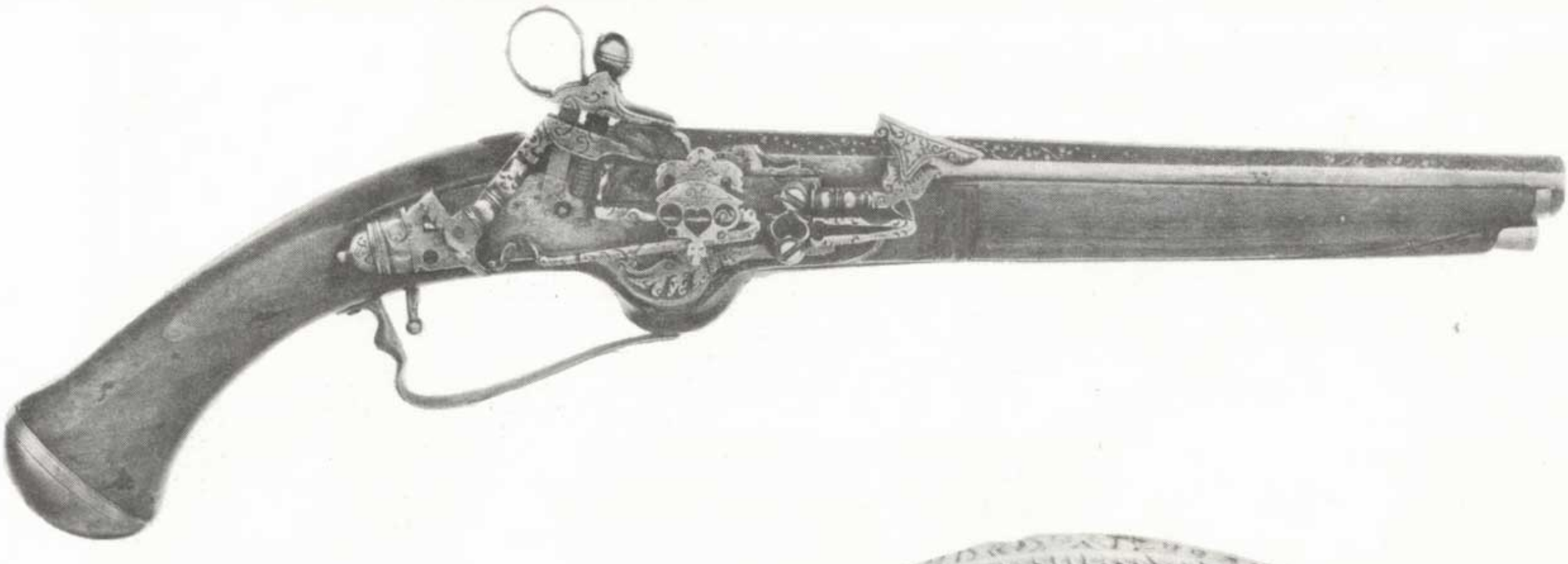
14. Pair of Russian-type snaphance pistols. Walnut stocks, gilded brass mounts, silver butt-caps. L.635 and 639 mm., cal. 14.5 mm. Kremlin Workshops, c.1640-50 (Hermitage Museum, Inv. no. 5730).



15. Pair of Russian-type pistols made for tsar's dapifor A.B. Mussin-pushkin. On one lock the mark of a master Fiodor (?). Mahogany stocks, silver mounts. L 587 mm., cal. 13.5 mm. Kremlin Workshops, c.1650 (Hermitage Museum, Inv. nos. 5765 and 7763).

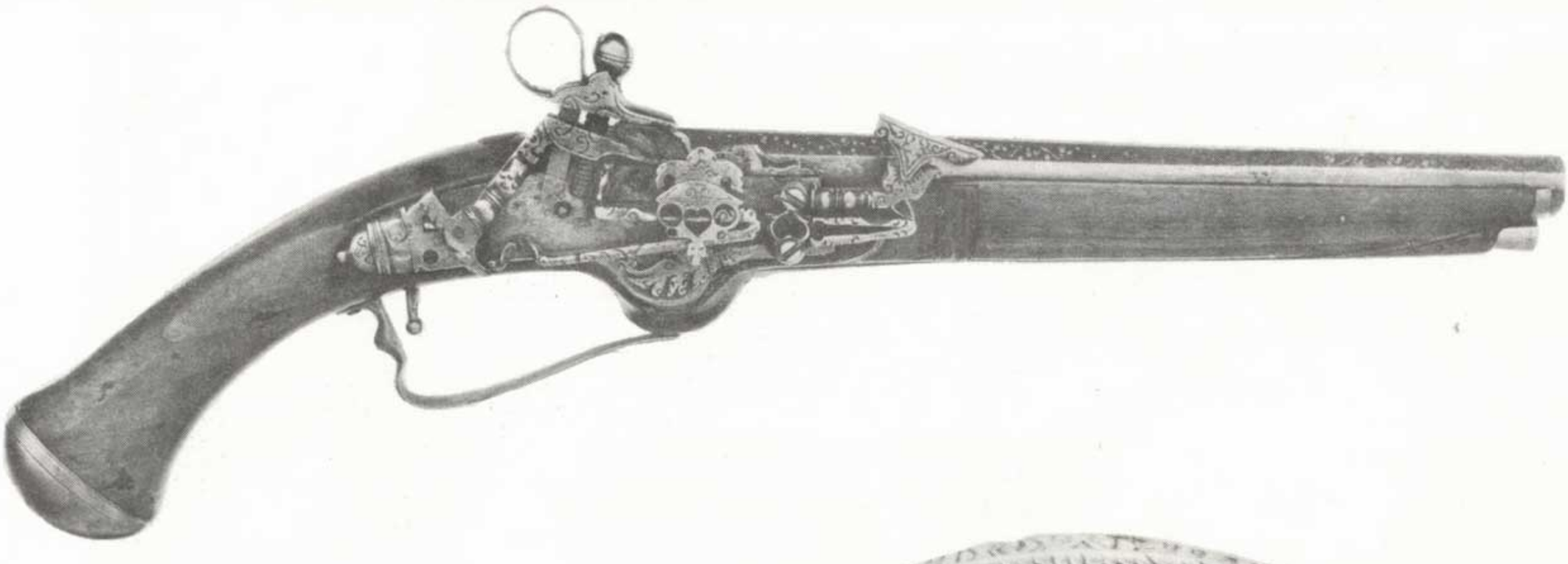


16. Top view of the pistols in Plate 15.



17. Russian-type snaphance pistol. Walnut stock, steel mounts. L.475 mm., cal. 12.6 mm. Moscow (or Tula?) c.1650-60 (Hermitage Museum, Inv. no. 828).

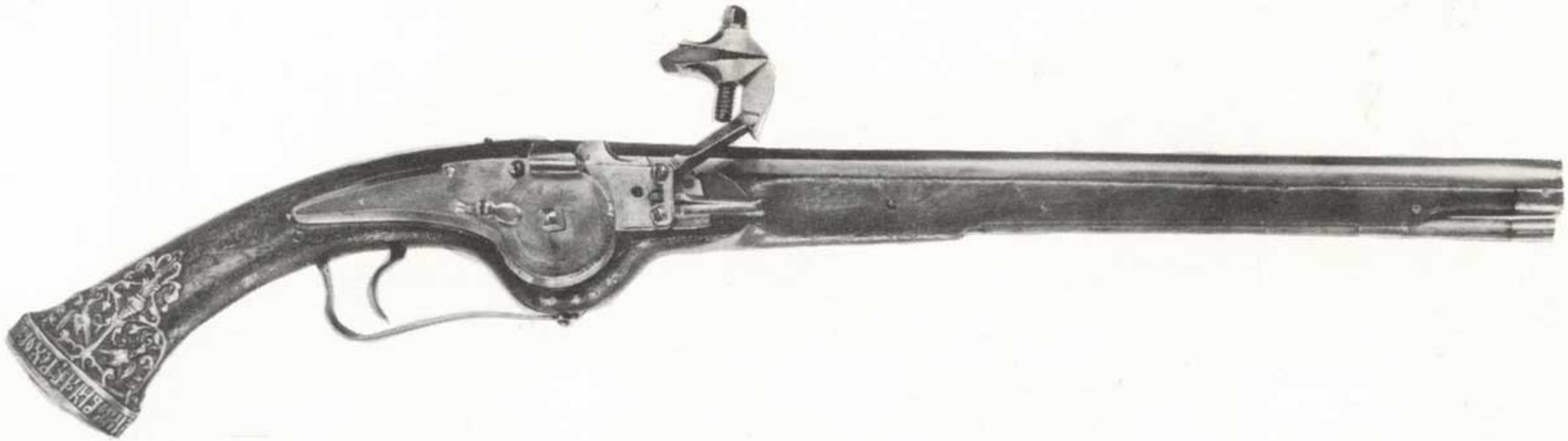
18. Butt-cap of one of the pistols (no. 7763) in Plate 15.



17. Russian-type snaphance pistol. Walnut stock, steel mounts. L.475 mm., cal. 12.6 mm. Moscow (or Tula?) c.1650-60 (Hermitage Museum, Inv. no. 828).

18. Butt-cap of one of the pistols (no. 7763) in Plate 15.

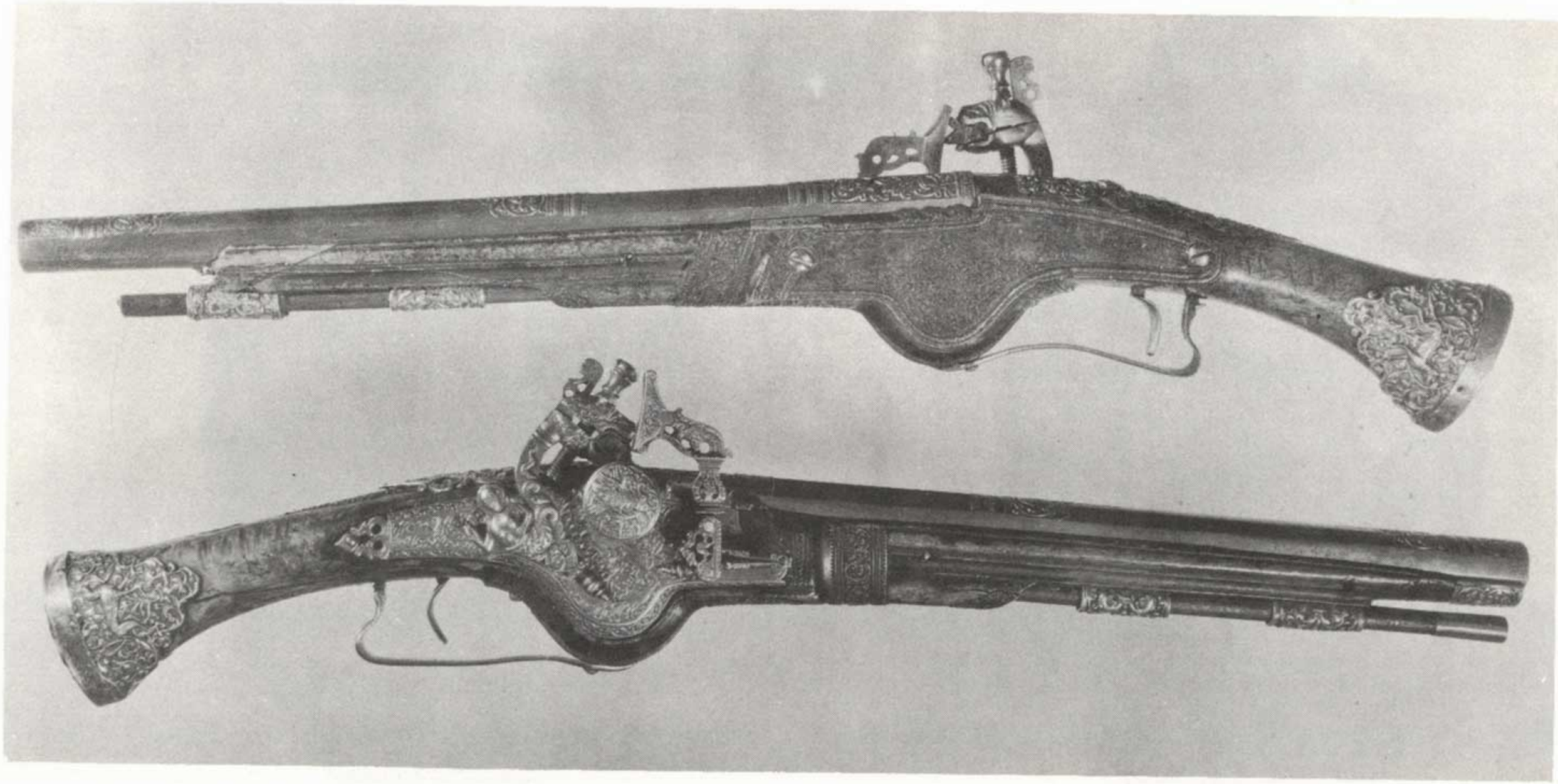
19. Andreas Winius, arms commissioner of the tsar Alexei Mikhailovich, during his stay in the Netherlands in 1653. Engraving by Cornelius Visscher, after his own drawing. Amsterdam, c.1653.



20. One of a pair of wheel-lock pistols made for V. V. Brekhov, Secretary of the Government Offices 1654-72. Walnut stock, steel forestock mounts, silver grip-plates and butt-caps. L.619 mm., cal. 14.9 mm. Kremlin Workshops, c.1660 (Hermitage Museum, Inv. no. 7762).

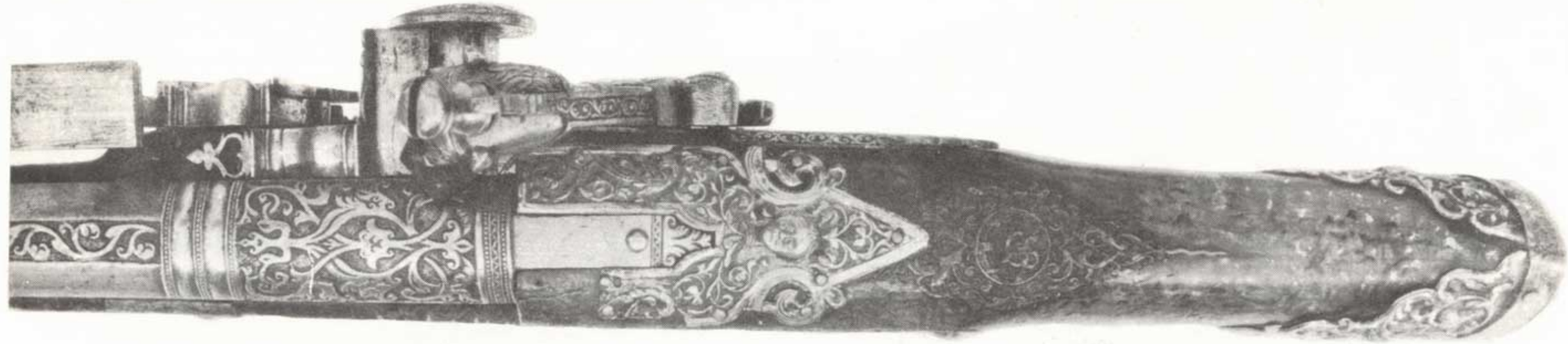
21. Butt-cap of the above pistol.

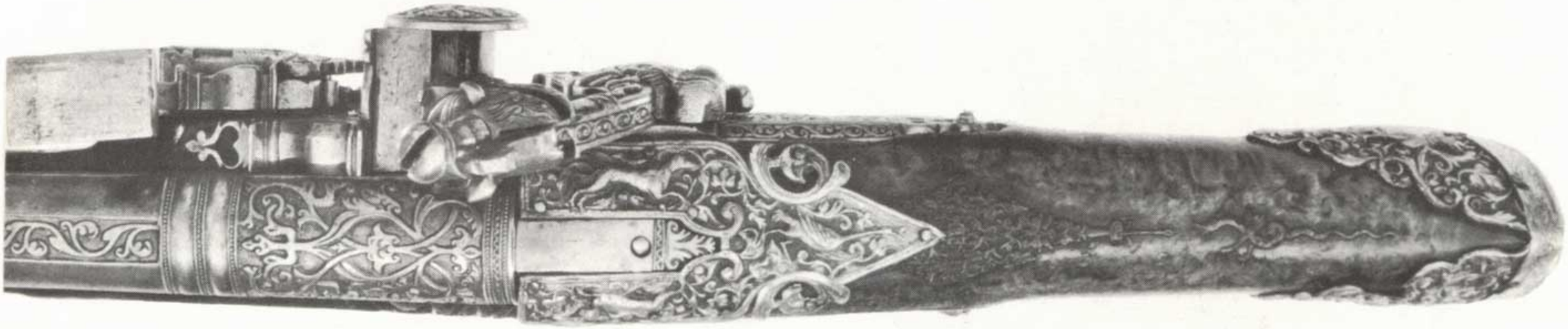
22. Grip-plate of the pistol in Plate 20.



23. Pair of snaphance pistols. Stub twist barrel. Speckled (Karelian) birch stocks signed E.K. by stockmaker Evtikhii Kuzolev. Silver-gilt mounts, L.541 mm., cal. 15.1 mm. Kremlin Workshops, c.1660-70 (Hermitage Museum, Inv. no. 5958 and 5964).

24 and **25.** Butt-caps of the pistols in Plate 23.

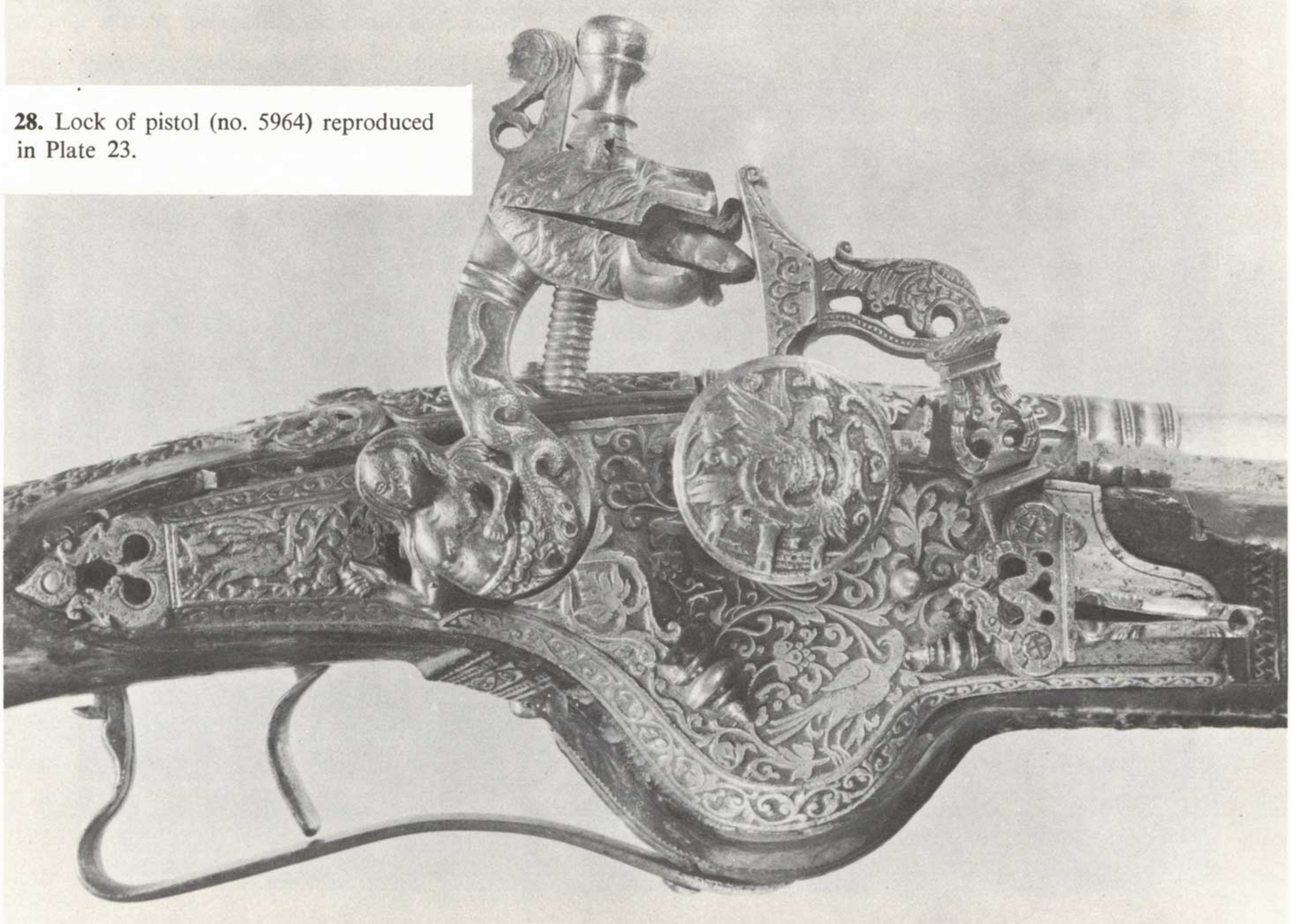


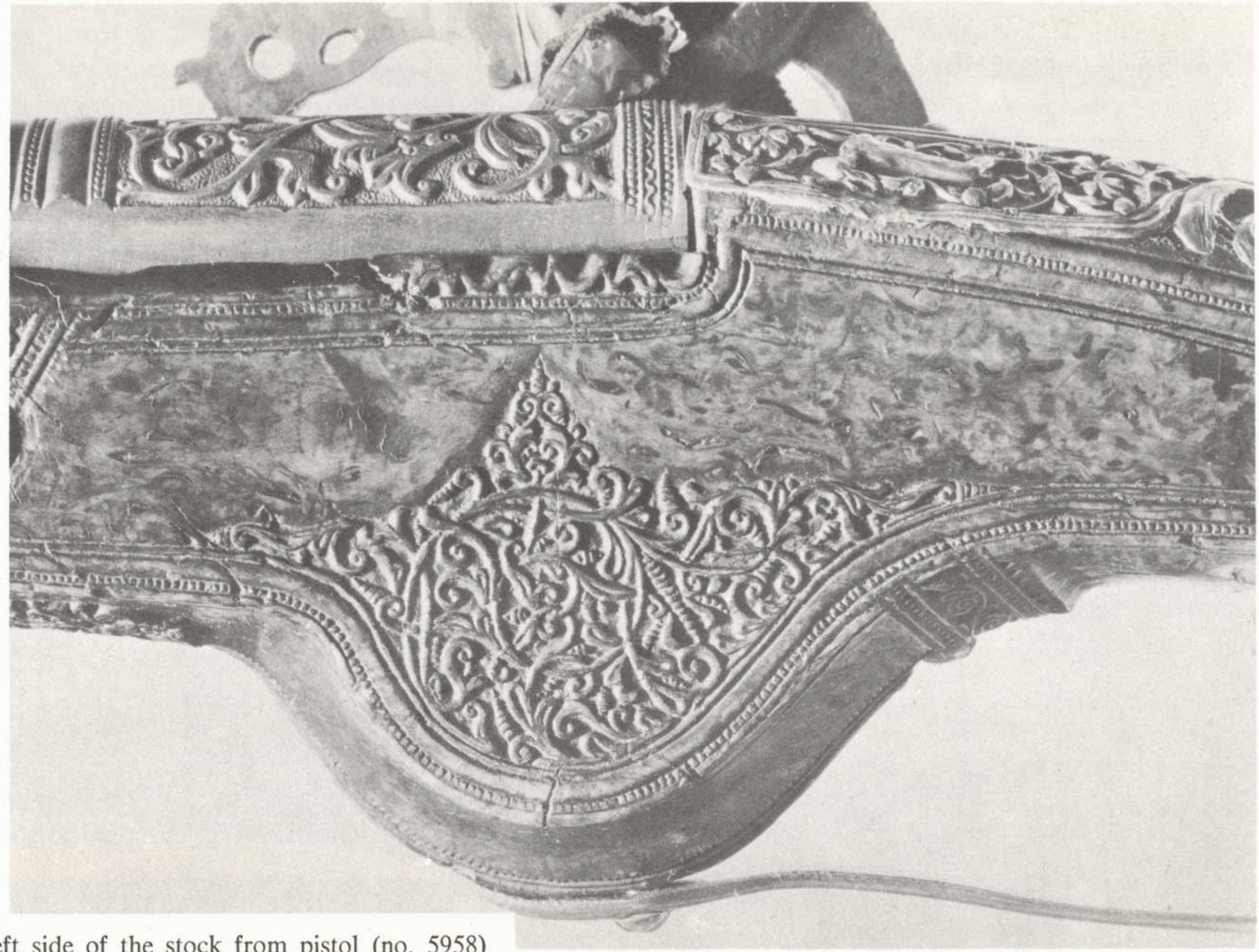


26. Top view of the pair of pistols in Plate 23.

27. Grip-plate of pistol (no. 5958) in Plate 23.

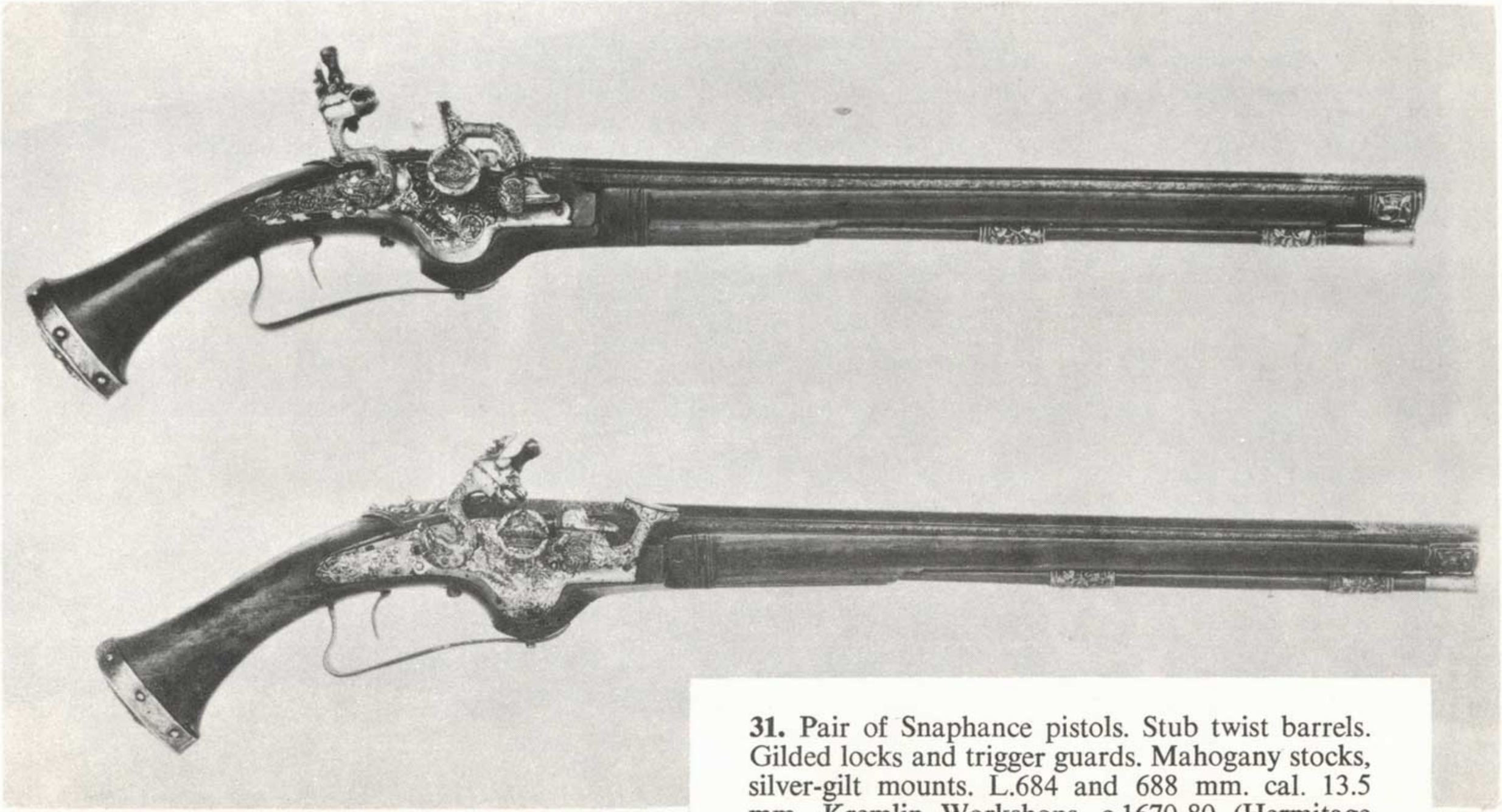
28. Lock of pistol (no. 5964) reproduced in Plate 23.



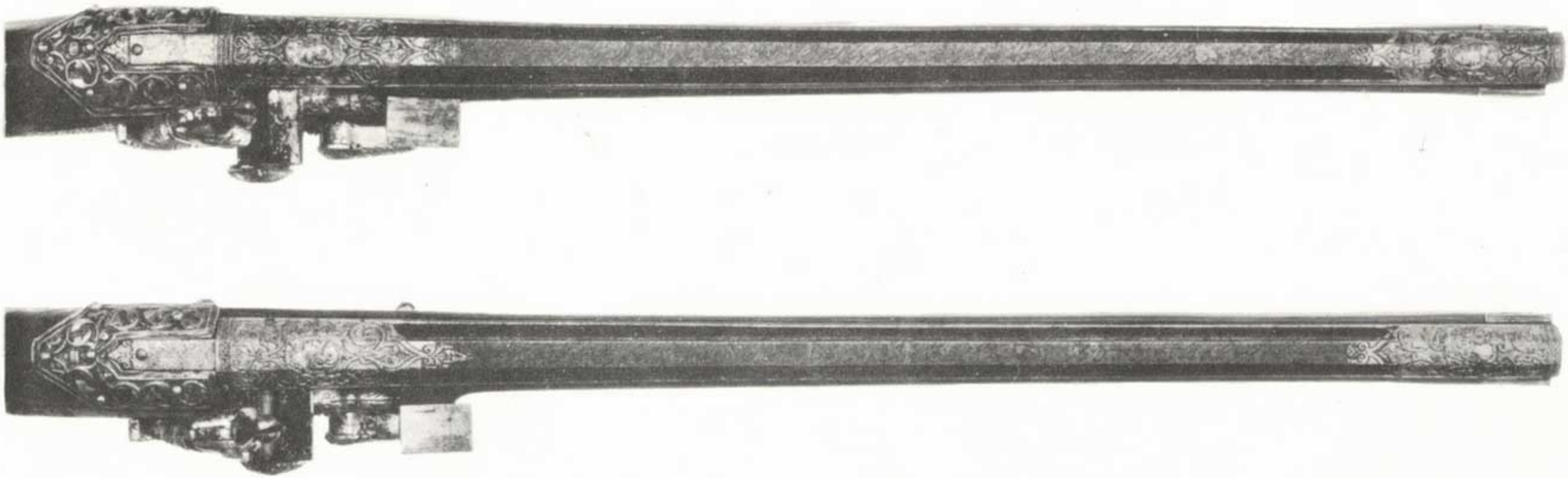


29. Left side of the stock from pistol (no. 5958) in Plate 23.

30. Grip-plate of pistol (no. 5964) in Plate 23.



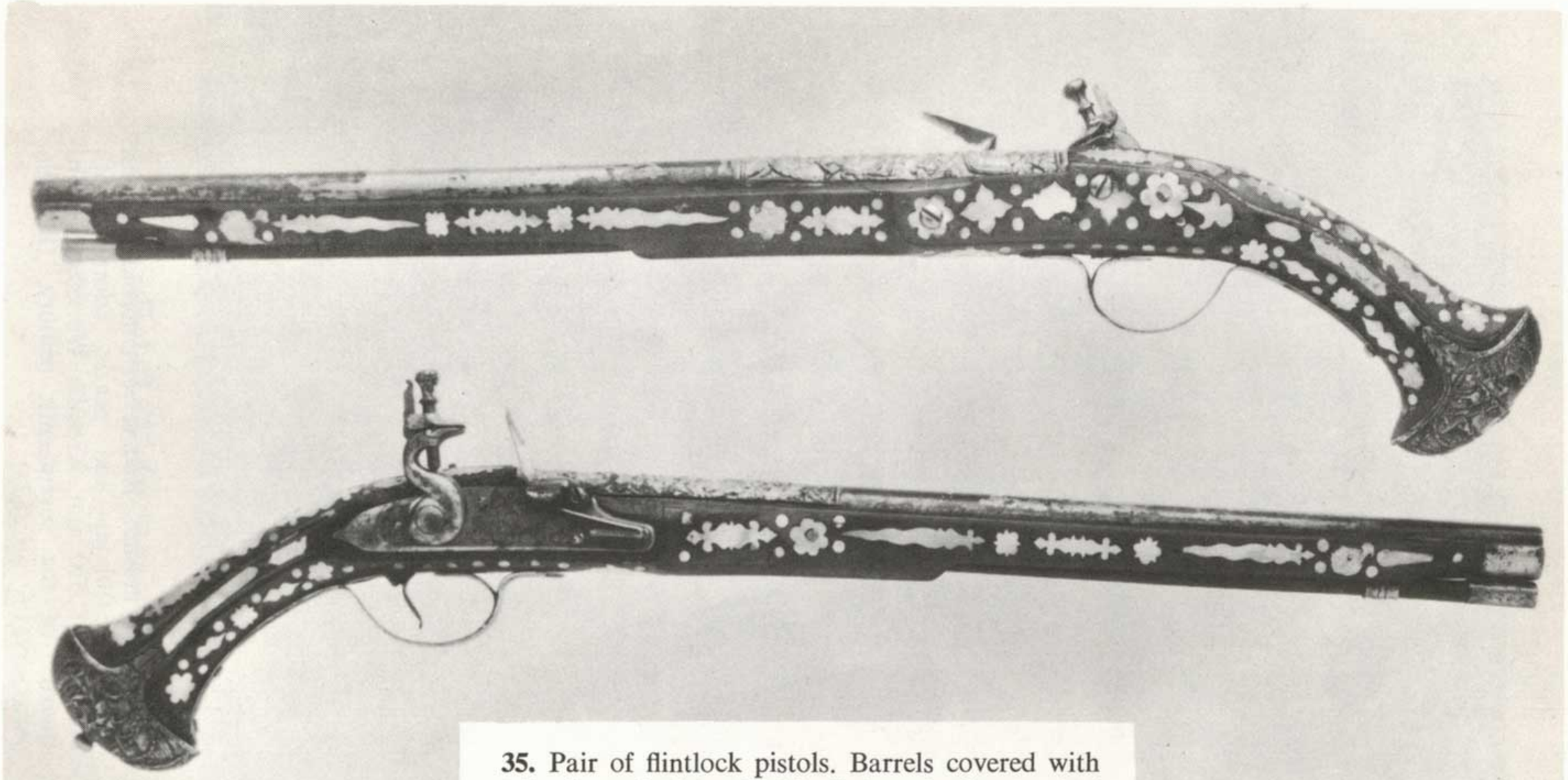
31. Pair of Snaphance pistols. Stub twist barrels. Gilded locks and trigger guards. Mahogany stocks, silver-gilt mounts. L.684 and 688 mm. cal. 13.5 mm. Kremlin Workshops, c.1670-80 (Hermitage Museum, Inv. no. 7764).



32. Top view of the pistols in Plate 31.

33. Butt-cap of one of the pistols in Plate 31.

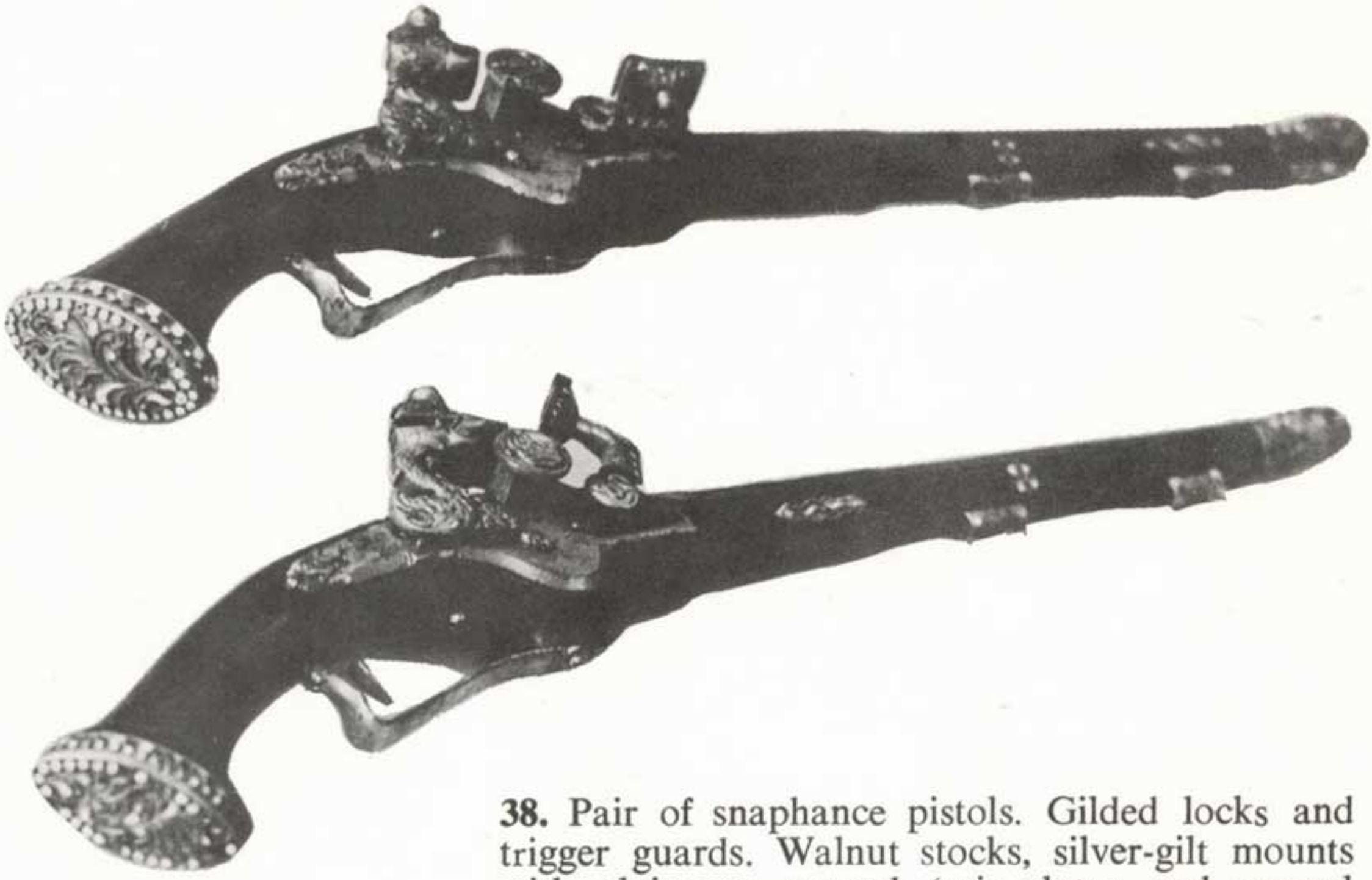
34. Lock of one of the pistols in Plate 31.



35. Pair of flintlock pistols. Barrels covered with foil silver, in breech chiselled and gilt; marked IC (?). Locks engraved and gilt. Walnut stocks inlaid with mother-of-pearl; steel guilded mounts, pommels chiselled and gilt. L.581 mm., cal. 13.5 mm. Kremlin Workshops (probably by Dutch and Russian craftsmen), c.1660-70 (Hermitage Museum. Inv. no. 5739).

36. Pair of holsters. Red velvet embroidered with gold wire-ribbons and pearls, adorned with emeralds. L.510 mm. Kremlin Workshops, third quarter of the seventeenth century. (Kremlin Armoury, Inv. no. 8833).

37. Left side of holsters in Plate 36.



38. Pair of snaphance pistols. Gilded locks and trigger guards. Walnut stocks, silver-gilt mounts with cloisonne enamel (grip-plates and several minor details lost). L.636 mm., cal. 13.0 mm. Kremlin Workshops, 1670-90 (Kremlin Armoury, Inv. no. 8301).

39. Butt-caps of the above pair of pistols.

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