A particular wheellock pistol in Turin

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In Turin some hundreds of ancient weapons that belonged to the collection of Palazzo Madama are in temporary storage (so probably, as it frequently happens in Italy, final) at the local National Artillery Museum at this moment located in a central barrack closed to the public.

Among these stands out for its elegance a long[1] saddle wheellock pistol manufactured in Nuremberg in the late sixteenth century or in the early years of the following one.

The weapon appears also interesting from a technical point of view since it has a particularly safety system, used only rarely and, to our knowledge, only on pistols of German origin.

It is appropriate to start by saying that safety systems for wheellock weapons, at least as I know, have not ever been the object of special study[2]. Only Arne Hoff[3] has published in a line illustration the schemas of some of some devices, without however providing a

[1] The total length is 67 centimetres.

[2] The wheellock ignition has been in use from the first years of the XVI century and, for luxury hunting guns, until the second half of the XVIII century. See:
Blackmore, L.H. *Guns and Rifles of the World* London 1965 and Schalkhausser, E. Eine Radschlossbuchse von 1751 aus der Kurbayerischen Gewehrkammer in Munchen in *Waffen- und Kostümkunde* 30 1971.

[3] Hoff, A. *Feuerwaffen* I Braunshweig 1969.

thorough and complete exposure. This is clearly a niche topic within a subject, the wheellock, still little studied in depth, especially in Italy where many still believe that Leonardo da Vinci was the inventor of this fundamental firing system. This belief, however, survives sporadically also in other nations, at least among the less conscientious or less prepared aficionados. In this regard we just recall how perhaps the first author to study the two known drawings by Leonardo was Theodor Beck[4] who merely assumed that they dated back to before 1515; the topic was then taken up by Feldhaus[5] and he too, with commendable caution, wrote that the pages of the Codex Atlanticus dated back to a period between 1482 and 1515 and therefore the mechanism could not have been drawn after that date.

Later on, the eminent vinciano scholar Carlo Pedretti[6] has dated the "sheet" 158r (formerly 56vb) 1508, i.e. at a later period to that of several documents proving the existence, in Germany, of wheellock firearms[7].

Indeed a wheellock normally would not have the need for a safety because the cock was usually kept rotated forward: it was taken down backward only in case of need, thus bringing the pyrite in contact with the pan cover. To do this it was necessary to use both hands, a cumbersome feat for those who were on horseback or for those who had the sudden need to fire the weapon. Thus special mechanisms were devised, typically housed on the plate and capable to discontinue manually the mechanism connecting the trigger to the sear. No Italian weapons equipped with safety systems are known and this because the local production of wheellock was limited to the civilian market: for military use it was preferred to utilize the more economical and robust German products that were bought wholesale at the famous Bolzano trade fair.

The Turin gun is a typical pistol characterized by a grip that Brooker[8] defines "lemon butt" because of the big pommel whose shape is vaguely reminiscent of a peeled lemon.

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[4] Beck, T. Beiträgge der Geschichte des Maschinenbaues Berlin 1900.

[5] Feldhaus, F.M. Das Radschloß bei Leonardo da Vinci in *Zeitschrift für Historische Waffenkunde* IV 1906-1908.

[6] Pedretti, C. *«Eccetera: Perché la minestra si fredda»* Firenze 1975.

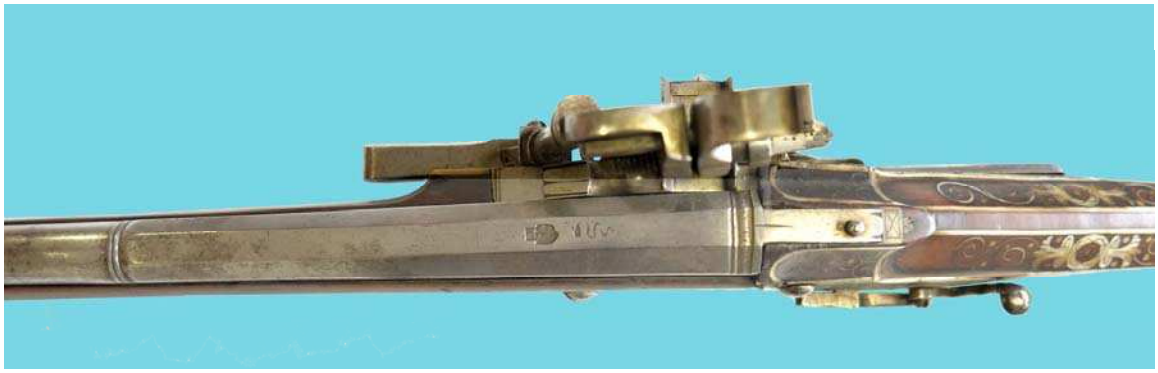
[7] Morin, M. The Origin of the Wheellock: a German Hypothesis in *Art, Arms and Armou*r Chiasso 1979.

[8] Brooker, R. *Landeszeughaus Graz, Austria* Hong Kong 2007.

This kind of pommel is also found in contemporary pieces produced in France[9], Spain[10] and, a surprising circumstance, in a pair of pistols with snaphaunce lock (CR 2800-2802) in the armoury of the Kremlin[11] and considered of English production.

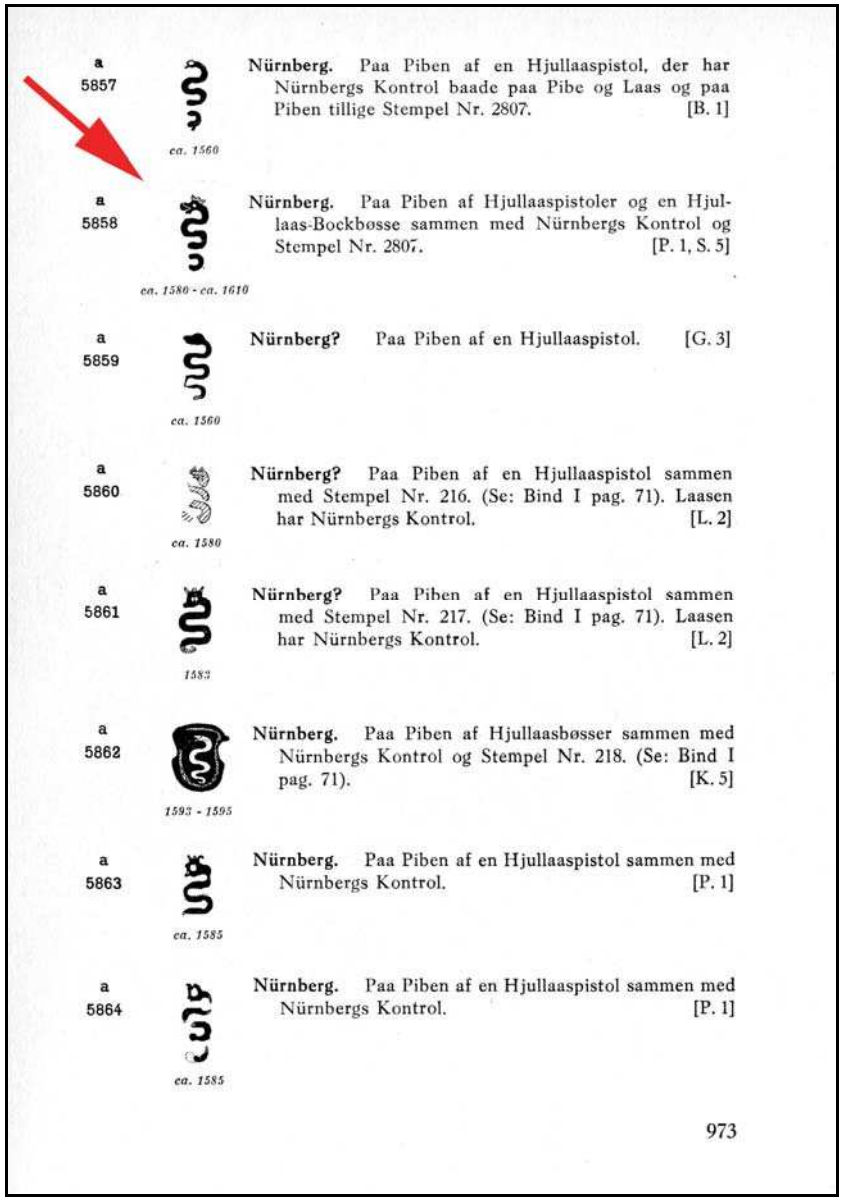
The barrel, 52 cm long and having a calibre of 15 mm, is square (octagonal) in the breech and then round, with muzzle ring and a double division ring between the two orders. On the upper face of the breech square part we find one of the marks of the Danner family (with no initials)

[9] Reverseau, J.P. *Armes et armures de la Couronne* Dijon 2004; Rimer, G. *Wheellock Firearms of the Royal Armouries* Leeds 2001.
[10] Blair, C. *Pistols of the World* London 1968.
[11] AA.VV. *Treasures of the Moscow Kremlin* Leeds 1998.



namely a crowned snake with the head turned to the left and, above, one of the Nuremberg control marks.

As far as the first is concerned it may be the Støkel[12] n. 5858



a 5857 — ca. 1560
Nürnberg. Paa Piben af en Hjullaaspistol, der har Nürnbergs Kontrol baade paa Pibe og Laas og paa Piben tillige Stempel Nr. 2807. [B. 1]

a 5858 — ca. 1580 - ca. 1610
Nürnberg. Paa Piben af Hjullaaspistoler og en Hjullaas-Bockbøsse sammen med Nürnbergs Kontrol og Stempel Nr. 2807. [P. 1, S. 5]

a 5859 — ca. 1560
Nürnberg? Paa Piben af en Hjullaaspistol. [G. 3]

a 5860 — ca. 1580
Nürnberg? Paa Piben af en Hjullaaspistol sammen med Stempel Nr. 216. (Se: Bind I pag. 71). Laasen har Nürnbergs Kontrol. [L. 2]

a 5861 — 1583
Nürnberg? Paa Piben af en Hjullaaspistol sammen med Stempel Nr. 217. (Se: Bind I pag. 71). Laasen har Nürnbergs Kontrol. [L. 2]

a 5862 — 1593 - 1595
Nürnberg. Paa Piben af Hjullaasbøsser sammen med Nürnbergs Kontrol og Stempel Nr. 218. (Se: Bind I pag. 71). [K. 5]

a 5863 — ca. 1585
Nürnberg. Paa Piben af en Hjullaaspistol sammen med Nürnbergs Kontrol. [P. 1]

a 5864 — ca. 1585
Nürnberg. Paa Piben af en Hjullaaspistol sammen med Nürnbergs Kontrol. [P. 1]

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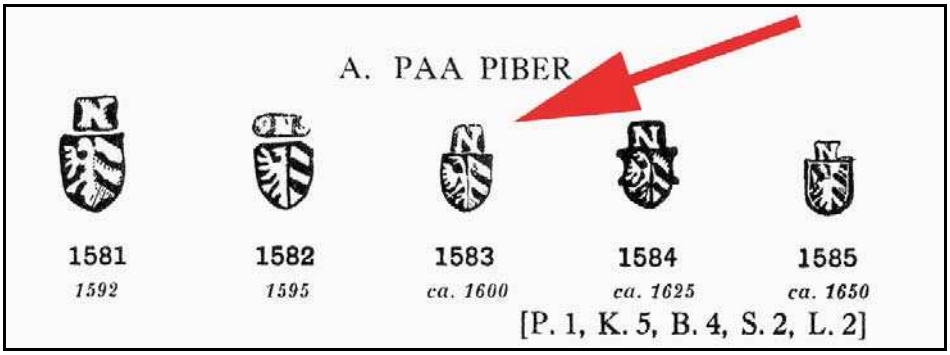
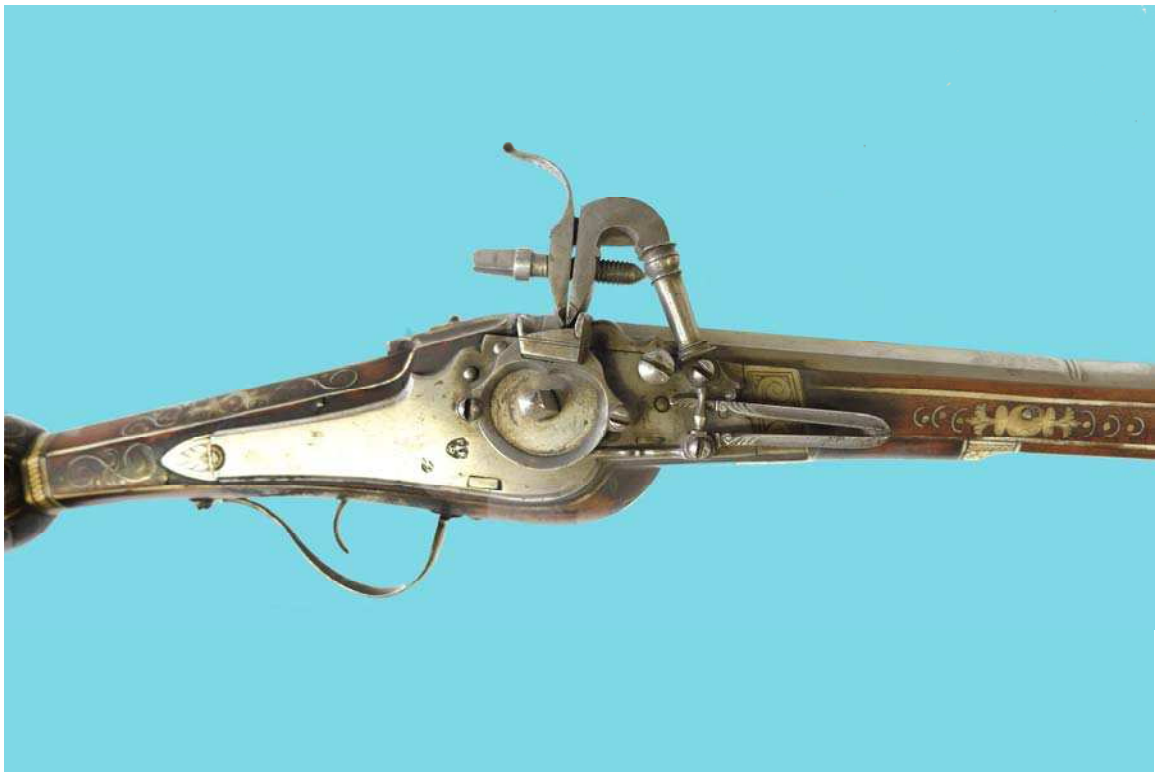
while the second is almost certainly the Støkel n. 1583

[12] Støkel, J.F. *Handskydevaabens Bedømmelse II* København 1943.



A similar mark, slightly more well-defined it is found on the barrel of the RP 717 pistol in the Graz Landeszeughaus[13], weapon the Dittrich dates back roughly to 1615.

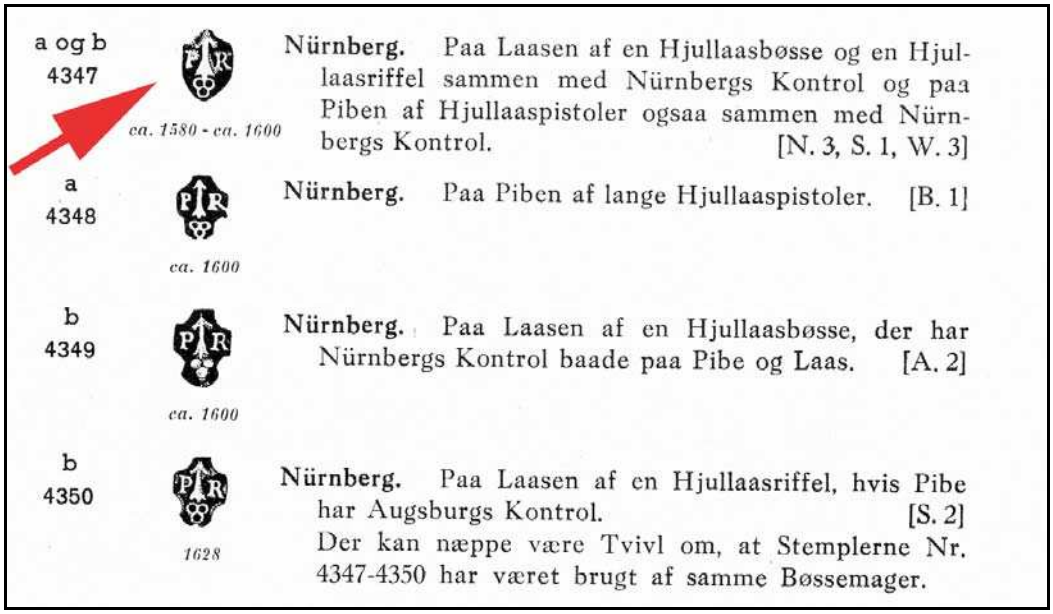


[13] Dittrich, R. Die Handfeuerwaffen des Landeszeughauses in Graz, Teil 4 in *Waffen- und Kostümkunde* 2003 II.

The lock plate is typical for its period (± 1600) with the stem of the dog, baluster shaped, loaded by an equal arms V spring and with a pronounced "curl" grip as an appendix of the upper movable claw.

The wheel, superiorly sheltered by a sliding pan cover with automatic opening (but which can also be actuated by an external button visible between the cock and the pan), is protected by a bridle secured to the by two screws. On the central part of the lock plate two marks are visible, a small Nuremberg control and one made up by a shield with an arrow pointing upwards placed between the letters P and R and overlying three contiguous rings.

This mark is the Støkel n. 4347 dated between 1580 and 1600, probably utilized by the same master who also used 4348, 4349 and 4350.



a og b
4347
ca. 1580 - ca. 1600

Nürnberg. Paa Laasen af en Hjullaasbøsse og en Hjullaasriffel sammen med Nürnbergs Kontrol og paa Piben af Hjullaaspistoler ogsaa sammen med Nürnbergs Kontrol. [N. 3, S. 1, W. 3]

a
4348
ca. 1600

Nürnberg. Paa Piben af lange Hjullaaspistoler. [B. 1]

b
4349
ca. 1600

Nürnberg. Paa Laasen af en Hjullaasbøsse, der har Nürnbergs Kontrol baade paa Pibe og Laas. [A. 2]

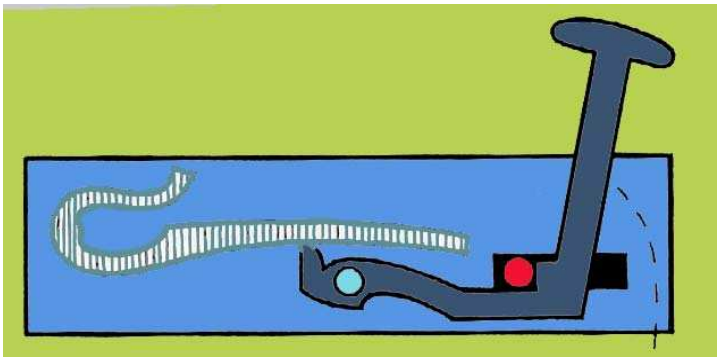
b
4350
1628

Nürnberg. Paa Laasen af en Hjullaasriffel, hvis Pibe har Augsburgs Kontrol. [S. 2]
Der kan næppe være Tvivl om, at Stemplerne Nr. 4347-4350 har været brugt af samme Bøssemager.

The walnut stock presents numerous curled decorations inlaid in mother of pearl and bone plaques engraved with various figures.

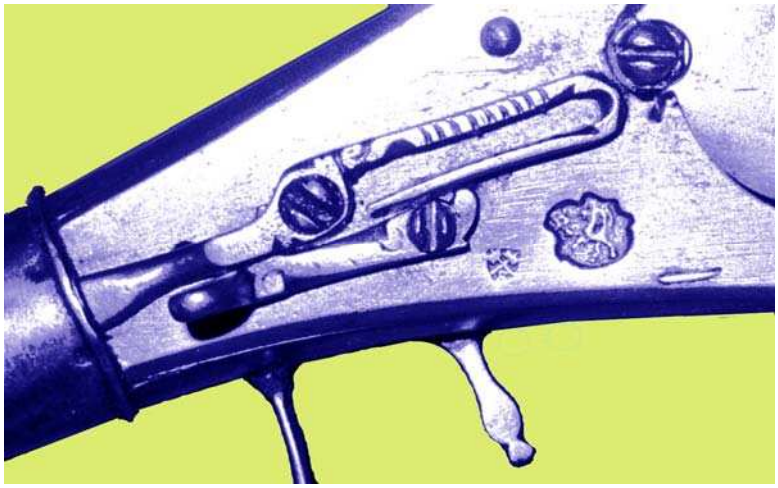
As mentioned above the most interesting feature of this gun is the presence, on the right side of the stock at the level of the trigger guard, of a conspicuous external safety operable with the thumb while handling the weapon. On a small rectangular plate, equipped with a slot from which projects a lateral appendix of the trigger, it is set on a pivot an L-shaped lever loaded by a V spring with unequal arms. By pushing down the lever the projecting appendix is released and then there is the possibility to pull the trigger.

The diagram below, derived from the work of Arne Hoff, clearly explains the device and how it operates.



This kind of safety, as far as we know exclusively utilised on German handguns, is only present on few cavalry pistols and this because its presence prevents the application of the well-sized belt hook present on the largest part of wheellock guns intended for "police" and the infantry use.

We reproduce below a detail of the safety system present on a German pistol of the second half of the sixteenth century, similar however to those commonly used even in the next century



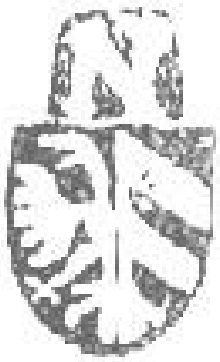
A rotating hook, loaded by a spring placed at the top, in the position in which it is depicted blocks an element of shooting driveline: simply rotate the hook 180 degrees anti-clockwise to unlock the system and shoot.

Pistols similar to that briefly described are not very common, at least in public collections. In Italy it is known a couple of Odescalchi (359-360) collection, well described by Nolfo of Carpegna in both the two editions of his book[14] on firearms and in the general catalogue[15]. One of these two guns was reproduced from Hayward in his seminal text[16], this being the indication of the 'archetype' rarity. Abroad, I had the

[14] di Carpegna, N., *Armi da fuoco della Collezione Odescalchi*, Roma, 1968.
[15] di Carpegna, N., *Le armi Odescalchi*, Museo di Palazzo Venezia, Roma, 1976.
[16] Hayward, J.F. *The Art of the Gunmaker I* London 1962.

opportunity to see just the pair No. 219 (1-2) of Landeszeughouse of Graz[17] and, if my memory does not betrays me due to the very long time elapsed, another pair then (1993) in the Metropolitan Museum deposits. The safety system is, however, also present on some guns even more ancient production: among these we remember the no. 51-126 of Munchen Bayerishen Nationalmuseum[18] in which, however, the L shaped control lever was (re) mounted upside down. Evidently no one has yet noticed this mistake as we find the same situation sixteen years later[19].

Finally, as soon as the National Museum of Artillery will find a new worthy venue, we are sure this pistol deserves to be exposed with the necessary defence, that is in front of a mirror which can make visible the left side of it and, in particular, the safety system.



The author wishes to thank, for the kind hospitality received, the Director of the National Museum of Artillery Colonel Ernesto Gaschino and Consignee Lieutenant Enrico Galletti.

[17] Krenn, P. e W.G. Karcheski *Imperial Austria* Graz 1992.
[18] Schalkhausser, E. Die Handfeuerwaffen des Bayerishen Nationalmuseums in *Waffen- und Kostümkunde* 31 1972.
[19] Schalkhausser, E. *Die Handfeuerwaffen* Munschen 1988.