

MEMORANDUM D5: "A Royal 'Haagseklok'" App. 3, Open-Research.
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D5 Timepiece-Alarm; cartouche signed '*Salomon Coster Haghe met privilege 1658*'. Special features: movement originally gilt; ratchet at the back of the movement; separate alarm train, with the bell on top of the case; dial plate turning on pins (private collection). Prof. Dr.Ir. Reinier Plomp, excerpt from 'Chronology' by given 'Dutch Pendulum Nr. D5'. (<http://www.kunstpedia.com/articles/46/3/The-earliest-DUTCH-and-FRENCH-pendulum-clocks-16571662/ Page3.html>), published 13th March 2008.



KP notes: Salomon Coster pendulum timepiece alarm, 'scribed "*met privilege 1658*". **COSTER 'D5'** was not inspected. I rely on Christie's published images, also LHJ Van Lieshout "*De Haagse klokken van Salomon Coster en Johannes Fromanteel*", (private circulation, March 7th, 2005), also Van Lieshout Archive, nr.988, (images and technical examinations carried out immediately after the clock's discovery; prior to its acquisition by P.C.Spaans; whose collection sold at Christie's Amsterdam on 19-12-2007, Coster '**D5**' being Lot.475 for €470,737- Gross).

D5 Wheel train and dimensions are posted on "*A Royal 'Haagseklok' by Severijn Oosterwijck*", *Appendix Three, "open-research"*, [Simple Matrix](#). Typical Coster numbers are shown in Green.

| Simple Table | Going Train | G1 | G2 | G3 | G4 | Beats per Minute |
|--------------------|-------------|----|------|------|------|------------------|
| COSTER | D5 | 72 | 8/65 | 5/64 | 5/27 | B 149.8 |
| ex-Spaans, Private | | | | | | L. 15.9 cm |

Nominal Pendulum

Dimensions of **D5** and peer clocks are given in extended user access matrices hosted by the **Horological Foundation**; [<openresearchS.xls>](#) also [<submitdataS.xls>](#) [S for spring clocks]

Notable features may have some bearing on this *movement's* proper chronology within Salomon Coster's surprisingly small surviving *oeuvre* of seven Hague clocks. At **Part I**, also **Appendix Three**, I discuss aspects of Coster **D5's** stop-work and case. Here I limit my observations only to what may be gleaned from Christie's images, supplemented by evidence of the construction and dimensions gleaned from Berry Van Lieshout's Archive, nr.988, adding my own insights.



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Among the seven known extant Salomon Coster signed clocks, this **D5** is the only example of ratchet-work being sited on the backplate; Coster timepieces, **D1-D4** all have their ratchets set on the front-plate: whereas the Coster hour-striking clocks **D8** and **D10** have ratchets set upon the front barrel cap - like to Severijn Oosterwijck's **RH**.

Notable, too, the ratchet-work set on the back-plate is common to Oosterwijck's [Lieberge](#) timepiece-alarum; and also the *5-wheel train* timepieces of Ahasuerus Fromanteel's (dated 1658), and Bernard Van Stryp; also in some of Pascal's early clocks too. [Later, Visbagh, Tegelbergh, and Van Ceulen's backplates all made a feature of ornate pierced ratchets with elaborate click-springs. Later still, probably for aesthetic or cost reasons, ratchets moved back to the front plates]. The untypical 'double-footed' Anglo-French back-cock may be a *replacement*, like the French *reconstruction* in one of Van Ceulen's clocks, ([Ceulen3](#)).

The fugitive *line* around the back-plate is also untypical of Coster, but resembles Oosterwijck's trademark *outline* feature, (see [Lieberge](#) timepiece above, also Huygens' Legacy, Op.Cit, p.34).

The dialplate swivels on pins, set into two subsidiary brass plates at upper and lower dialplate, which pivot in the front edges of the box case; like Oosterwijck **RH**. The dial latch is untypical, the latch-spring has a broad but thin leaf-shape foot, and is screwed to the dial - not rivetted.



The box carcass frames the backboard like all other Costers - excepting D4 ([MemoCosterD4](#)). Whereas, an **Oak** carcass is untypical. Deal is the usual wood. Might this oak backboard be the original?



The pendulum rod is suspended by a hook, not Huygens' [pulley-spreader](#). It has, instead, typical 'anti-banking -plate' set through the crutch-loop.

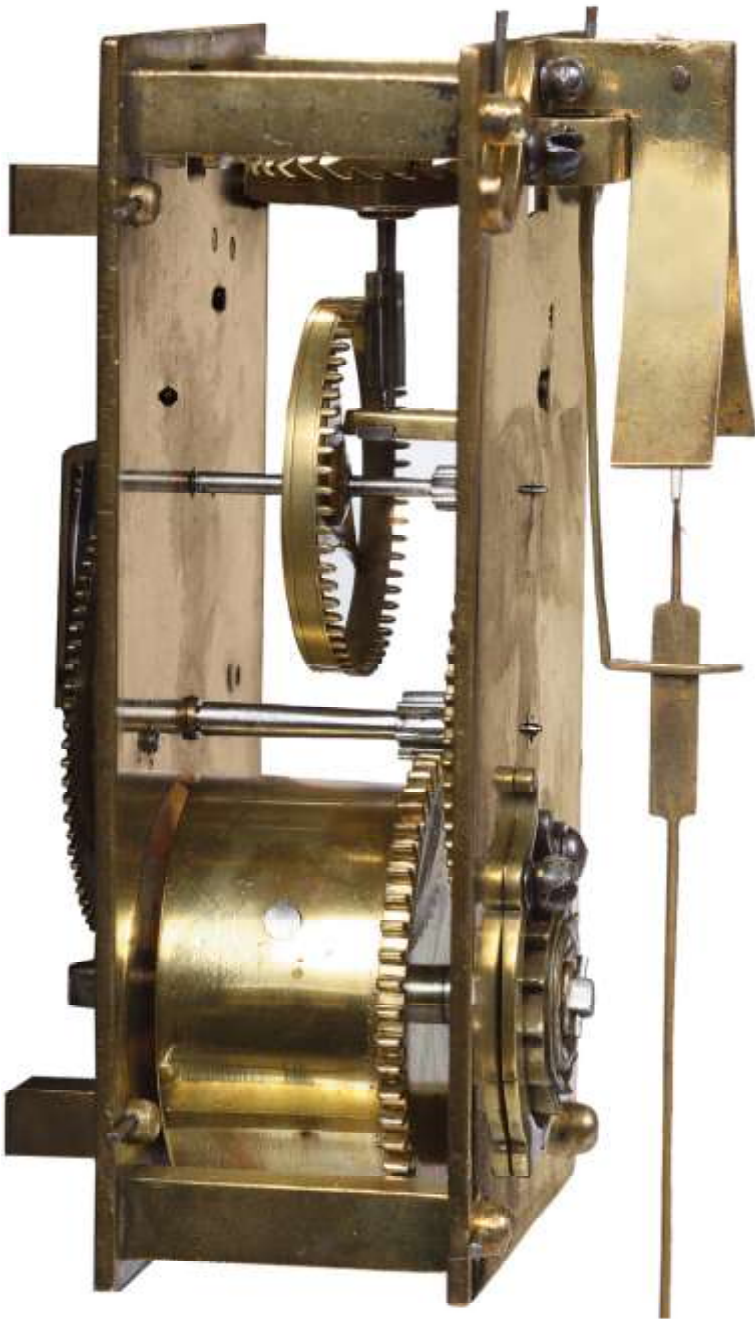
Early Hague clock suspension hoops (eyes) have no standard size, shape, even metal. These are made of iron, unusually elongated, with thick short stumps having hand-cut wood screws.

D5's superior bell on a box case is a departure from the internal bells of Oosterwijck **RH**, Coster **D8**, and **D10**. This quickly became the standard position for bells, although soon shielded from view by pediments of classical form set on the door, (or on the box in some French derivatives).

Circa 1660, several contemporary French pendulums ('*Pendules Religieuses*'), share this proud superior bell with D5. They, and Coster **D8**, share its moulded door frame and red-underpainted tortoiseshell veneers. Compare **Nicolas Hanet - Paris**, (Exhibit.16, "*Huygens Legacy*", Op.Cit); **Jean Hubert - Rouen**, (Reinier Plomp, "*Early French Pendulum Clocks, 1658-1700, known as Pendules Religieuses*", p.38, nr.42, Colophon, 2010). For all those reasons, I have suggested that a French hand - Pascal or Hanet - might also have been involved in making Coster **D5**.

I have also formed a considered view that the fugitive outline to the plates, and the movement's general similarity to Severijn Oosterwijck's "Lieberge" timepiece alarum movement, might also suggest his guiding hand -- both as to the unusual layout of 'Coster' **D5** and in its making.

NB. Unusual repeated SQUARE sections; Dial-Feet, Movement Pillars, Alarum Pillars.



Note. Centre-wheel and pinion are joined at the back-plate, like all Coster clocks. Unusually, the centre-arbor has a reverse taper (like **D4**), but no steel collet abutting onto the front-plate; ie. unlike obverse tapers to Coster-striker also having steel collets at front-plates.



Note. The remote *Alarum* is built in a like manner as the movement, it too has square pillars, external ratchet-work, set on its back-plate; both having turned ratchets and brass springs to the steel clicks, held with screws. The alarum is wound at the right face of the box, with the winding key. Compare this with the attached [Alarum](#) affixed to Coster **D8**, when discovered, which probably was a contemporary alarum.

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STOP-WORK: (see "*A Royal Haagseklok*", **Part I**, page.18).

1. Evidence on forward barrel cap shows site of a fixing screw for *former stop-wheel*.
2. No evidence on barrel arbor of a pinion *leaf or hole* for pin, to stop-wheel, ([cf.RH](#)).
3. Unusual pyramidal taper to arbor winding square is untypical of first Hague clocks.
4. This evidence (1-3) suggests that this present barrel arbor is a replacement.
5. Originally **D5** probably left Coster's workshop with [Reijnaert](#) † type stop-work (so named because several of his survive). The barrel arbor is drilled through, to form the pinion of report for the enlarged barrel stop --more turns and extra power-- that constantly must withstand internal spring forces -- especially attempts to overwind!
6. Occasionally these pinion pierced arbors did fail, (the wonder is that more did not).
7. The fact that original stopwork was not replaced, simply by adding a pin or a pinion leaf to the replacement arbor, suggests this was done in France - where the stop is invariably ignored; being derived from Coster's **D3-D4** types, ([MemoCosterD4](#)).

† Coster's last apprentice, taken on before John Fromanteel arrived in the Hague. Visbagh took him over in 1660, with the workshop. It would be instructive to find a "Coster" with intact *Reijnaert stopwork*, but that is not to say he made any. I suggest a more probable chronology

is this developed form of stop only appeared later, even after Coster died in December 1659.

CHAPTER-RING: (see "*A Royal Haagseklok*", **Part I**, page.4). Using Dr Plomp's chronology, the chapter ring of Coster D1 at Boerhaave Museum is taken to be the "*First State*"; ie. having no inner line, no quarter divisions, arrow half-hour marks, with each minute 1-60 is numbered in outer band, and every minute, including 1-9, scored through. Among seven extant Costers, only **D5** shares **D1** chapter ring, ([PCR_State1.jpg](#)); but that seems at odds with **D5** features having a later chronology. Whereas, the Science Museum's Coster **D4** has a '*Second State*' chapter ring with inner line but no quarter divisions and single minutes 1-9 not scored through. ([PCR_State2.jpg](#)). Coster **D8** has '*Third State*', no inner line, the half-hours of 'spring-flowers'. Coster **D10** has '*Fifth State*', with quarters and with new half hour marks, ([PCR_State5.jpg](#)).

HANDS: (see "*A Royal Haagseklok*" p.5, and Oosterwijck RH pattern, [PH4i Lobed RH.jpg](#)). Coster hands are distinctive, but actually all different, the striking clock hands very different. **D5's** original minute hand is typical Coster pattern, its alarum setting tail is convincing. The original Hour hand has untypical reversed lobes, with a novel *christmas-tree* pointer; a collet is present (not usual in timepieces). Alarum disc's decorative arrows match the chapter ring.

SQUARE PILLARS: (see "*A Royal Haagseklok*", pages 8 and 24). Dr Reinier Plomp also Berry van Lishout consider this single feature of 'square pillars' as denoting the contracted productions of John Fromanteel between 3rd September 1657 and Mayday 1658. Yet other square pillar clocks made outside that period, are known, also being made in Germany and England. In my opinion, there is doubt about any '*single feature*' dating, especially of **D5**, for reasons I have given at **Part II**, (p.24,§ 2. "*Coster's Clockmakers?*"). My concern at single-feature dating is expressed in my perspectives, to justify *open-research* and establish more complete data for the study of evolutions and chronologies. Furthermore, John Fromanteel certainly had no hand in the much later '*Oosterwijck Regulator*', ([R_Regulator.jpg](#))

ASSESSMENT: Coster's sole *timepiece-alarum* clock belongs to the period and workshop. Evidence of removed stop-work, actually confirms **D5's** true Coster credentials; but *Reijnaert stopwork* suggests the chronology of **D5** is too early. In my view, there is evidence to justify re-consideration of this clock's chronology, which Dr.Plomp infers is **D5**; namely, a late *Case* style; late *Barrel Stop-work* construction, formerly having pierced-arbor; also having *Ratchet-work* outside the back plates; also having integral *Alarum*. **D5's** Hands, are not '*looped*' like **D8**, **D10**, so probably do fall within Dr.Plomp's given Coster chronology. However the *outlined* back-plate is generally regarded as being an Oosterwijck *signature feature*, probably adopted no earlier than 1660, (cf. **D9**, *Huygens Legacy* nr.11, also his exquisite [Lieberge](#) timepiece).

Coster D3-D4 never were fitted with stop-work, so the whole Coster chronology become less certain. On balance, Coster **D5's** former stop-work cannot antedate Oosterwijck's hidden stop, so whether it remains a Coster, or a '*Fromanteel-Oosterwijck-Pascal*' Coster, it cannot remain as '**D5**'. Despite the shield's scratched date, '1658', it could in fact be a *posthumous* Coster. His name then, as now, carried a premium that the workshop may have colluded to fill as it wound-down at Coster's death then acquired, with apprentice Reijnaert, by **Pieter Visbagh**.

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