

The Haas-Galinha printing press

O prelo Haas-Galinha

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RESUMO

Este artigo revê a história de um prelo manual em ferro forjado conservado na Biblioteca Geral da Universidade de Coimbra. Reavaliando a sua possível origem, põe-se a hipótese de ter sido originalmente fabricado entre 1784 e 1794 por Wilhelm Haas, em Basileia (Suíça), e recuperado por Manuel Bernardes Galinha, em Coimbra (Portugal), em 1845. Seria, nesse caso, o mais antigo prelo de corpo metálico conservado no mundo.

PALAVRAS-CHAVE

Basto, Augusto Valério Ferreira Pinto, 1807-ca.1902; Galinha, Manuel Bernardes, 1810-1864; Haas-Decker, Wilhelm, 1766-1838; Prelo Haas-Galinha; Prelo metálico, 1784; Prelo metálico, 1845; Tipografia, história.

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ABSTRACT

This article revisits the history of a wrought iron hand press kept at the General Library of the University of Coimbra. It reassesses its possible origin, and raises the hypothesis that it was originally made by Wilhelm Haas in Basel (Switzerland) between 1784 and 1794, and repaired by Manuel Bernardes Galinha, in Coimbra (Portugal), in 1845. If true, this would make it the oldest iron printing press in the world.

KEYWORDS

Basto, Augusto Valério Ferreira Pinto, 1807-ca.1902; Galinha, Manuel Bernardes, 1810-1864; Haas-Decker, Wilhelm, 1766-1838; Haas-Galinha printing press; Printing press, 1784; Printing press, 1845; Typography, history.

In 2009, one of the authors of the present paper wrote a *notula* on what was then commonly called the “Galinha press”, and which ended like this:

“... it is on display at the entrance to the Academic Prison, on the first floor of the Joanina Library, in poor condition, incomplete and in need of restoration.”³ (Amaral, 2009)

The whole purpose of that short note was to converge on this conclusion, since our objective was to draw attention to the object and the need to restore it.

3 In the original: “... encontra-se em exposição na entrada do Cárcere Académico, nos fundos da Biblioteca Joanina, em mau estado de conservação, incompleto e a necessitar de restauro.”



The press, before restoration. Photo by Luís Garção Nunes, 2007

At that time, no research had been done on the press. Every piece of information on hand was owed to Joaquim Martins de Carvalho (1822-1898), in a brief note written for *"O Conimbricense"* (Carvalho, 1888), a newspaper of which he was editor and main writer. This note, a relevant source on the history of this press, is transcribed in the **Appendix**.

Based solely on the information provided by J. Martins de Carvalho, the General Library's printing press kept in the Joanina Library already seemed to us worthy of greater scholarly appreciation. As we expressed at the time, it *"is present across more than a century of cultural work of the best generation in the town and its University"*⁴: it

4 In the original: "atravessa mais de um século de labor cultural do melhor escol da Cidade e da sua Universidade" (Amaral, 2009).

served, in succession, the most prestigious local press of civic intervention (the *Observador* newspaper), maybe the activity of the *Sociedade de Instrução dos Operarios* (Workers' Education Society), then the University Library, and finally the Botanical Gardens.

This is a well-known and oft-told story, which is no small feat, considering it is not very often that the story of a machine can be told with literary and written sources. Even today, at a time when industrial archeology is a consecrated discipline, few take the time to write about such "junk". Therefore, the fact that there are written sources on a modest press from Coimbra is extraordinary in and of itself.

The well-known history: 1845-1852

In the article we have been referring to, J. Martins de Carvalho makes several statements that we shall now examine in more detail.



The press' plaque by Manuel Galinha. Photo by João Armando Ribeiro, 2008

On the origins of the printing press he declares:

*"... it was made in 1845 in the locksmith's workshop of the skillful Manoel [sic] Bernardes Gallinha, established in Sophia St., with the aim of printing an opposition periodical, which should have the name of Conimbricense, but which never came to light..."*⁵
(Carvalho, 1888)

Joaquim Martins de Carvalho was the first to carry out research on Coimbra printers and their workshops. We owe him an extraordinary survey of elements, collected locally for years in all available locations. Though he lacked access to the big libraries in Lisbon and abroad, something which he himself regrets⁶, the amount of information he recorded is nonetheless tremendous.

In his major work on the subject of printing, modestly called *Apointamentos* (1868), Carvalho reviewed the history of all the printing presses in Coimbra.

About the "Press of the *Observador*", promoted in 1847 by elements of the Progressive Party, he wrote:

"The type was sent from Lisbon. As for the press, one was purchased which had been made in 1845 in this city at the locksmith's workshop of Mr. Manuel Bernardes Gallinha, by order of Mr. Augusto Ferreira Pinto Basto, with the intention of printing a newspaper, which he planned to publish under the name of Conimbricense, and of which Mr. Dr. António Luiz de Sousa Henriques Secco was to be the director. This newspaper

5 In the original: "... foi feito em 1845 na oficina do hábil serralheiro, Manoel [sic] Bernardes Gallinha, estabelecido na rua da Sophia, com o fim de nelle se imprimir um periódico da opposição, que devia ter o nome de *Conimbricense*, mas que não se chegou a publicar..."

6 He says in 1891 that he "never even entered the Portuguese National Library" (Carvalho, 1891) (in the original: "... e nós nunca entrámos na Biblioteca Nacional").

had not been able to come to light as a result of the obstacles raised by the authorities of the time, and so the press was left unused.”⁷ (Carvalho, 1868, p. 391)

It is essentially the same information, a little expanded upon, but adding the name of locksmith Manuel B. Galinha’s alleged commissioner of the press: Augusto Valério Ferreira Pinto Basto (1807-*ca.*1902) the “main influencer”⁸ behind the newspaper project, in 1845, who seems to be a key-figure in this whole affair. He was the son of the founder of the Vista Alegre porcelain (and glass) factories; as a young man, and a “liberal”, he had to exile himself in England and later in France (Sèvres), where he studied the ceramic industry⁹. Once back in Portugal, he was the company’s first administrator (1824-1838), tasked with going abroad, either to research the compositions of ceramic pastes or to hire great master ceramists who determined the success of the company.

7 In the original: “Mandou-se vir o typo de Lisboa. E quanto ao prelo, foi comprado um, que tinha sido feito em 1845 nesta cidade na serralharia do sr. Manuel Bernardes Gallinha, por encomenda do sr. Augusto Ferreira Pinto Basto, a fim de nelle se imprimir um jornal, que se projectou publicar com o nome de Conimbricense, e do qual seria redactor o sr. Dr. António Luiz de Sousa Henriques Secco. Esse jornal não tinha podido sahir á luz em consequencia dos facciosos obstáculos postos pelas auctoridades d’essa epocha, e ficara por isso o prelo sem servir.”

8 “...o principal influente para a fundação d’este jornal...” (Secco, 1889, p. 284, note a), as the appointed director of the paper recalled in his *Memories*.

9 Bobone, 1997, vol. 1, p. 249. He likely visited Meissen as well, the first porcelain factory in Germany, not far from Grimma where Göschen had moved his print shop to in 1797.



Augusto Valério Ferreira Pinto Basto. Photo kindly authorized by Museu da Vista Alegre, Ílhavo, Portugal

His entire family was involved in politics, and, because he owned houses in Coimbra¹⁰, Augusto V. F. Pinto Basto became a member of the “*Junta Governativa*” (Governing Board) of Coimbra formed against the government of Costa Cabral¹¹. His brothers were active in a much similar way in Aveiro and Porto. In his biography, there are no other connections with printing or with the periodical press¹² worthy of

10 “Proprietário”, says Secco, 1889, p. 468, note a. The family company “Viúva Ferreira Pinto Basto & Filhos” owned the former monastery of St. Thomas in Coimbra and a number of houses in the town.

11 In Coimbra, as in other Portuguese districts, a *Junta* was created and a battalion of academic volunteers organized. This uprising resulted in the resignation of Costa Cabral and the appointment of the moderate Duque de Palmela to replace him. The Academic Battalion was promptly demobilized afterwards.

12 The Pinto Basto family had long relied on newspapers to support their many commercial and political fights (Bobone, 1997, vol. 1, p. 23). According to Professor J. Amado Mendes, considerable research on him and other entrepreneurs is still

note. We have no evidence of his involvement in the *Observador*¹³ either. Establishing a printing press may have been a momentary need within the political events around the Minho Revolution or “Maria da Fonte” (1846) he was so deeply involved in. And he could certainly afford it.

Without denying that the press could have been functional since 1845, what is certain is that Augusto Pinto Basto was unable to assemble a printing office with it, since all publications of the *Junta Governativa* of the year 1846 ended up being printed at the Coimbra University Press. And, one can easily imagine, once the excitement of political involvement had faded, the need to found a newspaper slowly vanished in the midst of Augusto Ferreira Pinto Basto’s life project. In 1845 he was the owner of the Quinta do Silveiro, in Oiã (Oliveira do Bairro, Aveiro), and already father to one daughter and four sons, so “he retired to a long and peaceful old age, living in his estate in Oiã until he was almost a hundred years old”¹⁴.

Apart from Seco’s confirmation of Pinto Basto’s major role in the envisioned publication, the journalist Martins de Carvalho is the only source, in his 1869 and 1888 texts, that refers to the commission made to Manuel B. Galinha and the subsequent acquisition of that press by the *Observador* newspaper (1847). An analysis of the newspaper itself reveals that its printing area is 29,5x19 cm (34x24 cm paper size, 48x34 cm for double sheets), which seems compatible with the dimensions of the press¹⁵, though we would

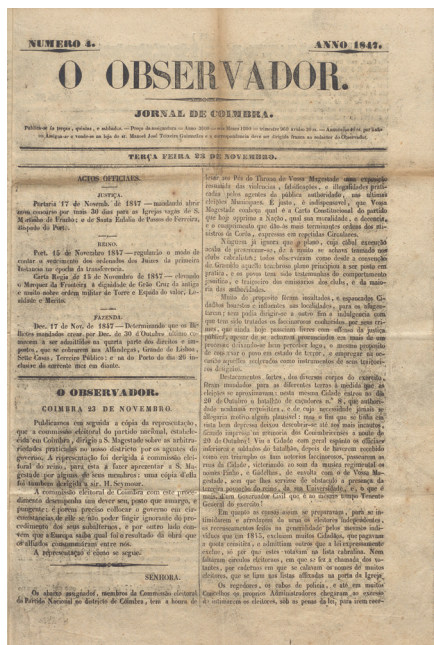
still needed: “... também neste domínio há muito que pesquisar, não só em relação a alguns elementos da respectiva elite já conhecidos — como sucede, sob certas perspectivas, com os Pinto Basto, da Vista Alegre —, como quanto a outros de que pouco ou nada se sabe.” (Mendes, 1992, p. 362).

13 However, A. L. S. Henriques Secco remained involved in the new project.

14 In the original: “... remeteu-se a uma longa e pacata velhice, vivendo na sua quinta em Oiã, até ser quase centenário” (Bobone, 1997, vol. 1, p. 57).

15 The page size of books printed probably on the improved Haas press (Haas, 1790), is 21x27 cm. The largest sheet the replacement tympan on the restored press can accommodate is 46x57 cm, for a maximum page size of 28.5x46cm.

very much like to have another confirmation in order to accept this information without any doubts¹⁶.



The *Observador* newspaper, nr. 1, November 16th, 1847. Photo BGUC

We think Martins de Carvalho should be well informed on the “*Observador*’s Printing Press”, considering he was personally involved in the creation process of *O Conimbricense*, which succeeded it¹⁷. His personal participation in the events is disclosed at the end of the chapter about the *Observador*’s Printing Press, in *Apontamentos*:

“At that time [1855] we founded a new press to print the newspaper, which since January 24, 1854 had changed its name to Conimbricense.

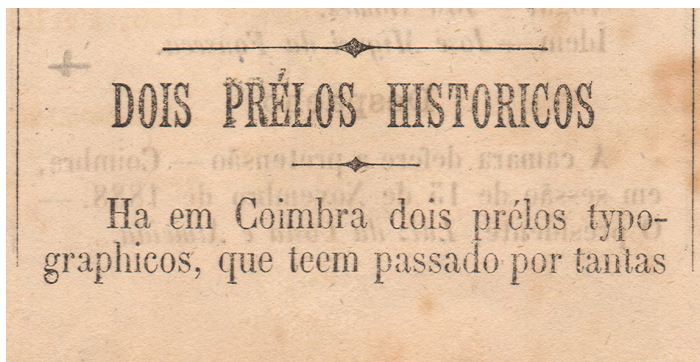
16 Bobone, 1997, vol. 1, pp. 56, 59 refers to “Arquivo da Casa Pinto Basto” (archive of the Pinto Basto Estate), which we could not locate; additionally, we were told the papers of the Pinto Basto family were recently dispersed.

17 Joaquim Martins de Carvalho, “administrator” of the *Observador*, became “editor” of *O Conimbricense*, as Henriques Secco assures us (Secco, 1889, p. 284).

We'll talk about that press in a next chapter."¹⁸ (Carvalho, 1869, p. 400. Emphasis added)

The two facts, that 1) he was the “administrator” or even the “owner” of the *Observador* in its final days¹⁹, and 2) that he was involved in the creation of a new printing office also called “*Conimbricense*” (1855) credits him with certain knowledge of the periodical’s “old” typographic establishment — even if little used, since the newspaper was regularly printed at the print shop of Elvira Trovão (1852).

His personal involvement, and his permanent interest in everything related to the history of the press in Coimbra, seem to us a sufficient guarantee of his being well informed about the presses, type and all the hardware available in the former *Observador Printing Office*.



The beginning of the article by J. Martins de Carvalho. See Appendix

Different owners: 1852-1866

In the text *Dois prelos históricos* (Two historical presses) that we have been following closely, it is clearly stated that the press once used for printing the *Observador* was unused after 1852:

18 In the original: “Nessa epocha [1855] **fundámos** uma nova imprensa para imprimir o jornal, que já desde 24 de janeiro de 1854 tinha mudado o nome para *Conimbricense*. D’essa imprensa falaremos no seu logar próprio.” (Our highlights).

19 According to Loureiro, 1953, p. VII.

*"On 31 December, 1850, the prelum was again moved to Trindade College, on the same street, where it stayed until 24 January, 1852, when the Observador began to be printed in the press of Elvira Trovão, at Sargento-Mór St."*²⁰ (Carvalho, 1888)

What happened to the press afterwards? Carvalho continues with the object's history by saying that:

*"[In] the great room of Trindade College (...) **our Masonic Lodge** - Patria e Caridade - was founded later in October of the year 1852..."*²¹ (Carvalho, 1888. Emphasis added)

Confessing himself to be a member of the *Pátria e Caridade* Masonic Lodge, Martins de Carvalho would also be in good position to certify that the press remained in Trindade College and was not used in the new *Coimbricense* printing office of 1855. He says nothing about it being used in the activities of the *Lodge*, but it is very reasonable to assume that it was.

After a period of little or no use, the press was acquired by another printer:

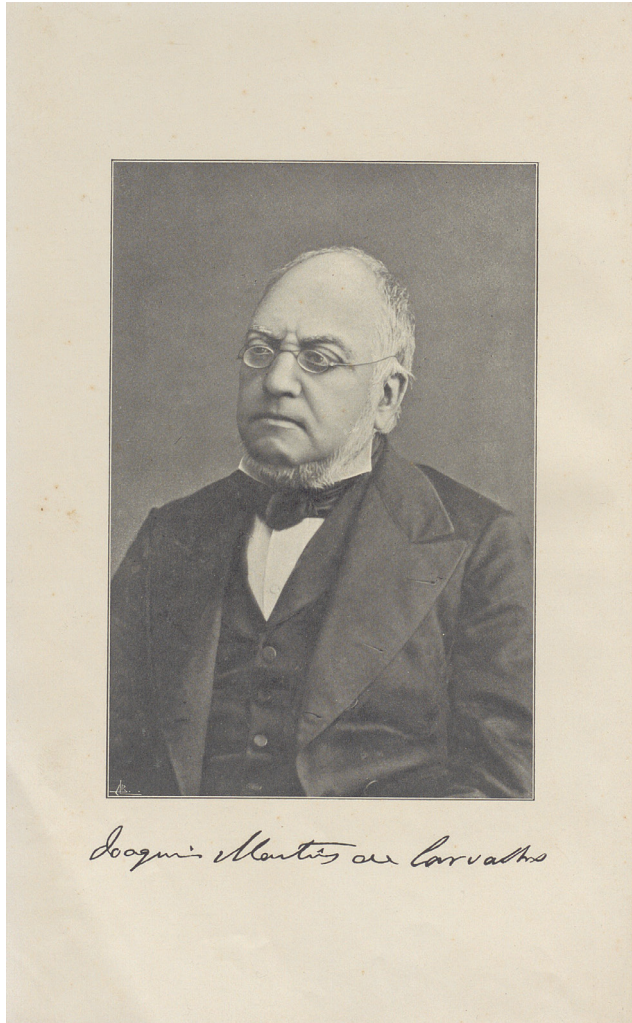
*"The aforementioned press of the Observador was bought in 1866 by the printer, now dead [he writes in 1888], Francisco dos Santos e Silva, who established with it a printing shop at Covas St., today renamed Borges Carneiro St., from where it passed to Fangas St., today known as Fernandes Thomaz St."*²² (Carvalho, 1888)

20 In the original: "No dia 31 de Dezembro de 1850 foi ainda mudado o prélo para o collegio da Trindade, na mesma rua, onde esteve até 24 de janeiro de 1852, em que o Observador passou a ser impresso na imprensa de Elvira Trovão, na rua de Sargento-Mór".

21 In the original: "[Na] grande sala do collegio da Trindade (...) existiu posteriormente **a nossa loja** maçónica – Patria e Caridade – fundada em outubro do referido anno de 1852..." (Our highlights).

22 In the original: "O mencionado prélo do Observador foi em 1866 comprado pelo impressor, já fallecido [em 1888], Francisco dos Santos e Silva, que com elle esta-

The Francisco dos Santos e Silva's Printing Press is briefly addressed by Carvalho in his *Apontamentos* (Carvalho, 1868, pp. 414-415), where he confirms that Galinha's press was kept there. Among other publications, the literary and bimonthly newspaper "Povo" (1 Jul.-31 Oct. 1866) was printed with it.



The journalist Joaquim Martins de Carvalho. In Loureiro, 1953

beleceu uma imprensa na rua das Covas, hoje de Borges Carneiro, d'onde passou para a rua das Fangas, hoje de Fernandes Thomaz."

In the University Library: before 1874

We have been following the travels of the press, as told by a venerable journalist and scholar of the Coimbra's printing history²³. Unfortunately, he is the only witness to this story. But, as we have seen, he was in a position to know it from experience, and nothing is opposed to the account that he left us in the pages of *O Conimbricense*. Due to the position he held in the *O Observador-O Conimbricense* "axis", Martins de Carvalho couldn't but be informed about the history of the press, before and after him. He knew whom he had bought it from and could not ignore whom he had sold it to.

The news of its subsequent sale to the University Library²⁴ is confirmed by the account of Bernardo de Serpa Pimentel (Pimentel, 1874, p. 9), who served at the Library since 1841 and was its director in the very long period from 1849 to 1894. According to the University "Librarian" Serpa Pimentel, this acquisition was intended for printing the catalogues and to publicise new acquisitions.

This press's passage through the Botanical Gardens (to print labels for the plants) is still known to some living people, referred to in the bibliography, and was "confirmed" with the finding, during restoration works, of a sheet of the *Index Seminum* edited by the Botanical Institute in 1894 (inside a hole in the base of the press). The whole story thus seems to be perfectly validated, even if not with documentary evidence from the university archives.

23 Joaquim Martins de Carvalho was the first historian of the press in Coimbra, having written 115 articles on the subject in *O Conimbricense*, as well as entirely devoting the second part of his *Apontamentos* (1868) to it subject. The persistence of his interest on printing is attested by the large number of annotations, additions and corrections he made in his copy of the "*Apontamentos*" (today kept in the Reserved Books section of the BGUC), which M. Lopes de Almeida published in full (Carvalho, 1966).

24 Pimentel, 1874, p. 9.



A piece of paper found during the press restoration. Photo BGUC

One difficulty still is trying to understand how the press appears on loan in an exhibition on typography, in 1941, in Lisbon. The fact was recorded in the daily press²⁵, mentioned by Ramos Bandeira and illustrated with photos of Tomás de Aquino.

The exhibition was organized to commemorate the 300 years of the first Portuguese newspaper "*Gazeta*" (1641) in the headquarters of "*O Século*" daily paper. The organizer was the *National Union of Journalists*, and the museographer was Leitão de Barros, a well-known Portuguese film director and playwright, also a journalist himself. In the Union's *Bulletin*, a very detailed account of the festivities is given (Cunha, 1943-1945) and a pair of photos by Mr. Tomás de Aquino reproduced, but no details on the origin of the presses and other props used for the 3 life-size dioramas on display are provided. However, Ramos Bandeira states in 1947 that all 3 presses working at the exhi-

25 Exposição evocativa da Imprensa nos séculos XVII, XVIII e XIX. In *O Século* (year 61, nr. 21,443, 29 Nov. 1941) and *O Século* (year 61, nr. 21,447, 4 Dec. 1941). José Ramos Bandeira says all the 3 presses actually printed during the exhibition, having been repaired for that purpose. Cf. Bandeira, 1947, pp. 54-64.

bition came from Coimbra. Tomás de Aquino da Silva (1901-1966), the amateur photographer, was the President of the *Typographers Union* at the time of the event.

The information in Ramos Bandeira's account that the press was loaned to the exhibition by a certain Luís Mota-Pôrto (and not by the Library or the Botanical Institute) remains a mystery to us.



The press as displayed in Lisbon, in 1941. Photo by Tomás de Aquino da Silva, in Cunha, 1942-1945

When the history of an object is as long and complex as this one, some inconsistencies are par for the course: it has been said²⁶ that the press was the property of the Coimbra University Press, which is not true; or that this press traveled with the Army of Dom Miguel²⁷ during the Portuguese Civil War (1833-1834) — though that was the case with the University's wooden press, now on display in the Porto National Printing Museum.

²⁶ Vilaça, 2007, note 1, p. 88.

²⁷ Bandeira, 1947, p. 56.

Other difficulties

In this narrative, we believe that two issues remain unresolved:

1) would the skilled locksmith Manoel/Manuel Bernardes Galinha have been able to manufacture a machine as precise as an iron typographic press?

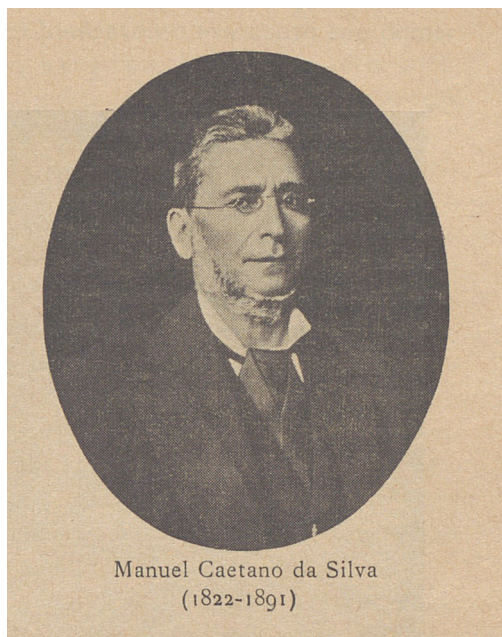
and

2) given the uniqueness of its design, where had the Master found a model for such an order?

The argument that the work was too specialised for his abilities seems to run up against the possibility of his having done a lithographic press two years earlier:

“Mr. Manuel Caetano da Silva ... took advantage of the occasion in 1843 when the locksmith of this city [Coimbra], Manuel Bernardes Gallinha, now dead, was in that town [Miranda do Corvo], and asked him to build a small lithograph press. Mr. Gallinha nodded at his request and built the press Mr. Manuel Caetano da Silva worked with, but with great difficulty, as he had no experience in printing.”²⁸ (Carvalho, 1868, p. 417)

28 In the original: “O sr. Manuel Caetano da Silva ... aproveitou em 1843 a ocasião em que estava naquella villa [Miranda do Corvo] o serralheiro d’esta cidade [Coimbra], hoje fallecido, o sr. Manuel Bernardes Gallinha, e pediu-lhe para lhe fazer um pequeno prelo lithographico. O sr. Gallinha annuiu ao seu pedido e fez o prelo, onde depois trabalhou o sr. Manuel Caetano da Silva, mas com grande difficuldade, pois não tinha nenhuma experiência de imprimir.”



The printer Manuel Caetano da Silva. Photo from Pimenta, 1955

We also owe this information to Joaquim Martins de Carvalho, who got it directly from the printer “...according to information given by Manuel Caetano da Silva himself”²⁹ (Pimenta, 1948, p. 146, note 3), as Belisário Pimenta asserts.

The memorialist Belisário Pimenta evoked this early lithographic venture of his maternal grandfather elsewhere:

“This Manuel Bernardes Galinha was known in the town [of Miranda do Corvo] because of the various repairs he had made to the bell tower’s clock. It was during one of those times, in 1843, that Manuel C. da Silva met him and commissioned the lithographic press”³⁰ (Pimenta, 1955, p. 11, note 1)

29 In the original: “...segundo informações dadas pelo próprio Manuel Caetano da Silva”.

30 In the original: “Este Manuel Bernardes Galinha era conhecido na vila [de Miranda do Corvo] por motivo dos vários concertos que fizera ao relógio da torre sineira. Foi, numa dessas vezes, em 1843 que Manuel C. da Silva o conheceu e encarregou do prelo litográfico”.

Belisário recalls that Manuel Caetano da Silva (1822-1891) began his printing experiences in Miranda do Corvo, on the outskirts of Coimbra in 1843, but finally came to the city in 1867. He was here the editor of "*O Auxiliar d'escriptorio : jornal d'annuncios e curiosidades util as repartições e empregados publicos...*" (1869-1882) and owner (and author) of the "*Almanach auxiliar de escriptorio*" (1873-1875?). His printing office in Coimbra was, accordingly, also named *Typografia Auxiliar d'Escriptorio* (at nr. 11 Praça Velha).

Colonel Belisário Pimenta, the grandson of this modest entrepreneur, was born and raised in the same building where the *Typographia Auxiliar d'Escriptorio* was installed, and he knew of these remote facts (at his lifetime over one hundred years old) mainly by "family tradition".



The facade of the *Typographia Auxiliar*, in Coimbra, a woodcut by Belisário Pimenta.
Photo BGUC

His childhood connection to the workshop and the typographic milieu gave him occasion for several publications of both historical and sentimental nature, namely *"Uma tipografia ignorada em Miranda do Corvo, de 1845 a 1867"* (An ignored typography in Miranda do Corvo, from 1845 to 1867) (1955), *"Memórias dum aprendiz de gravador"* (Memories of an engraver's apprentice) (1961) and *"Memórias de uma tipografia"* (Memories of a print shop) (1970, posthumous), in addition to the *"Uma litografia desconhecida"* (An unknown lithography) (dated November 1947), a small text totally devoted to the early "lithography" of Miranda do Corvo.

To write some of these texts, he may probably have checked his family recollections against the experience and knowledge of the artist-blacksmith Lourenço Chaves de Almeida (1876-1952), of whom he was a friend and protector in the Infantry 23th regiment, where Belisário was then a Captain.

It is also true that a lithographic press is very different (less precise) than a typographic press and, therefore, having the ability to make one does not guarantee the ability to make the other.

However, Martins de Carvalho again informs us that one Galinha made yet another iron press in Coimbra, in 1854:

*"... in 1854, [Manuel Caetano da Silva] having acquired more experience in the typographic art ... he ordered a forged press in the workshop of Mr. Antonio Bernardes Galinha, of this city"*³¹ (Carvalho, 1868, p. 417)

António Bernardes Galinha was one of Manuel's brothers, with his own "foundery" established at nr. 29 of Quebra Costas St.³².

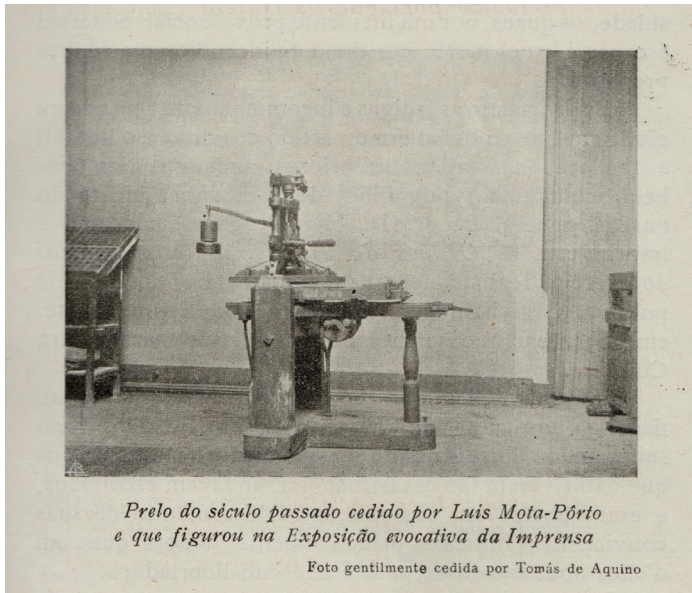
This information must be considered as reliable as any other provided by Carvalho, and it is again "confirmed" by Belisário Pimenta, who says:

31 In the original: "... em 1854, tendo adquirido mais experiência da arte typographica ... mandou fazer um prelo forjado na officina do sr. Antonio Bernardes Gallinha, d'esta cidade".

32 Queiroz, 2000, note 6 p. 14, p. 15.

*"And so, given the increase in printing work (...) six years after the construction of the second printing press [1854], Manuel Caetano da Silva had a third one made in wrought iron in the foundry of the famous António Fernandes [sic], of the well-known Galinha family from Coimbra, one of whom, Manuel Bernardes, had made the lithographic press, eleven years earlier."*³³ (Pimenta, 1955, p. 11)

The family's alleged authorship of 3 printing presses built between 1843 and 1854 (this last one in wrought iron) has to give us an altogether different perspective on their skills. And it has to come as vindication to those who think that Manuel Bernardes Galinha (1810-1864) may have been the author of the manual metallic press preserved in Coimbra's General Library.



The press in 1941. Photo by Tomás de Aquino, in Bandeira, 1947

33 In the original: "E assim foi que, dada a expansão dos impressos (...) Manuel Caetano da Silva seis anos depois da construção do segundo prelo, mandou fazer terceiro, em Coimbra, mas já de ferro forjado, na oficina do afamado António Fernandes [sic], da família dos muito conhecidos serralheiros conimbrigenses, um dos quais, Manuel Bernardes, fizera o prelo litográfico onze anos antes".

However, the second issue, that of the singularity of the solutions used in the press that we know today as “Galinha’s”, seems to be left unresolved: this wasn’t a “normal” design of any modern (or even older!) machine that Galinha could have copied, in 1845: the manual presses then used in Europe and America were the Stanhope or Clymer presses, large cast iron machines that could hardly have served as inspiration for the Galinha’s press(es), made in wrought iron.

The locksmith Manuel Bernardes Galinha made a living out of making balconies and iron gates; he was the designer and maker, for example, of the bars and gates of the Botanical Garden of the University of Coimbra. An exceptional artistic and technical achievement, to be sure, but that has nothing to do with the precision engineering required for building a printing press.



Plaque at the main gate of Coimbra’s Botanical Garden, 1844. Public Domain

An “alternative” history of the press

The University of Coimbra’s press appears to be very similar to an interesting 1772 iron hand press invented by Wilhelm Haas of Basel, Switzerland — the first known use of iron for the frame of a printing press and now lost.

The historian James Moran wrote that Haas's son, also Wilhelm, made improvements to his father's 1772 press including strengthening the frame, and made and sold several improved presses to "a German printer who was impressed by its capabilities" (Moran, 1978, p. 41): Wilhelm Haas-Decker (1766-1838), the son of the 1772 inventor, recorded in his "daybook" in 1784 (Haas, 1997, p. 23) undertaking the re-design of his father's press and having the re-designed press made by the Baron von Dietrich ironworks at Zinsweiler, Alsace. This was a large foundry with a forge operating two power hammers and using locally mined ore. Haas said the resulting press was completely satisfactory and was still fully functional 50 years later³⁴.



Wilhelm Hass Munch's press of 1772, according to his son. Public Domain

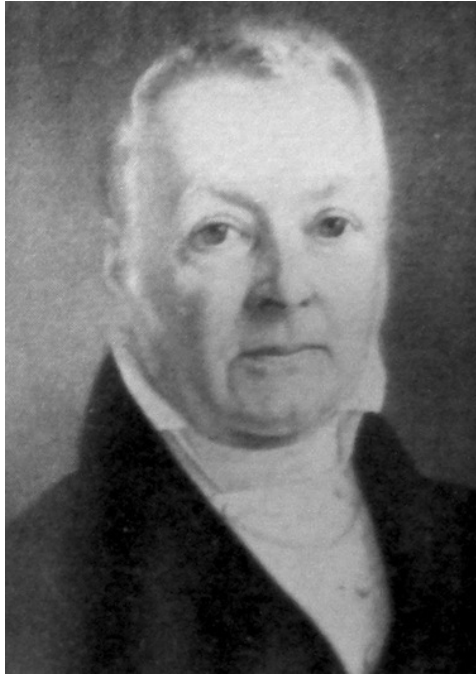
³⁴ That would have been about 1834; Haas died in 1838, aged 72, but his sons Georg Wilhelm Haas (1792-1853) and Karl Eduard Haas (1801-1853) had been in charge of the print shop since 1830.

There are many features of the Coimbra press that are closely similar to the earlier Haas press: the form of the frame and the dimensions of the platen and bed, as well as the materials of the latter, are the most salient. Haas' father's press had been disadvantaged by its weight, as the base was a roughly 500 kilogram block of stone; and by the improved impression mechanism, which if operated too vigorously could break the cast iron frame. The Coimbra press has a wooden base; the frame is of wrought iron, much stronger than cast iron, and the impression mechanism is a compound lever system with a fixed stop to prevent accidentally over-stressing the press. One feature that harks back to the wooden-press era is the bed and the rails it moves on, which are, as they were for 400 years, made of wood, with a stone for the hard surface onto which the type was placed.

The compound lever impression mechanism is also a feature of the Stanhope press (considered among the "Stanhopean principles" by James Moran), first produced in England in about 1800 by Robert Walker using the ideas and under the direction of Charles Mahon, 3rd Earl Stanhope (1753-1816). Although the earliest known Stanhope press had a cast iron "staple" (the part of the frame where the mechanism is housed), its base was wood. This first press has been lost.

Lord Stanhope is said to have visited Basel near the turn of the century. If so, he probably saw the improved press in the Haas Type Foundry and Printing Office, though we have not found a written record of such a visit³⁵.

35 Moran, 1978, p. 49 records that Earl Stanhope was in Geneva until February 22, 1774 (also Stanhope, 1914, p.18) and raises the question of him being "accused of copying Haas", the father, but discards that accusation. Young Charles Mahon "Stanhope" and his parents lived in Geneva from 1763, after his older brother died there, until 1774, while he completed his formal education. He was 21 years-old when they returned to England. He was interested in Science but there is no mention of an interest in the problems of printing.

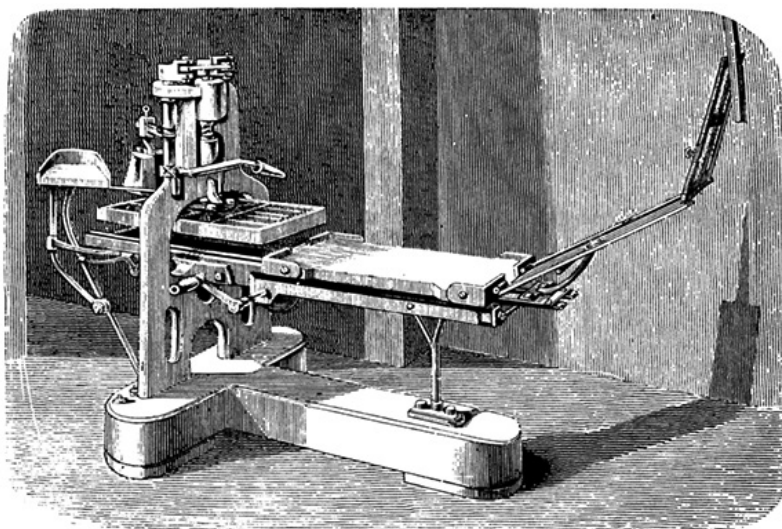


Wilhelm Haas Decker. A portrait reproduced from Devroye, 2020

So the Coimbra press seems to solve all the problems of the Swiss 1772 prototype by Haas, the father, and a comparison with an early Stanhope shows strong similarities between them, including the T-shaped heavy wood base. But the Stanhope press was made to be able to print a much larger area, and one consequence of that was that the cast iron frames of many of the early English Stanhopes were broken by an overtly vigorous over-use of the press's capacity. The wood base of the early Stanhopes was in the same form as the lower base of the Coimbra press, a massive T-shape. The Stanhope frames were repeatedly redesigned to be thicker and reinforced with added thickness around the central opening. By about 1815, when the first Stanhopes were introduced in France, the presses no longer closely resembled the Haas press or the Coimbra press.

As a result of this evolution of the press's form, when Manuel Bernardes Galinha was reported to have made the Coimbra press

in 1845, the Stanhope was not only a very different press but it had largely been superseded by other improved all-iron hand presses with very powerful toggle mechanisms and completely different forms. Yet the press attributed to Galinha most closely resembles the very early Stanhopes (though it is smaller) as well as the expected differences in the improved Haas press of Basel (considered lost), including the wooden base — also a feature, though built differently, of the earliest known Stanhope.



An early Stanhope press, from Stower's *Printer's Grammar*, 1808

By the time Galinha was working in Coimbra, it had become common practice in Europe for hand presses to change hands as improved presses made them obsolete, and they were sold to smaller printers who could not afford the newer machines and for whom the older hand press was still a suitable machine. Usually, these second-hand presses needed some work to make them fully serviceable, and moving them and setting them up in their new homes required the skilled assistance of specialised “printers engineers”. It was also common practice that the printer’s

engineers put their own identification plate on the press they had fixed and installed.

In 1845, there probably was no such specialist yet in Coimbra, but the very skilled locksmith and blacksmith Manuel Bernardes Galinha could have been of help, though he probably wasn't very well acquainted with typographic printing presses³⁶.

Consequently, it is possible that the press now kept in the Biblioteca Geral at the University of Coimbra was actually made in Basel, Switzerland, about 1784 by W. Haas, used there for over 50 years, and then sold to Augusto Ferreira Pinto Basto, who wanted to start a newspaper. Pinto Basto was a capitalist who possessed all the necessary European connections to be able to import such a used machine to Coimbra³⁷.

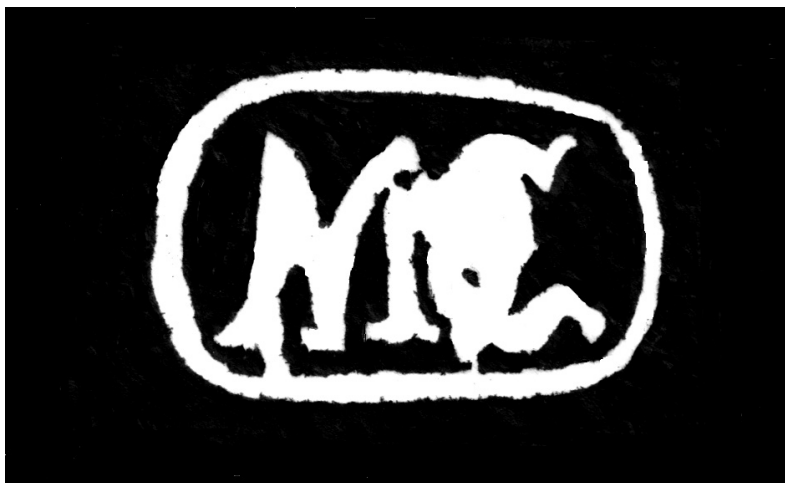
According to this hypothesis, Manuel Bernardes Galinha was hired to make repairs to the then 60-year-old machine, which he did skilfully, and placed the cast brass identification plate stating "M. GALINHA / EM / COIMBRA"³⁸ on the front to show he had done the work.

During the 2019 restoration work, we also found Galinha's "MG" initials struck in the outside of a hand crank he probably had to remake. The few hex nuts probably date from his intervention too, the original nuts being square ones.

36 Despite the fact that he is credited with building a stone lithography press in 1843, and his brother made a "forged" iron press in 1854, as explained above.

37 Dr. Stephan Füssel, professor at Johannes Gutenberg University in Mainz, Germany, and author of many books on printing history, says in his preface to a modern reprint by Taschen of Bodoni's *Manuale Tipographico* that "[Georg Joachim Göschen] procured an iron printing press and a machine for smoothing paper from Wilhelm Haas in Basel in 1792" (Füssel, 2010).

38 Meaning "*M. Galinha in Coimbra*". It is worth noting that when Galinha made the gate for the University Botanical Garden in 1844 he placed next to it a plate stating "*M B(ernar)des Galinha o fez em Coimbra*" but "made it" ("*o fez*") is not present in the plate on the press.



The “MG” monogram of Manuel B. Galinha. Photo BGUC

The series of events allegedly connected with this press can be listed like this:

- 1784 Wilhelm Haas-Decker improved his father’s metallic printing press.
- 1790 Haas starts selling his presses abroad and prints a booklet on his father’s invention and his own contribution.
- 1792 The German printer Georg Joachim Göschen (1752-1828), from Leipzig, buys 3 iron printing presses from Wilhelm Haas-Decker
- 1797 Göschen moves his print shop to Grimma.
- 1830 Georg Wilhelm Haas and Karl Eduard Haas take charge of the Haas’ Type Foundry and Printing Office
- ca. 1834 The improved wrought iron press by Haas was still working in Basel.
- 1843 Manuel Bernardes Galinha “makes” a lithographic press.
- 184-? Augusto Valério Ferreira Pinto Basto buys an old metallic handpress?

- 1845 Manuel Bernardes Galinha is commissioned to repair this press.
- 1847 The press is purchased for the new print shop of the *O Observador*.
- 1850 The print shop moves to Trindade's College.
- 1852 The press is unused since the *O Observador* is printed (after nr. 476) at Elvira Trovão's.
- 1866 The press is bought by Francisco dos Santos e Silva and installed at Borges Carneiro St.
- 1867 Francisco dos Santos e Silva's print shop moves to Correios St.
- ca.1873 The press is bought by Bernardo António Serra de Mirabeau or Bernardo de Serpa Pimentel for the University Library.
- 1880? The press is lent to the University's Botanical Institute.
- 1941 The press was repaired to be displayed and actually used in a temporary exhibition, in Lisbon.
- 1990? The press is installed in the ground-floor of Joanina Library.
- 2019 The press is restored under the supervision of Bob Oldham.

Conclusion

If this is how events transpired, the press in Coimbra is the oldest surviving iron hand press in the world. If, in fact, Galinha made it in Coimbra, it is just as rare a piece — given that, being made of wrought iron instead of cast iron, it is unique in Europe as far as we know.



The restored Haas-Galinha press. Photo by Bob Oldham, 2020

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Appendix

Dois prélos históricos

Ha em Coimbra dois prélos typographicos, que teem passado por tantas vicissitudes, com talvez não haja outros no reino.

O primeiro é um prélo de madeira, que em Agosto de 1833 saiu da imprensa da Universidade, e foi com o exercito de D. Miguel (...)

[references to the wooden printing press are omitted]

O outro prélo foi feito em 1845 na oficina do hábil serralheiro, Manoel Bernardes Gallinha, estabelecido na rua da Sophia, com o fim de nelle se imprimir um periodico da opposição, que devia ter o nome de *Conimbricense*, mas que não se chegou a publicar, pelas prepotencias das auctoridades cabralinas.

Em Novembro de 1847, quando se tratou de publicar o *Observador*, foi comprado esse prélo.

Esteve elle na rua do Guedes, desde 16 de Novembro de 1847 até 9 de Setembro de 1848, em que passou para a rua da Mathematica.

Em 1 de Outubro de 1850 foi esse prélo para o cimo da rua da Trindade, nas casas vulgarmente chamadas da *Ilha*.

No dia 31 de Dezembro de 1850 foi ainda mudado o prélo para o collegio da Trindade, na mesma rua, onde esteve até 24 de janeiro de 1852, em que o *Observador* passou a ser impresso na imprensa de *Elvira Trovão*, na rua de Sargento-Mór.

A grande sala do collegio da Trindade, onde esteve o referido prélo até ao dia 24 de janeiro de 1852, é a mesma – e bem poucas pessoas o saberão – em que existiu posteriormente a nossa loja maçónica – *Patria e Caridade* – fundada em Outubro do referido anno de 1852, e de que foram *veneraveis* dois académicos – sendo o primeiro o fallecido Francisco Castanheira das Neves, e o

segundo o nosso amigo o sr. Filippe de Quental, actualmente lente de Medicina.

Tinha sido creada esta loja maçónica expressamente para promover auxílios pecuniários, com que podesse ser sustentada a nossa *Sociedade de instrução dos operários*; e effectivamente diferentes espectáculos em seu beneficio foram promovidos pela loja *Patria e Caridade*.

O mencionado prélo do *Observador* foi em 1866 comprado pelo impressor, já fallecido, Francisco dos Santos e Silva, que com ele estabeleceu uma imprensa na rua das Covas, hoje de Borges Carneiro, d'onde passou para a rua das Fangas, hoje de Fernandes Thomaz.

Querendo posteriormente adquirir um prélo maior vendeu Santos e Silva o seu prélo á bibliotheca da Universidade, sendo por esta adquirido para nelle imprimir os catálogos dos livros.

Ainda ultimamente foi esse prélo para o edificio de S. Bento, na parte ao serviço do jardim botânico, a fim de nelle se imprimirem as etiquetas das plantas do jardim.

Ahi se acha hoje esse famoso prélo, depois de passar por tantas vicissitudes, desde que foi feito em 1845.

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