ATLAS

F.A.S.
309

PROCEDENTE DE LA BIBLIOTECA DEL CORONEL DE ARTILLERIA DON AUGUSTO PLASENCIA, CONDE DE SANTA BARBARA, POR DONACION DEL COMANDANTE DE ESTE ARMA DON FRANCISCO CARMONA Y PEREZ DE VERA.

al tratado de la teoria y fabricacion

PÓLVORA EN GENERAL,

DE PIEZAS DE ARTILLERIA

Y

LOS PROYECTILES DE HIERRO.

FABRICA DE ARTILLERÍA DE SEVILLA BIBLIOTECA SECCIÓN N.º 65

DON CLAUDIO DEL FRESNO Y DE JOAQUIN DE BOULIGNY,

del arreglo y aprobado de la [illegible] Academia de [illegible] arma.

del artículo sobre fundicion de artillería de bronce, redactado de orden superior por el Coronel [illegible] Comandante del mismo cuerpo

DON PEDRO LUJAN,

[illegible] maestro de Sevilla.

PARA SERVIR DE TEXTO EN LA ENSEÑANZA DE LOS CABALLEROS CADETES DE ARTILLERIA

SEGOVIA:
IMPRENTA DE D. EDUARDO BAEZA.
1845.

65

ATLAS

PERTENECIENTE

al tratado de la teoria y fabricacion

DE LA

PÓLVORA EN GENERAL,

LAS PIEZAS DE ARTILLERIA

Y

LOS PROYECTILES DE HIERRO,

POR LOS CORONELES GRADUADOS, CAPITANES DE ARTILLERIA

DON CLAUDIO DEL FRAXNO y DON JOAQUIN DE BOULIGNY,

profesor y ayudante de la clase de ciencias naturales de la academia de su arma.

SEGUIDO

del artículo sobre fundicion de artillería de bronce, redactado de órden superior por el Coronel 1.er Comandante del mismo cuerpo

DON PEDRO LUJAN,

fundidor mayor de Sevilla.

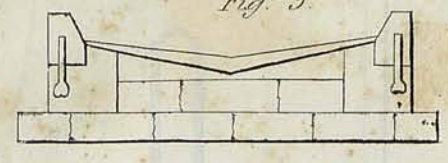
PARA SERVIR DE TESTO EN LA ENSEÑANZA DE LOS CABALLEROS CADETES DE ARTILLERIA.

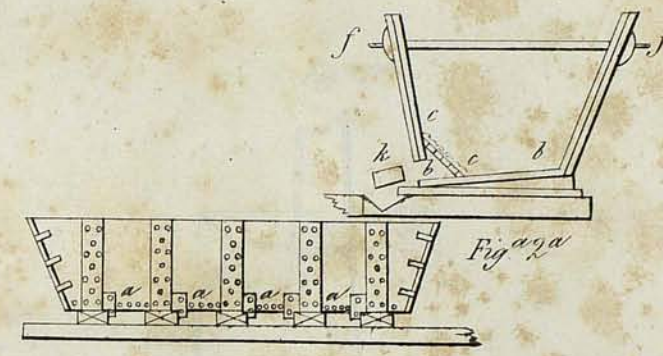
SEGOVIA:

IMPRENTA DE D. EDUARDO BAEZA.

1848.

Figª 5ª



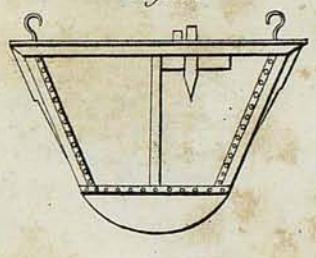


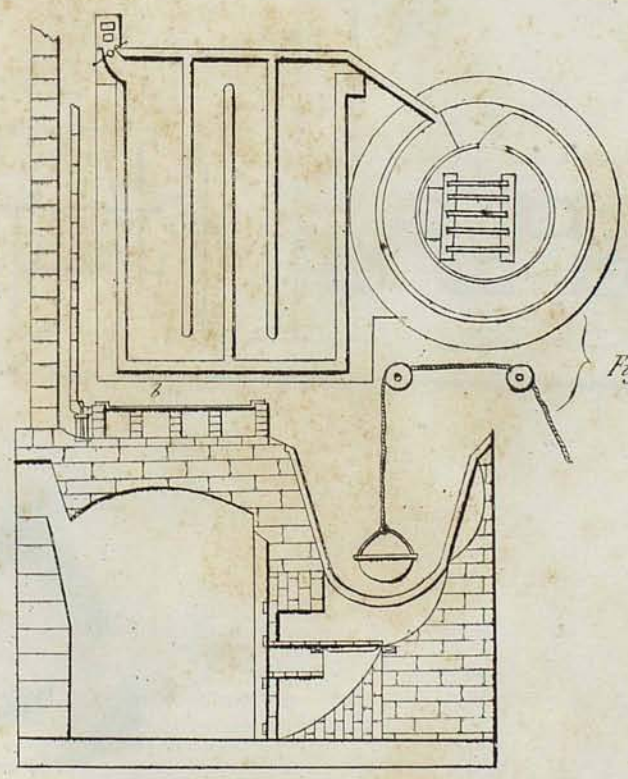
Figª 2ª

Figª 6ª

Figª 1ª

Figª 3ª





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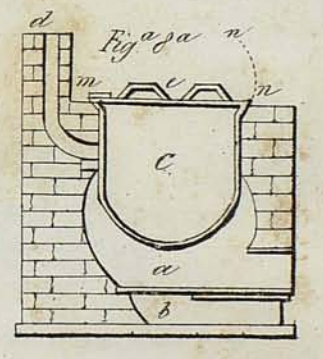

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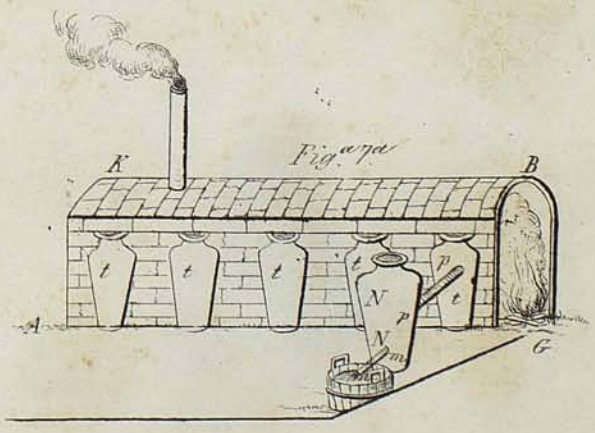
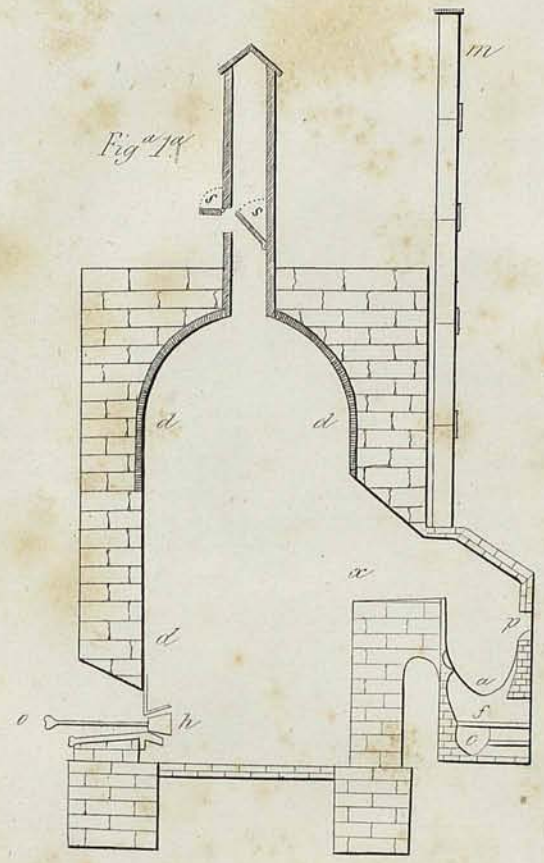


Figª 7ª

Fig.ª 1.ª



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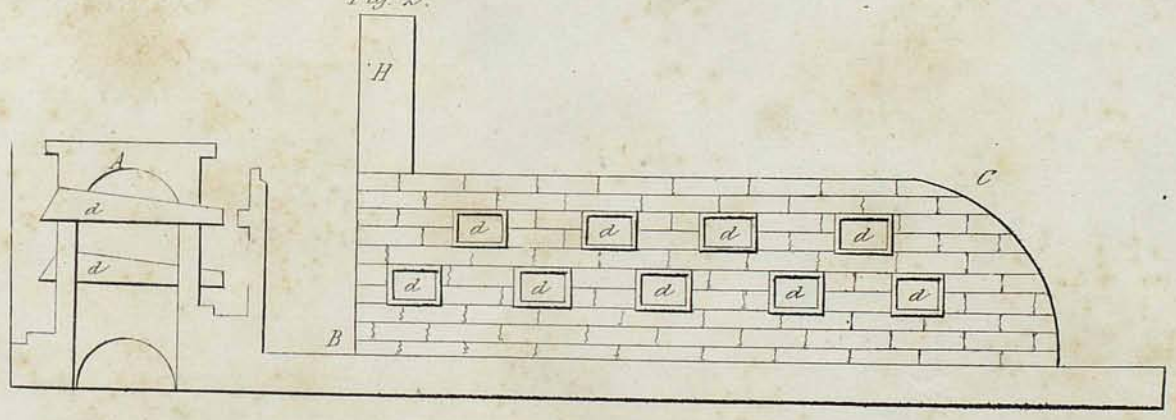

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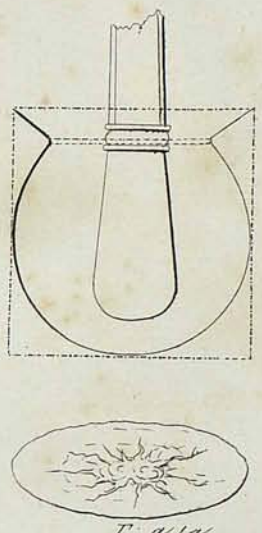
Fig.ª 4.ª



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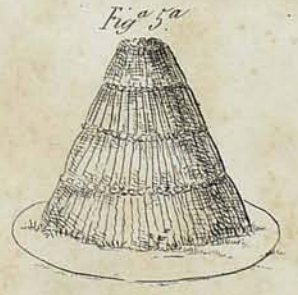

Fig.ª 6.ª

M. P. C. grav.

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Fig.ª 1.

Fig.ª 2.

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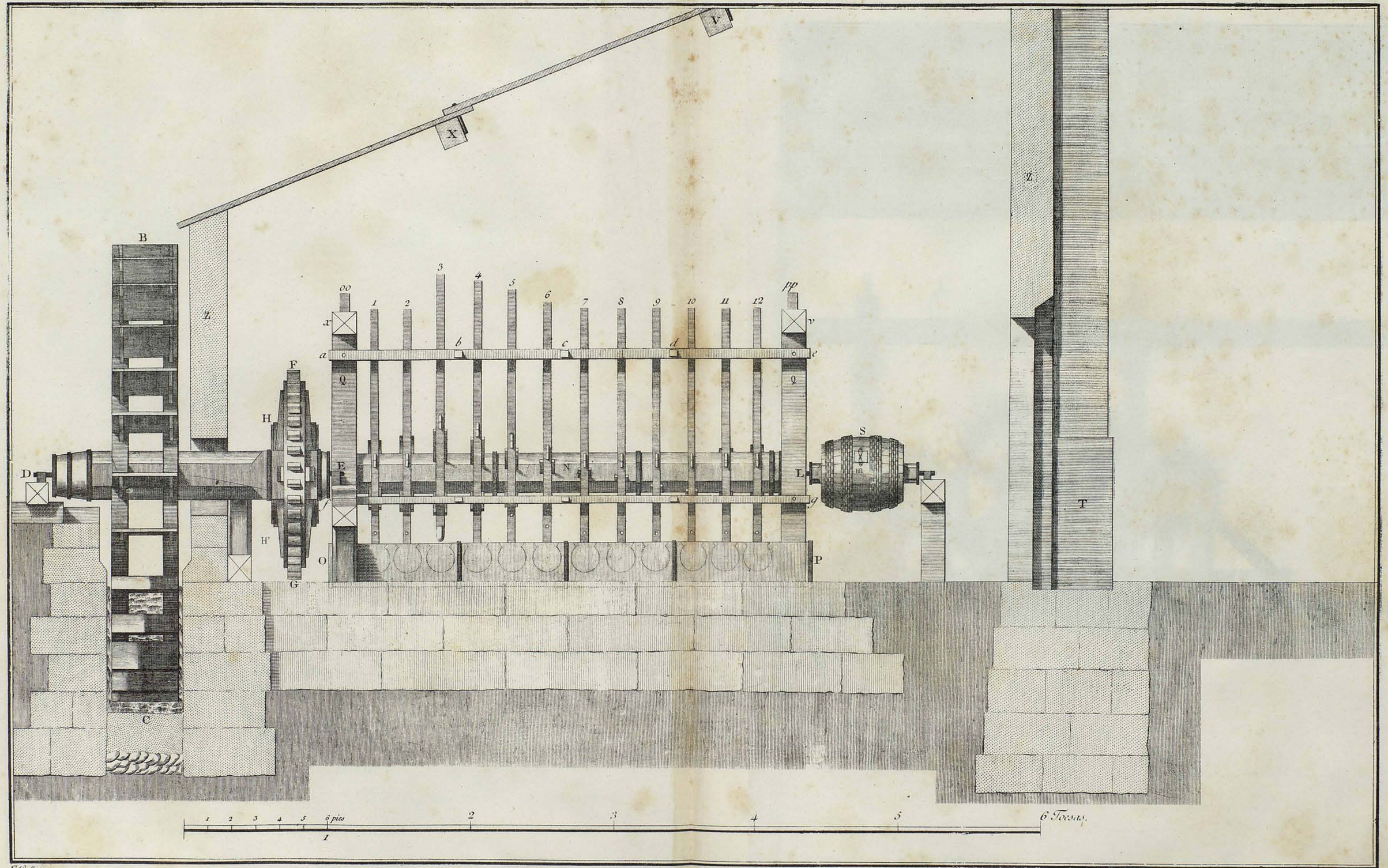
5ª Toesas.

M. Perez de Castro gra.

Lit. de Ar.t.ª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J. Ballester

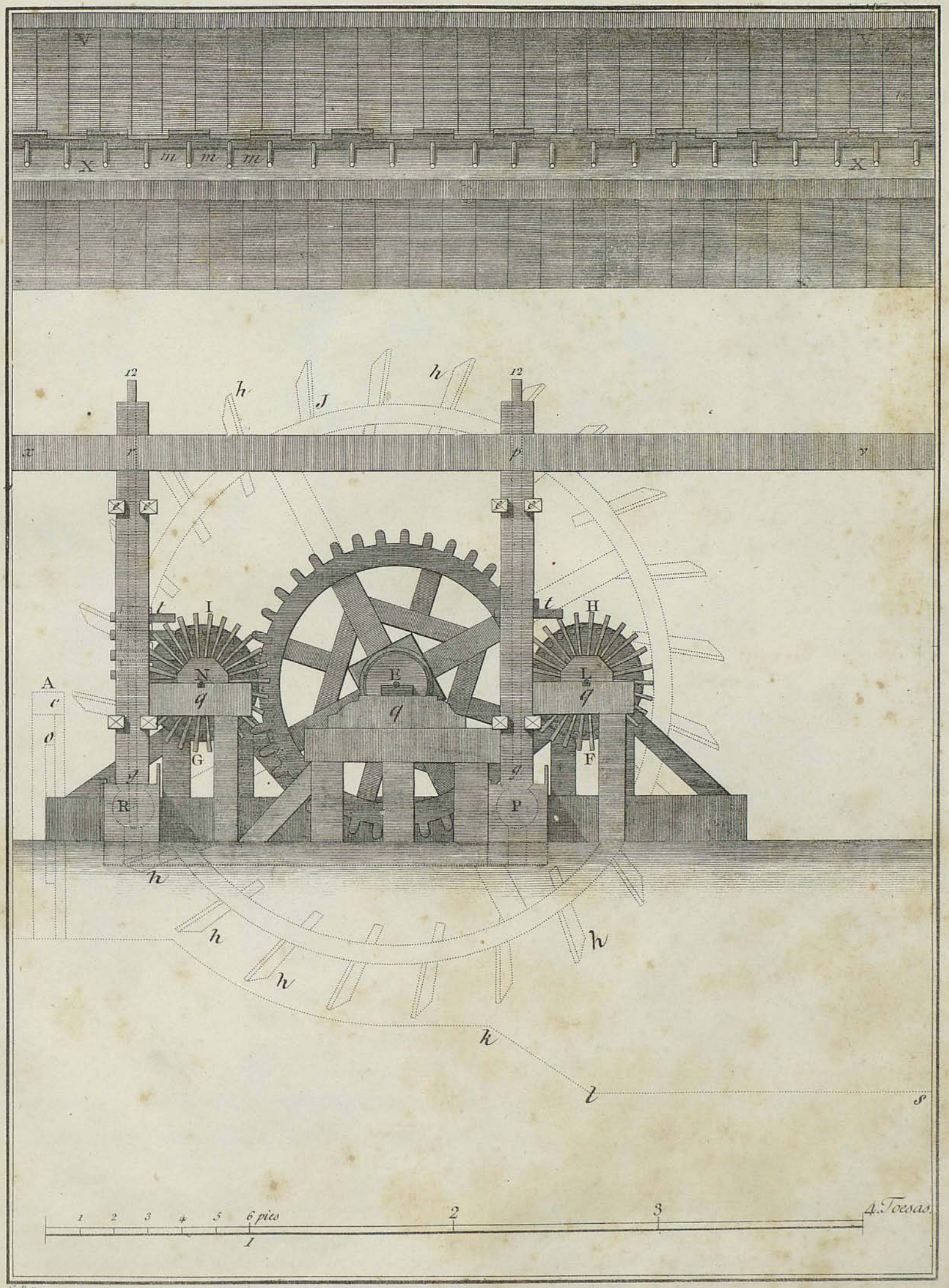
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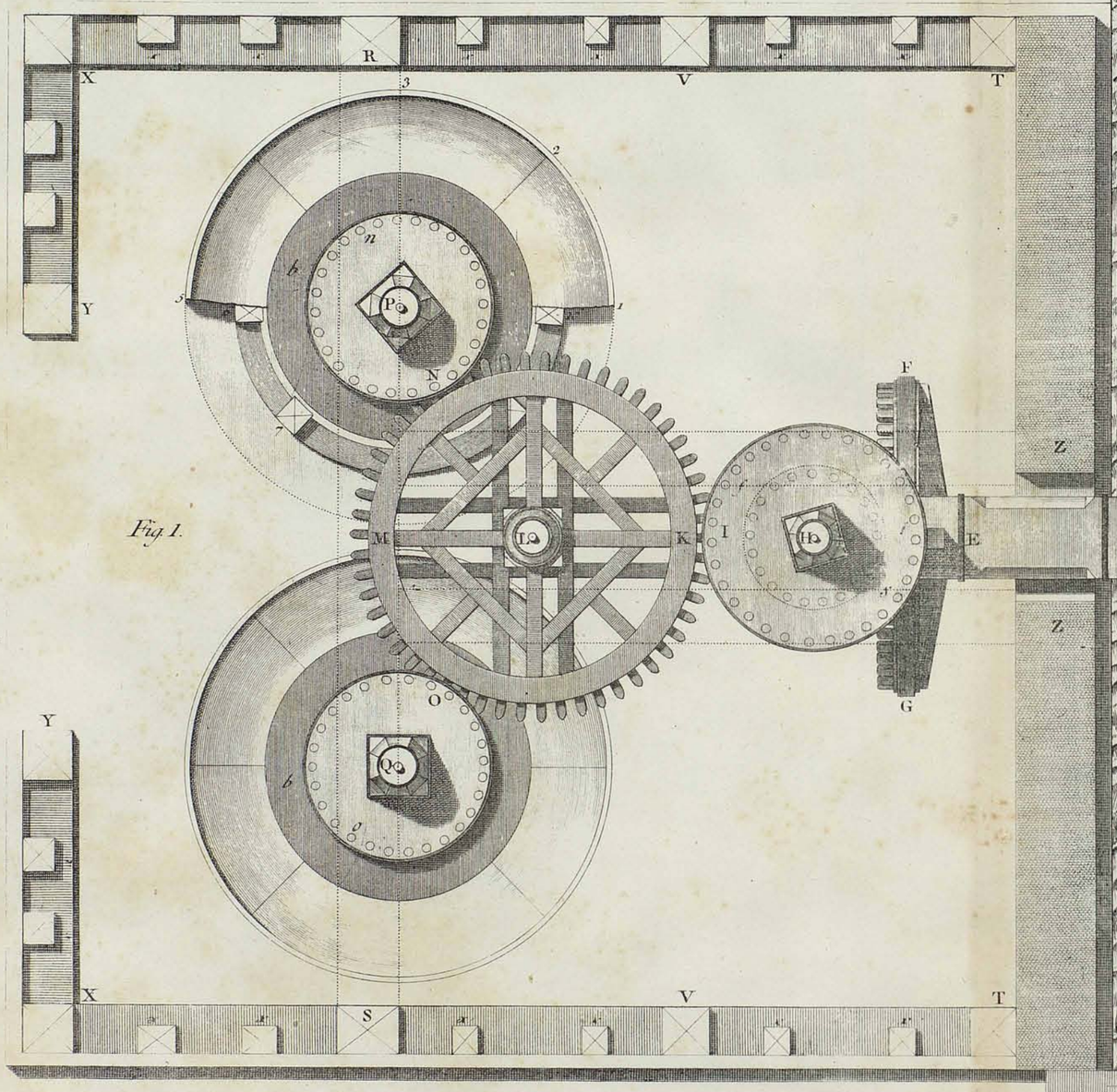
Fig. 1.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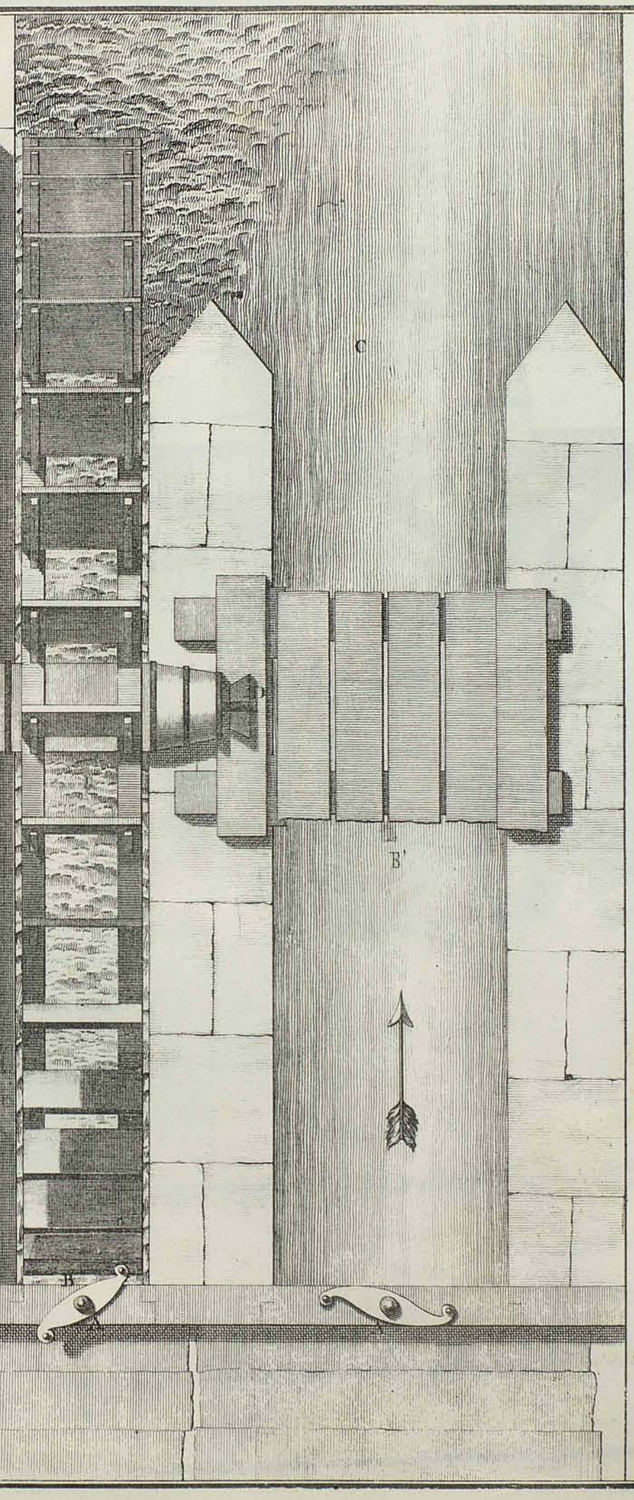
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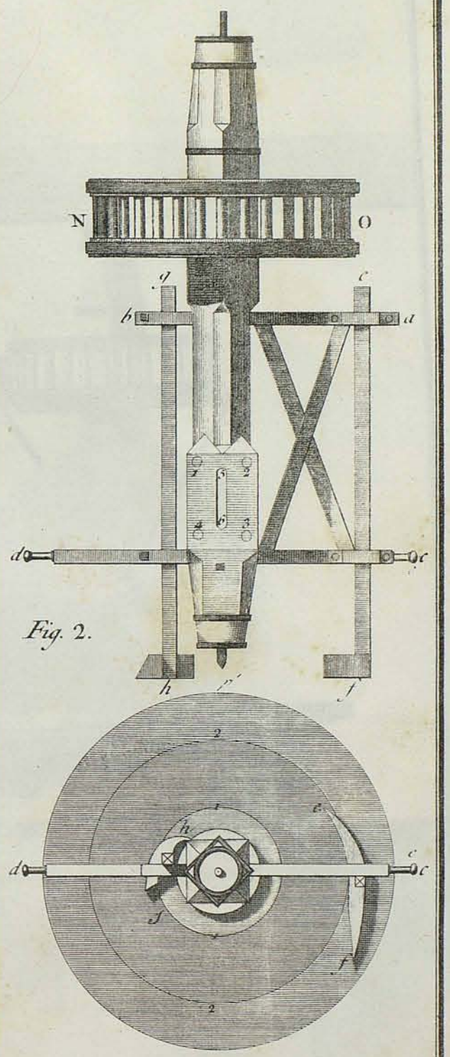
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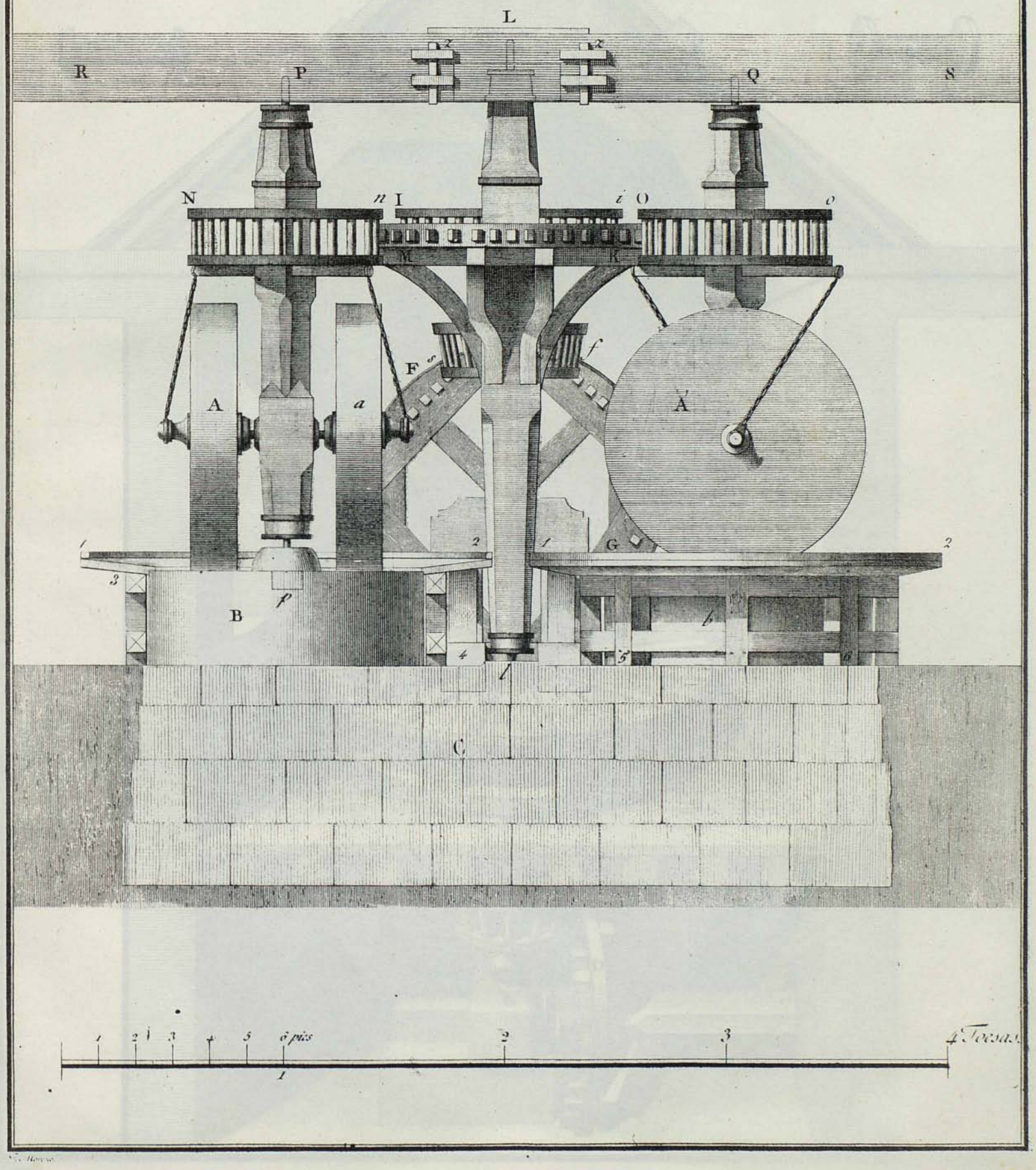
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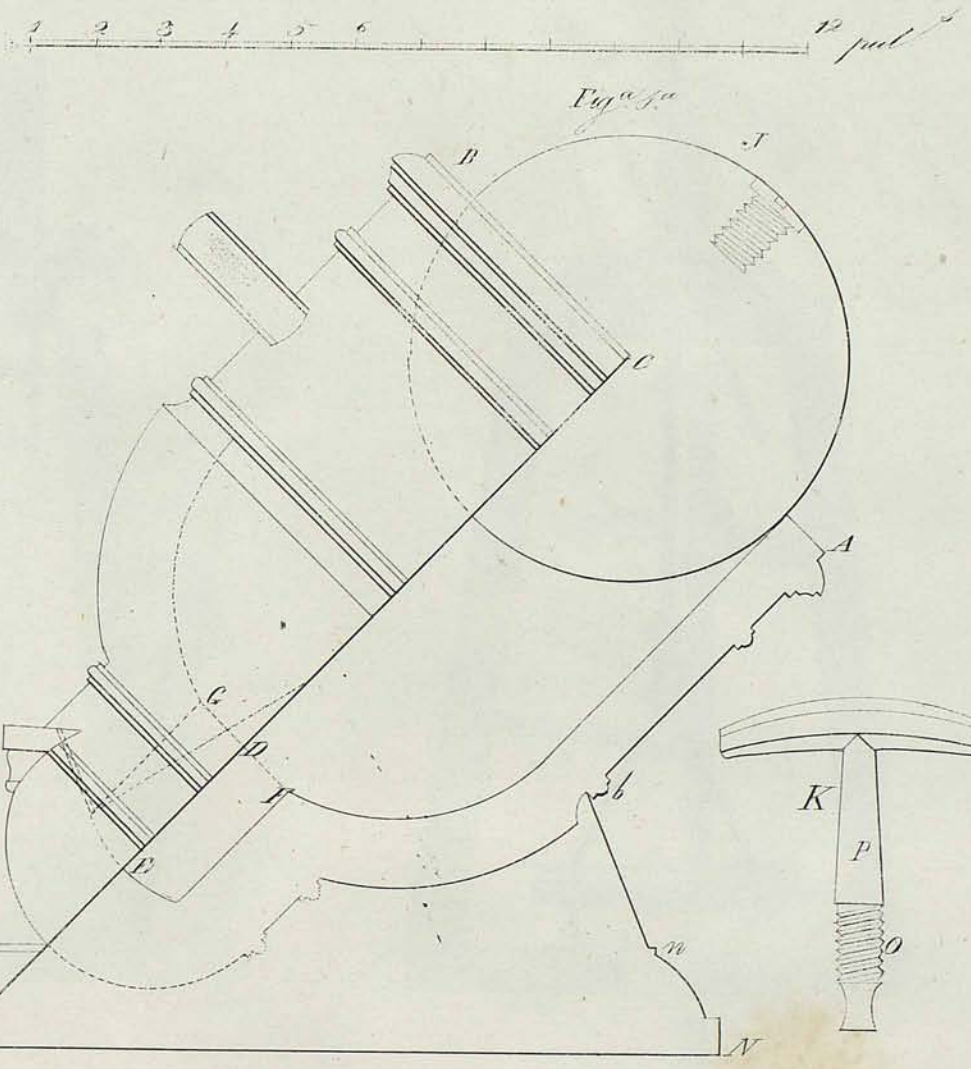
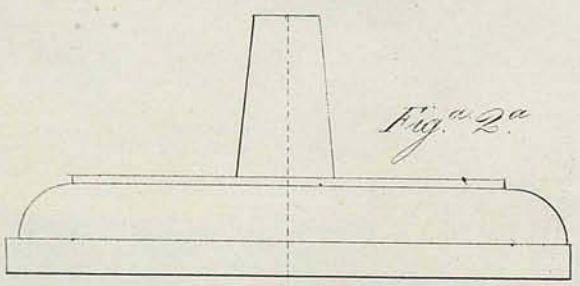
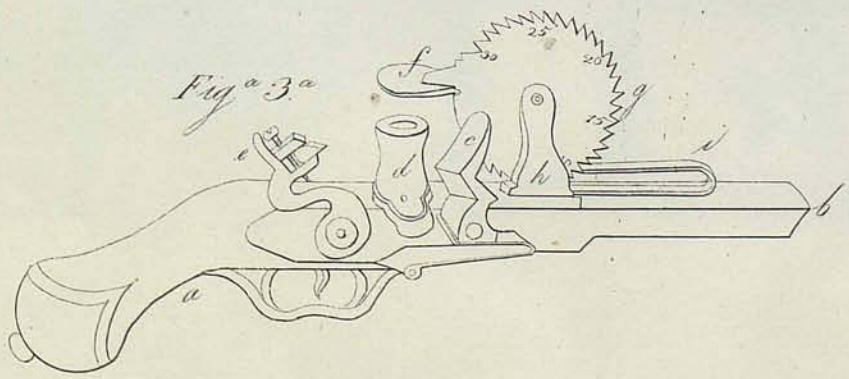
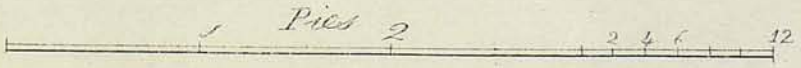
Fr. Selma.

Lam.a 9a









M.P. de C.gra.

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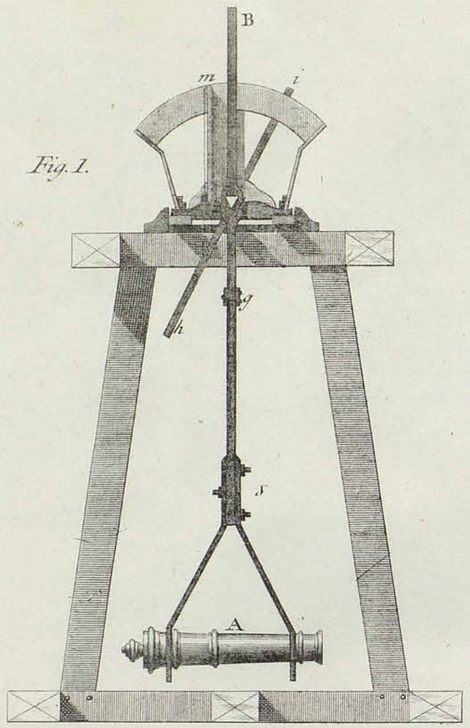

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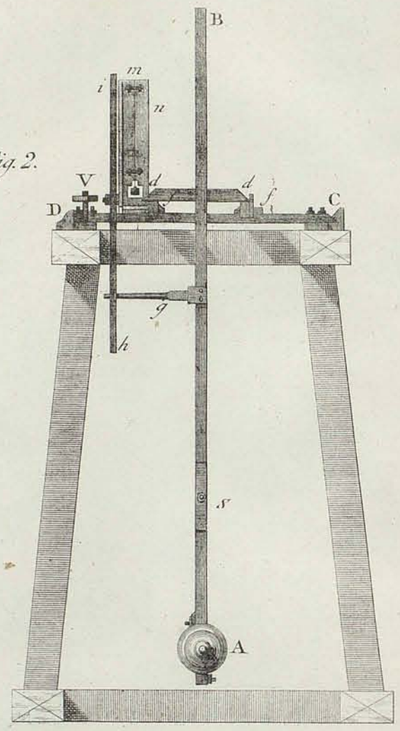

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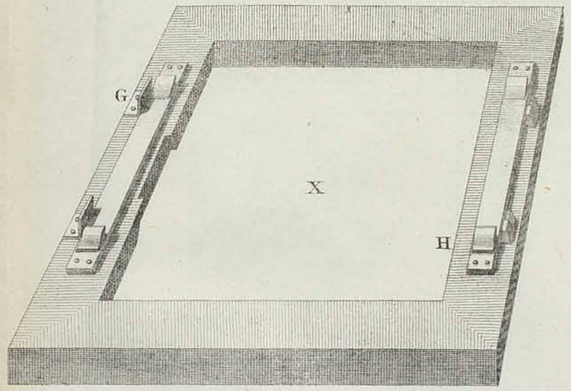


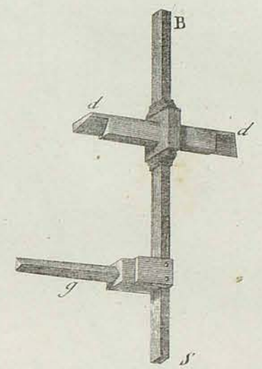
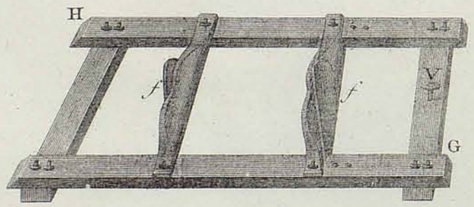


Fig. 6.

Fig. 3.



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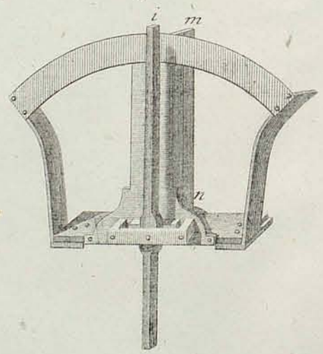

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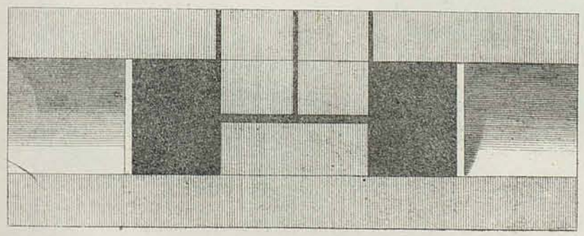

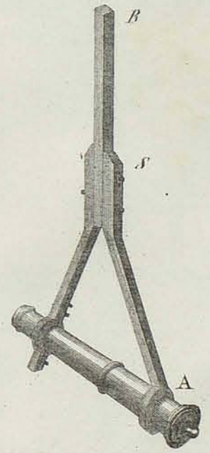

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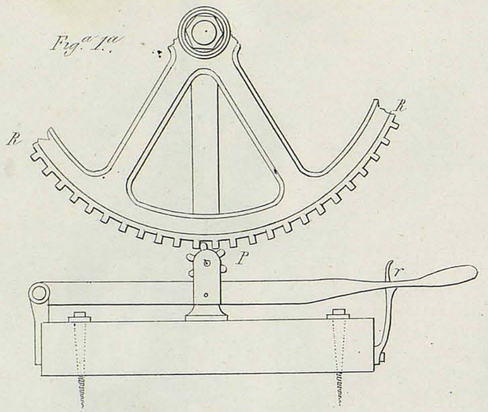

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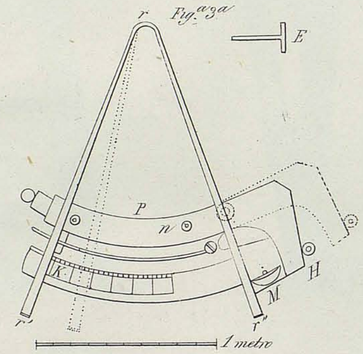

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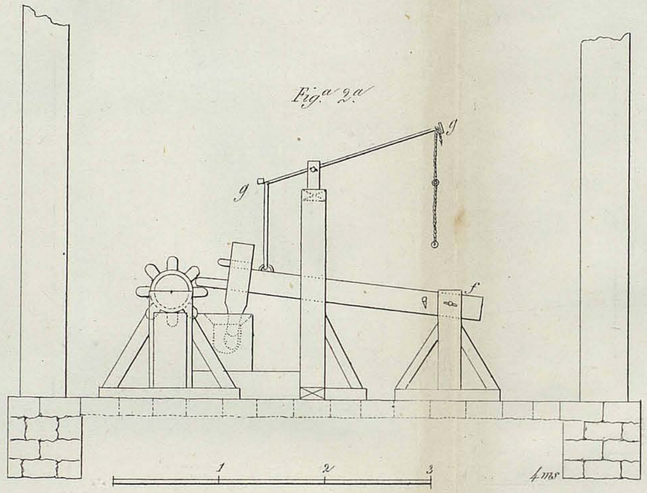

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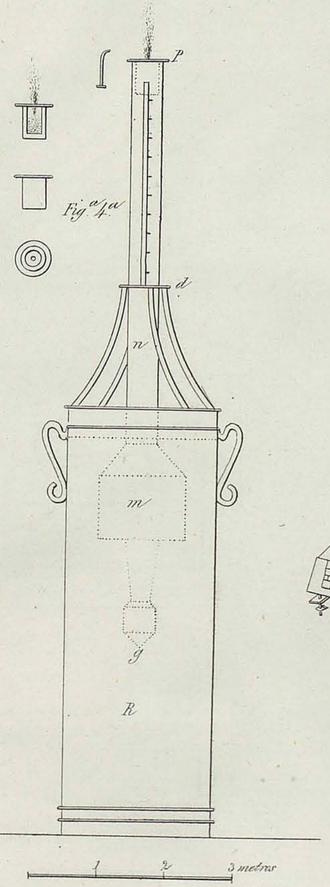

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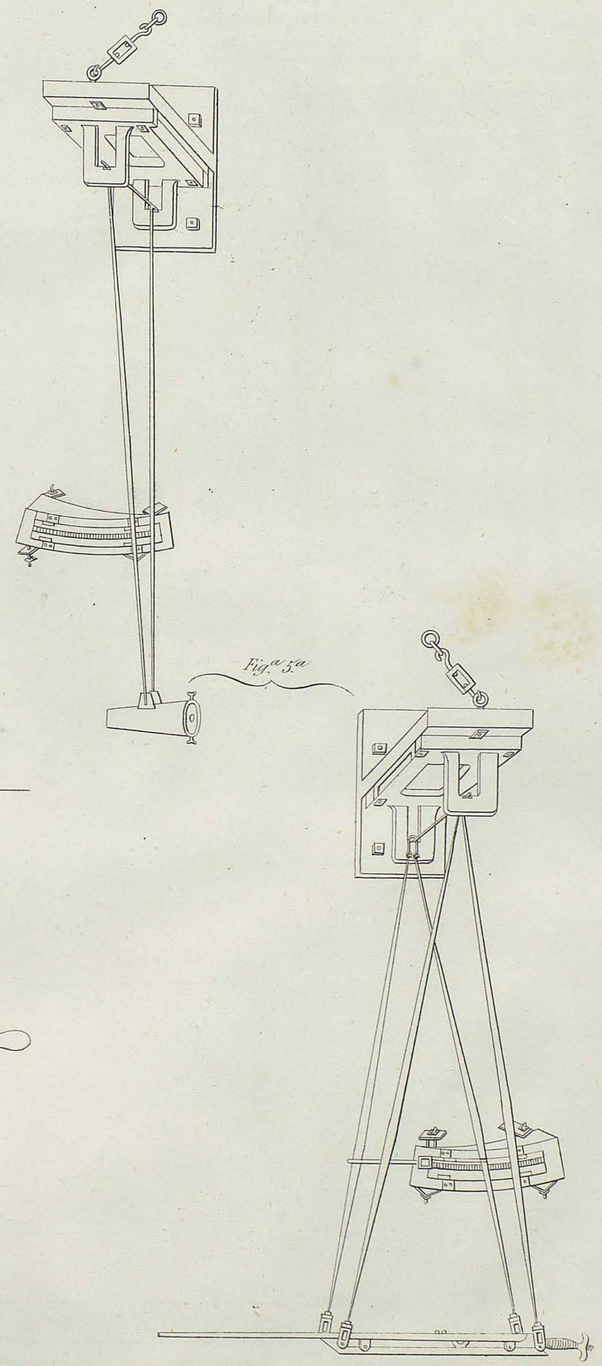

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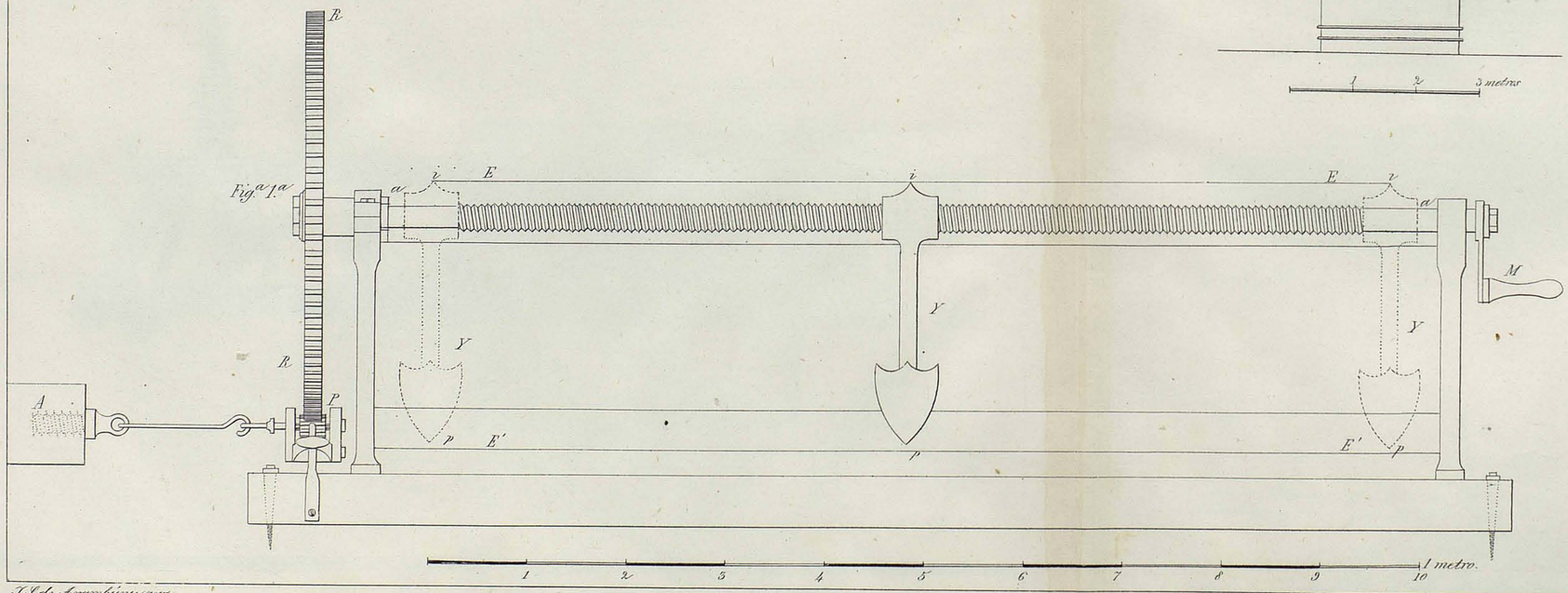

T. I. de Arambiru Hnos

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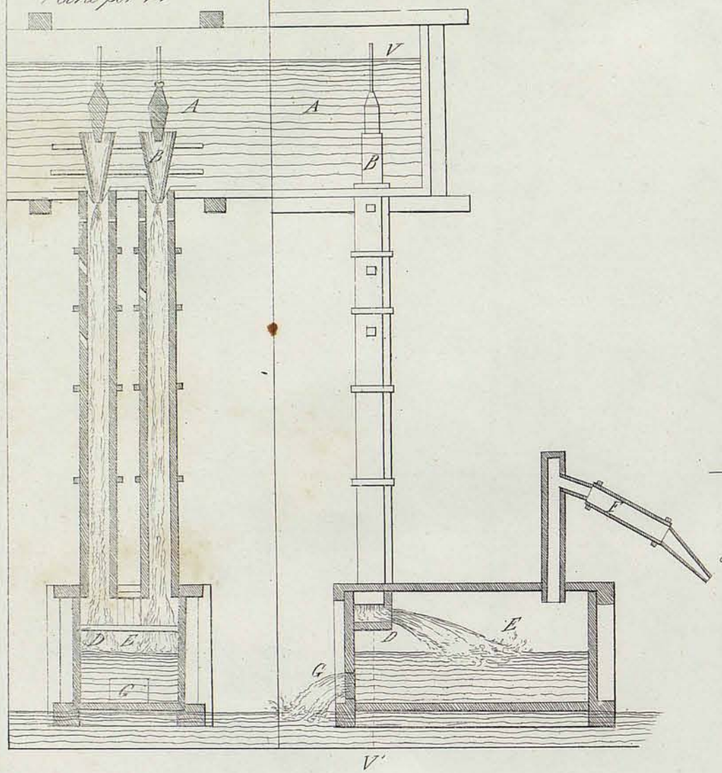
Fig.ª 8.
Corte por VV'

Fig.ª 9.
Elevacion lateral



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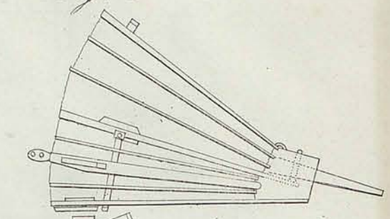


Fig.ª 2.
Corte por VV'

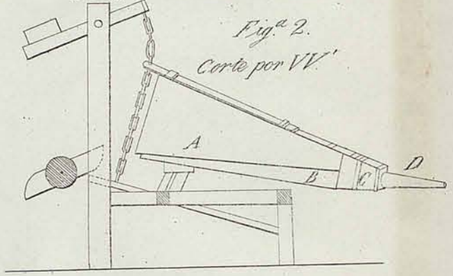
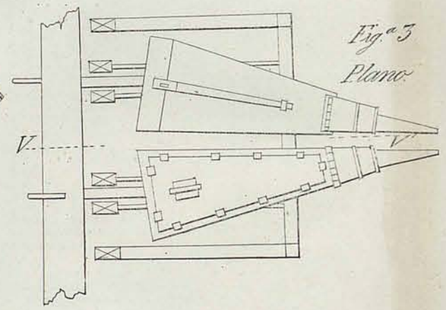


Fig.ª 3
Plano



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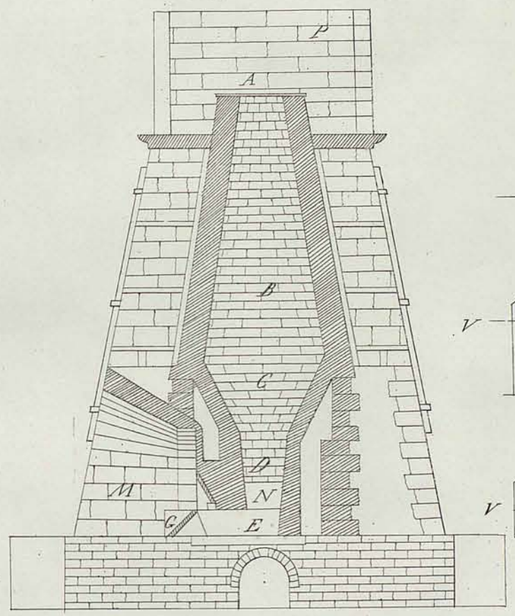
Corte vertical



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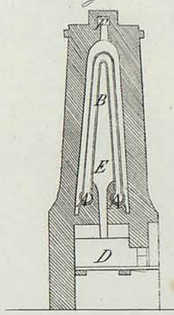

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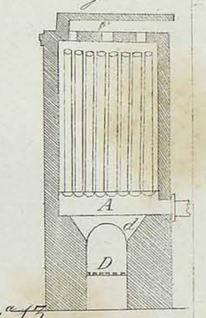
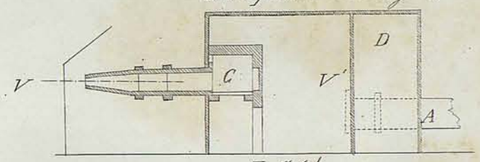


Fig.ª 13.
Corte por VV' de la Fig.ª 14.



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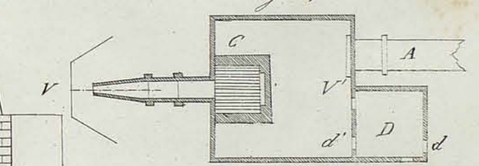

Corte por VV de la Fig.ª 13.

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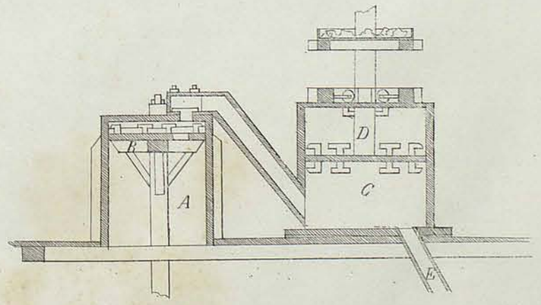
Escala de 0,m01 p.ª las Fig.ª 10, 11, 12, 13, y 14.

Fig.ª 4



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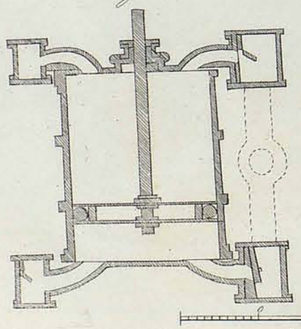


Fig.ª 5.

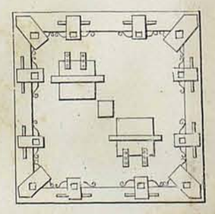
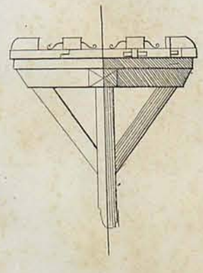


Fig.ª 6.



Escala de 0,m015 para las Fig.ª 1, 2, 3, 4, 7, 8, 9.

0 1 2 3 4 5 6 7 metros.

Figuras 1, 2 y 3, horno de Loja.

Fig.ª 1.ª

Fig.ª 2.ª

Fig.ª 3.ª

Fig.ª 4.ª

Fig.ª 5.ª

Fig.ª 6.ª

Fig.ª 7

Fig.ª 8.ª

Fig.ª 9.

Fig.ª 10.

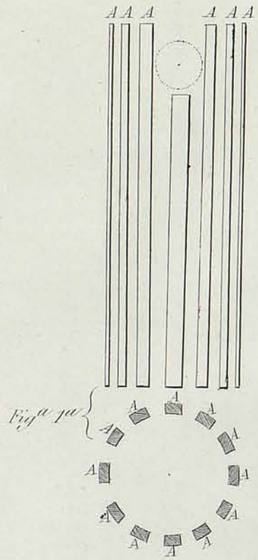
0 1 2 3 0.01 por metro m.s

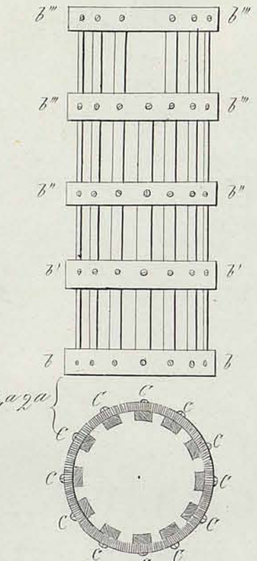
1 2 Metros

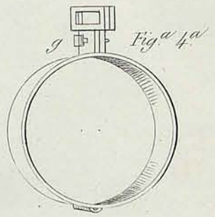
Escala de $\frac{1}{50}$ del natural.

M.P. de C.gra.

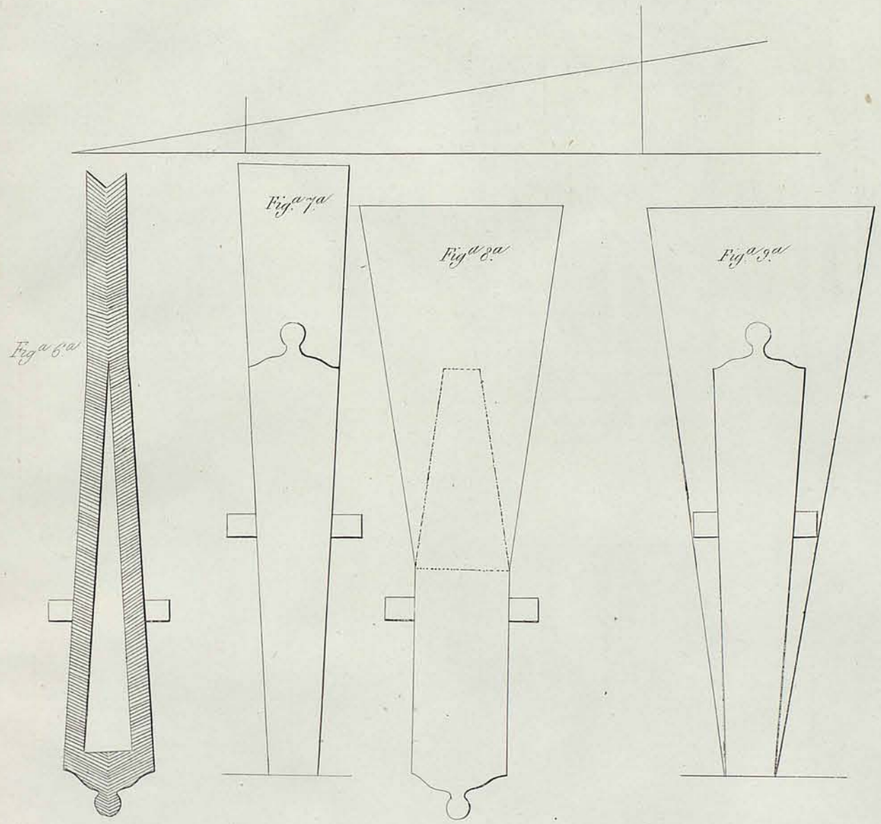
Lit.ª de Art.ª

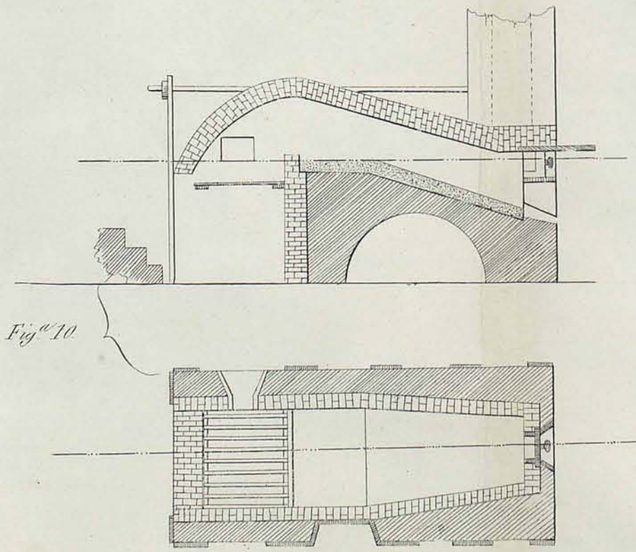


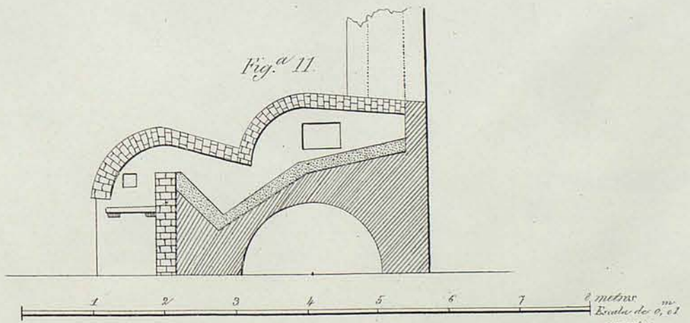




Escala de $\frac{1}{20}$ por metros para las figs 1ª 2ª y 3ª







Para las Figuras 10 y 11.

M. Perez de Castro grav.
Lit. de Arb.ª

Fig.ª 1.ª

Fig.ª 11.

Fig.ª 12.

Fig.ª 9.

Fig.ª 9.ª

Fig.ª 22.

Fig.ª 31.

Fig.ª 33.

Fig.ª 34.

Fig.ª 30.

Fig.ª 24.

Fig.ª 25.

Fig.ª 26.

Fig.ª 23.

Fig.ª 32.

Fig.ª 35.

Fig.ª 36.

Fig.ª 13.

Fig.ª 7.ª

Fig.ª 16.

Fig.ª 17.

Fig.ª 28.

Fig.ª 29.

Fig.ª 2.

Fig.ª 27.

Fig.ª 21.

Fig.ª 5.ª

Fig.ª 6

Fig.ª 3.ª

Fig.ª 4.ª

Fig.ª 15.

Fig.ª 10.

Fig.ª 18.

Fig.ª 19.

Fig.ª 20.

Escala de 0.m 20. p.s las fig.s 1. 10. 11. 12. 15. 16. 17. 18. 19. 20. 21.

Escala de 0.m 10. p.s las fig.s 2. 3. 4. 5. 6. 7. 8. 9. 13. 14. 24. 25. 26. 34. 35. y 36

Escala de 0.m 40. p.s las fig.s 22 y 23.

Esc.ª de 0.m 25 p.s las fig.s 27. 30. 31. 32. 33.

Escala de 0,m 02 p.s las fig.s 28. y 29.

M.P. de Castro gra.

Litog.ª de Avelly.ª

Fig. 3.

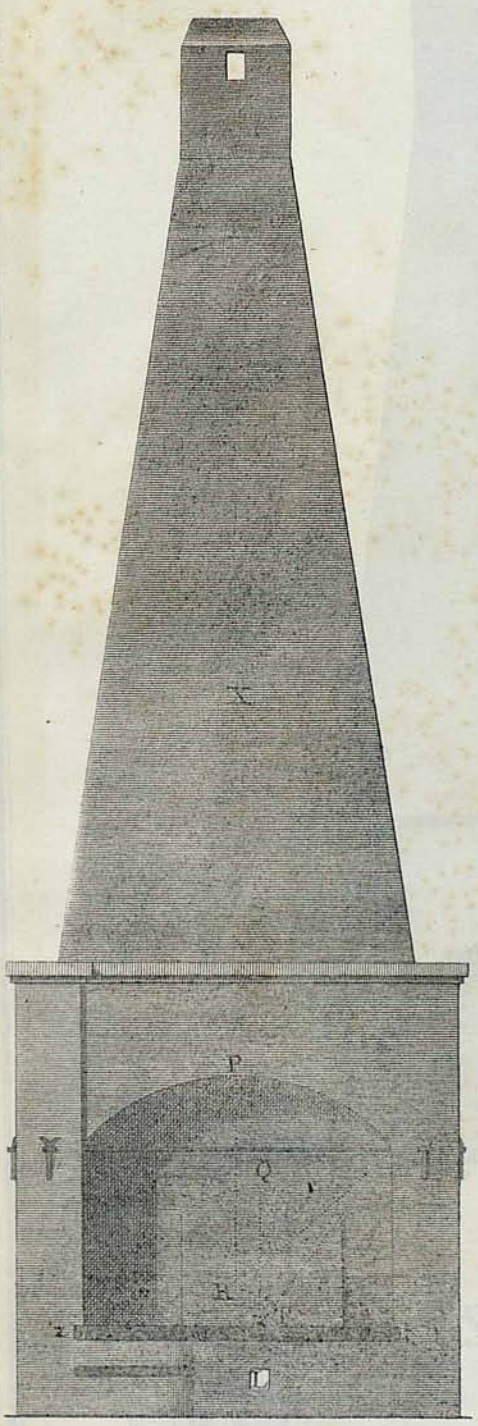


Fig. 4.

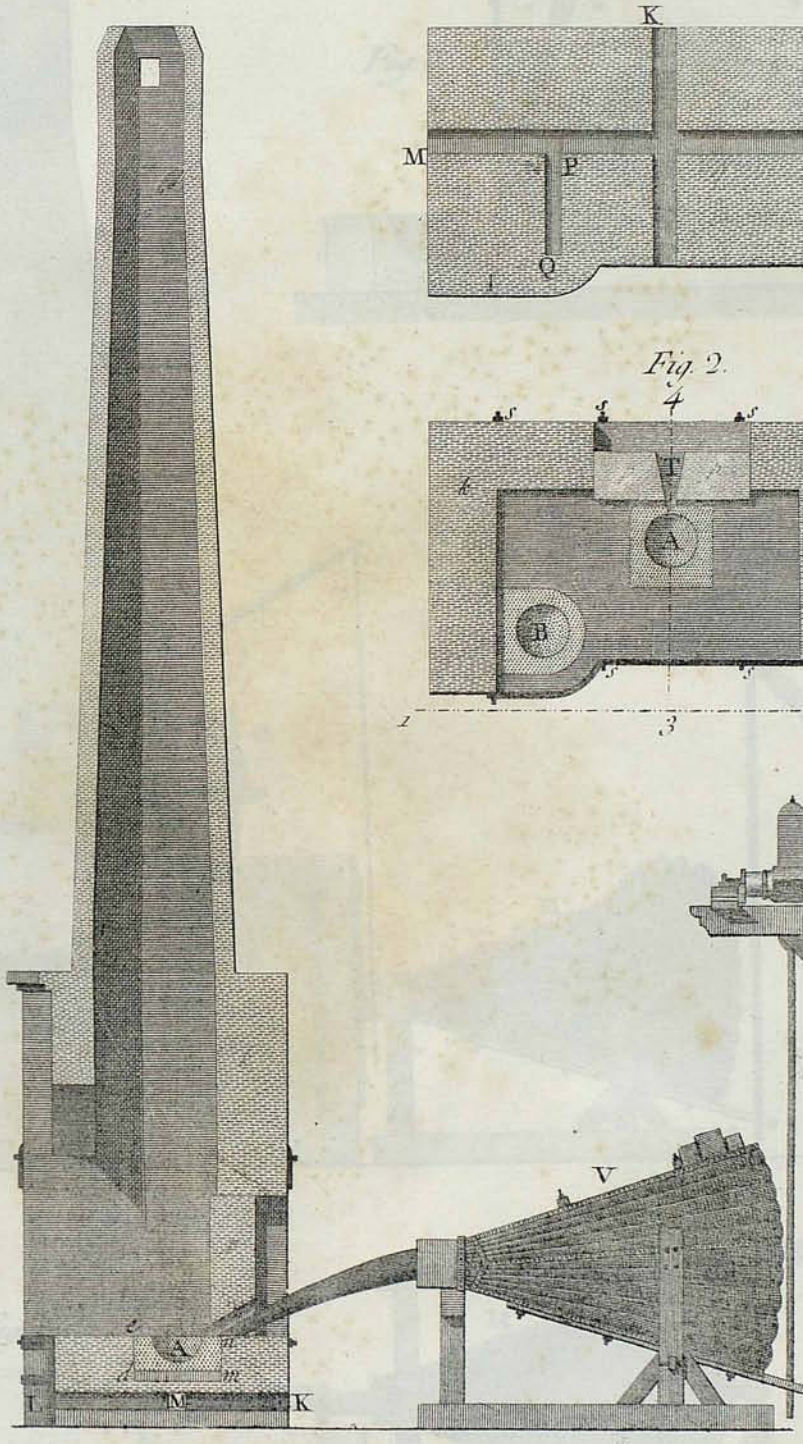


Fig. 1.

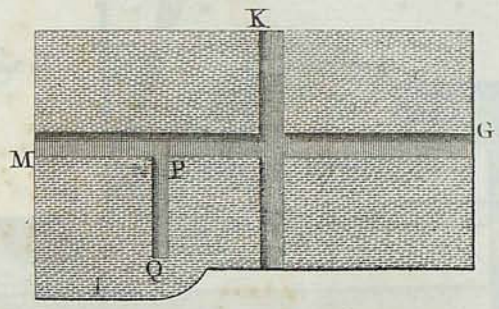
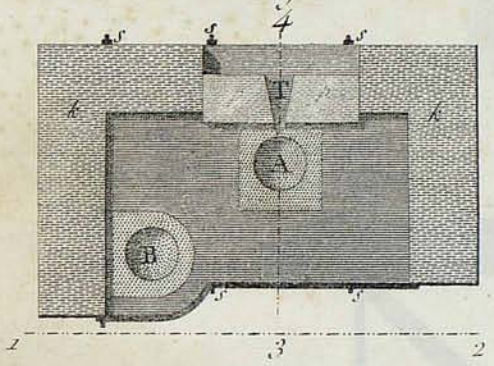
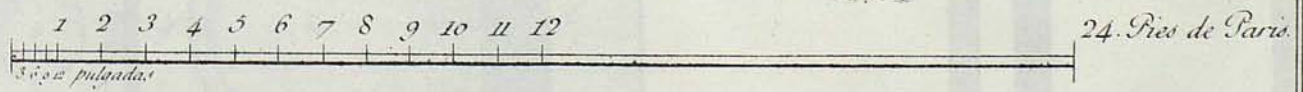


Fig. 2.





Renovada esta lamina p.r haberse perdido la primitiva se la han puesto las letras que expresa el cuaderno de la explicacion.

Fig. 3.

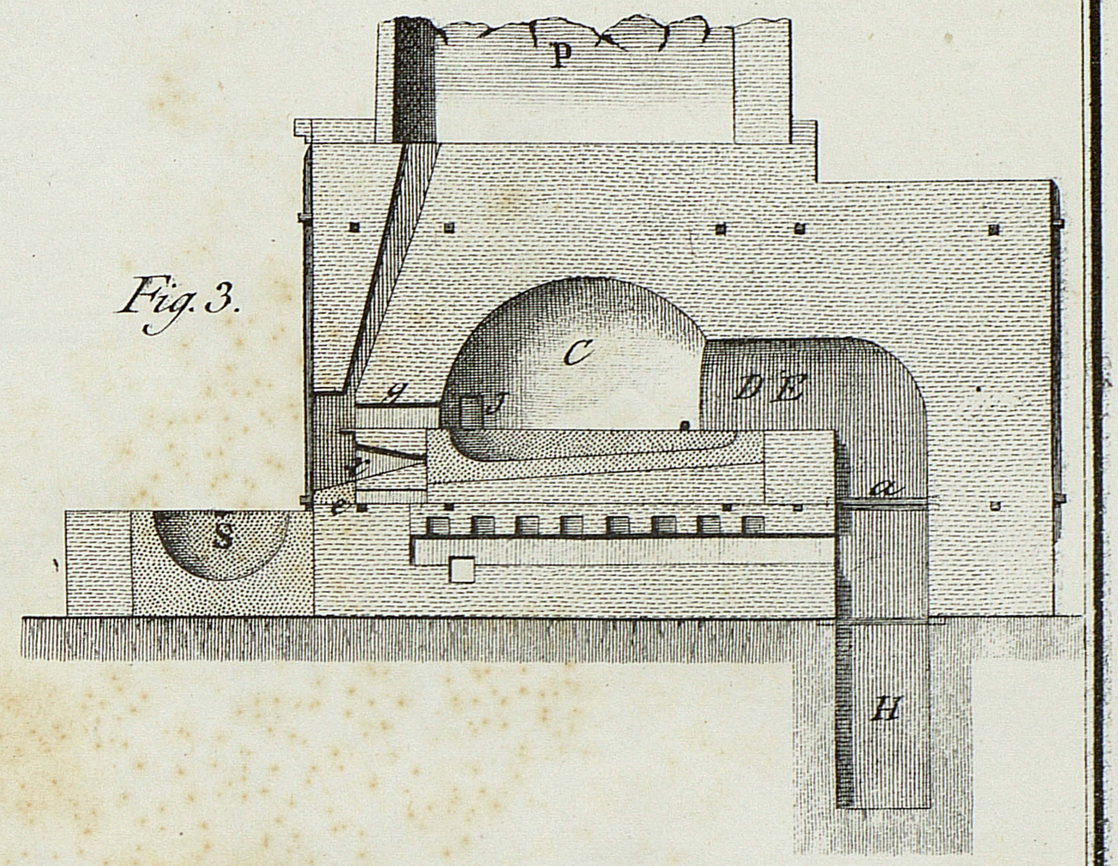


Fig. 2.

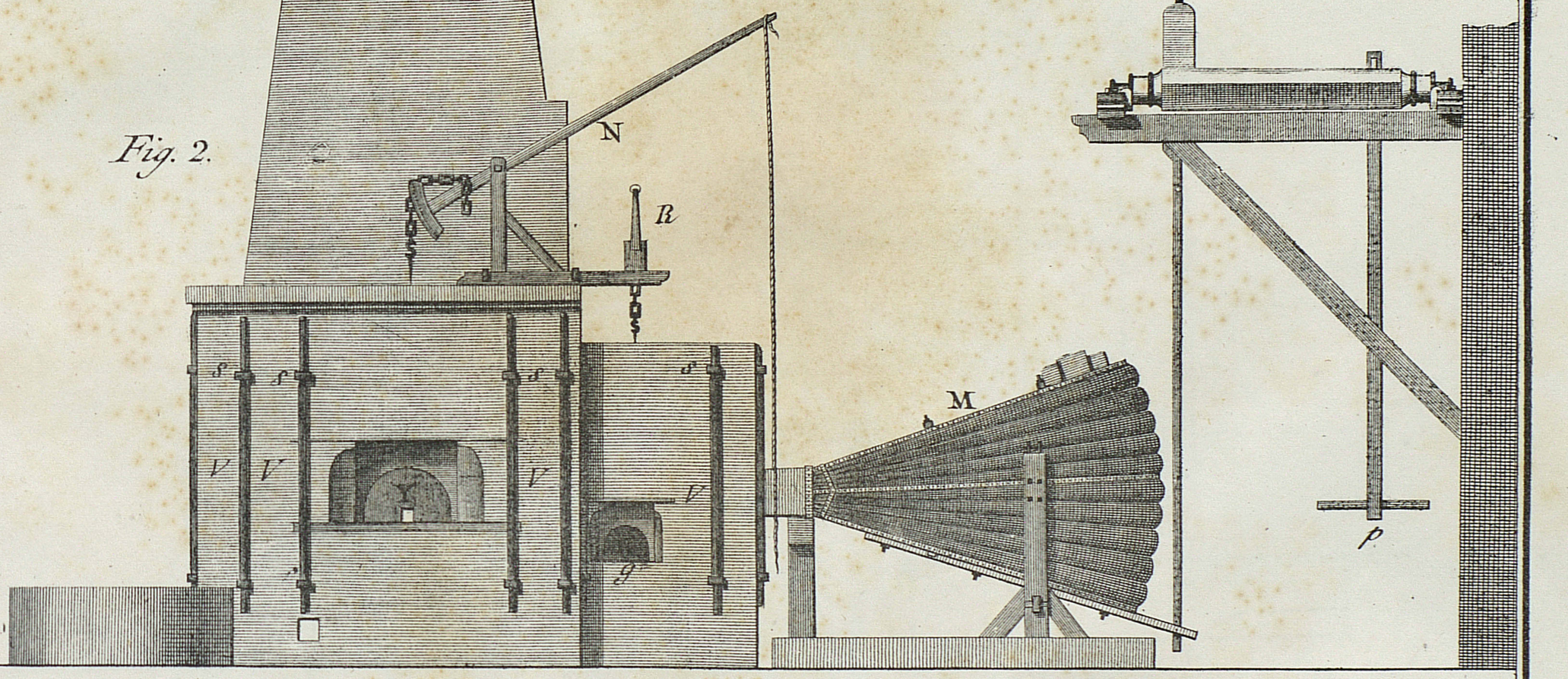
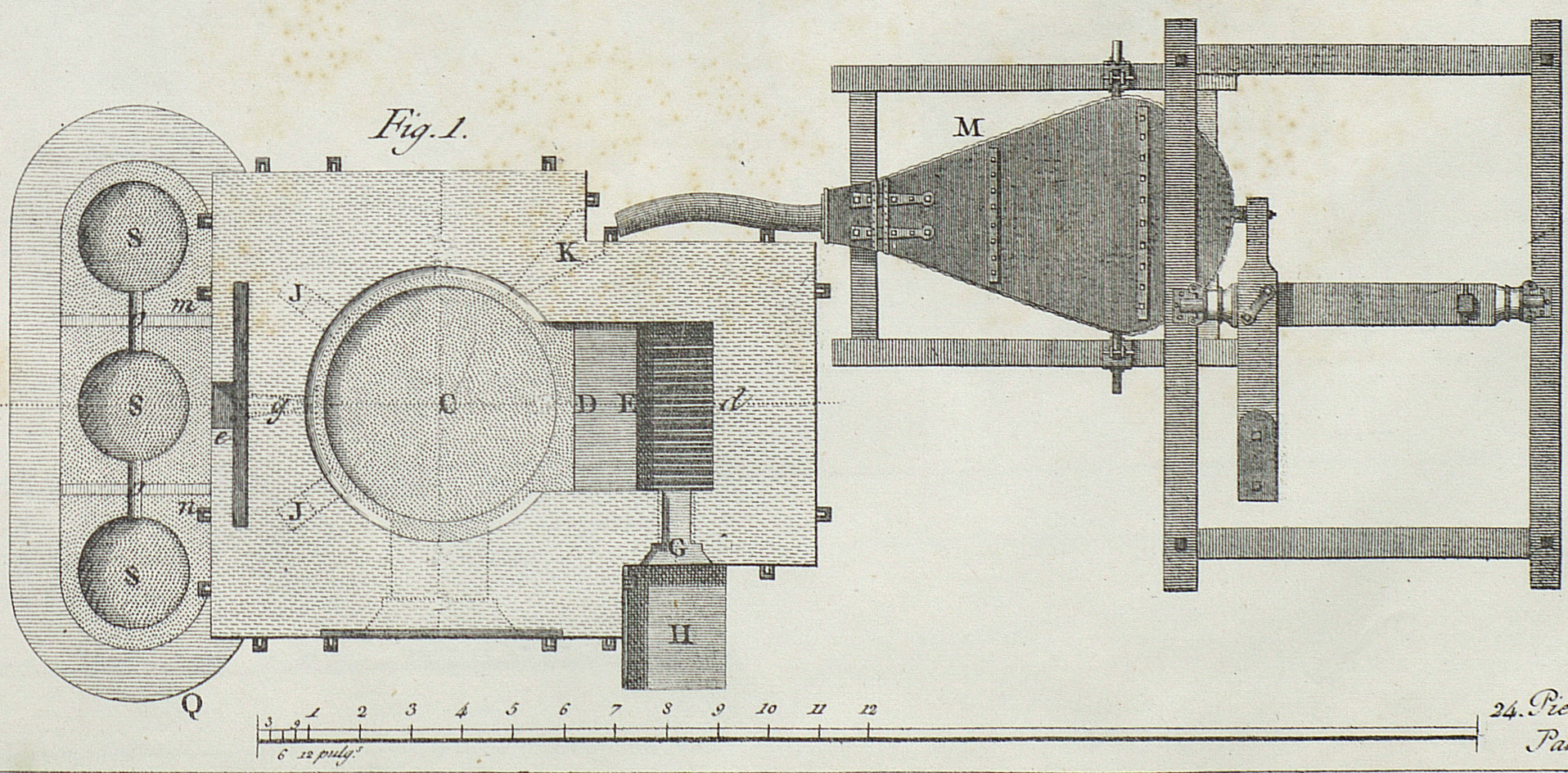


Fig. 1.



T. Ballester.

Fig.ª 2.ª

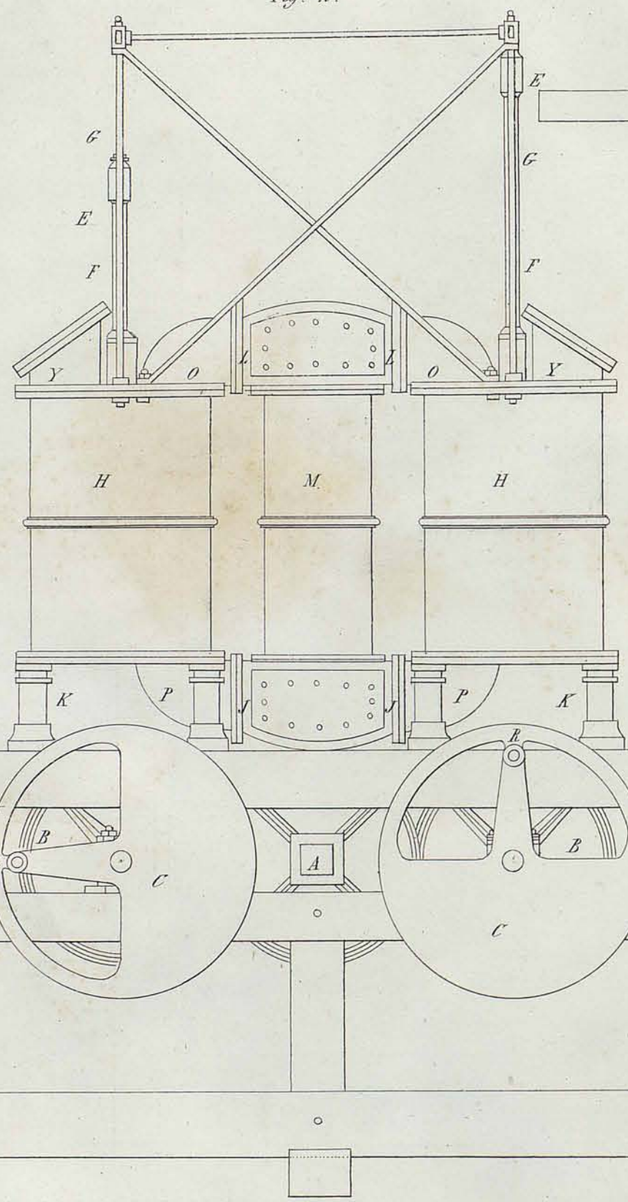
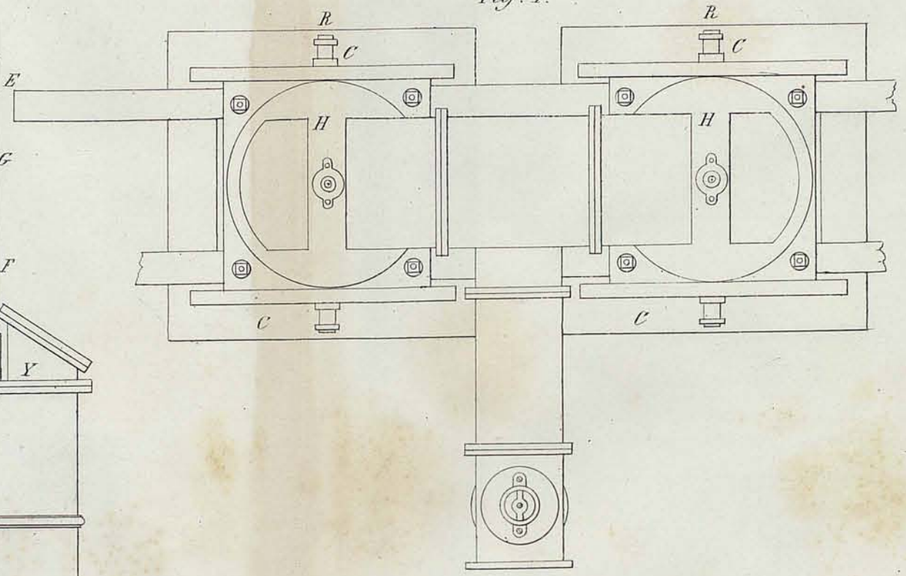


Fig.ª 1.ª



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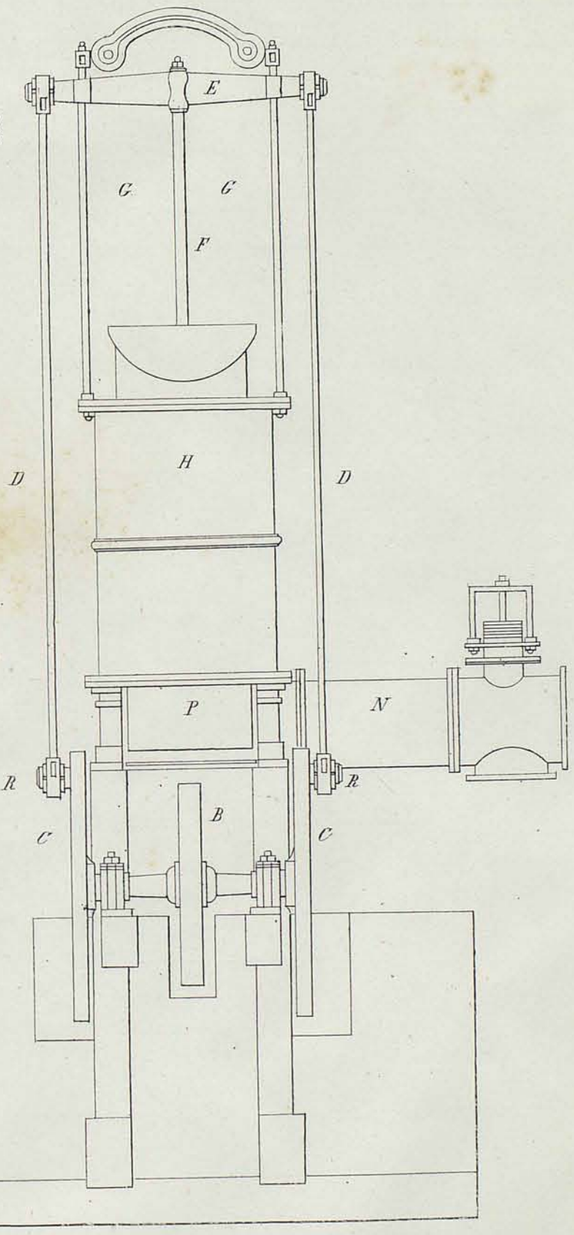


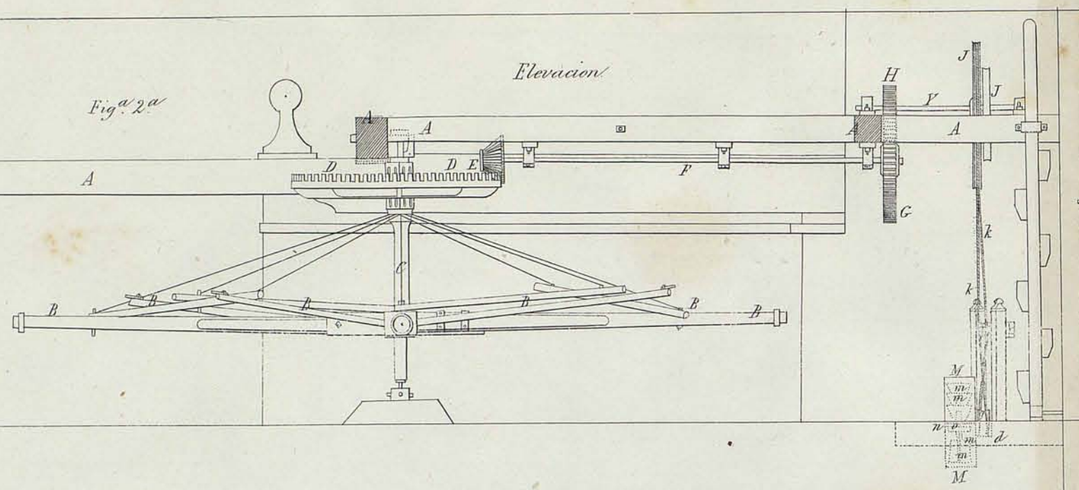
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 pies de Castilla

T. F. de Aramburu, gra.

Lit. de M.ª

Fig.a 2.a

Elevacion



Perfil cortado por la linea Z Z de la fig.a 1.a

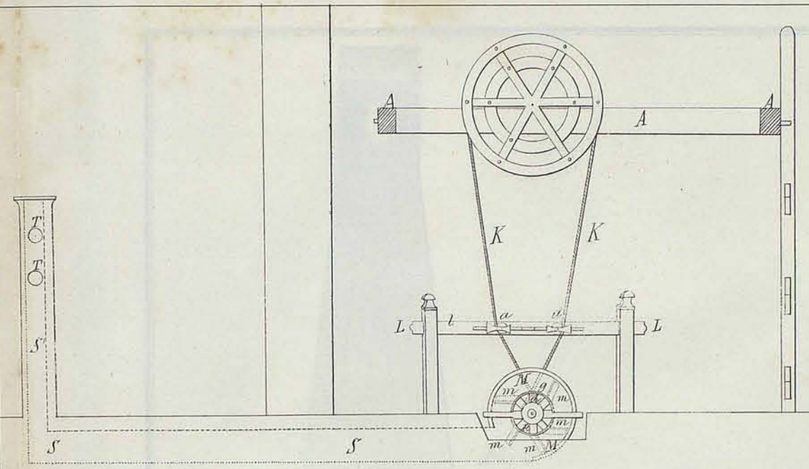
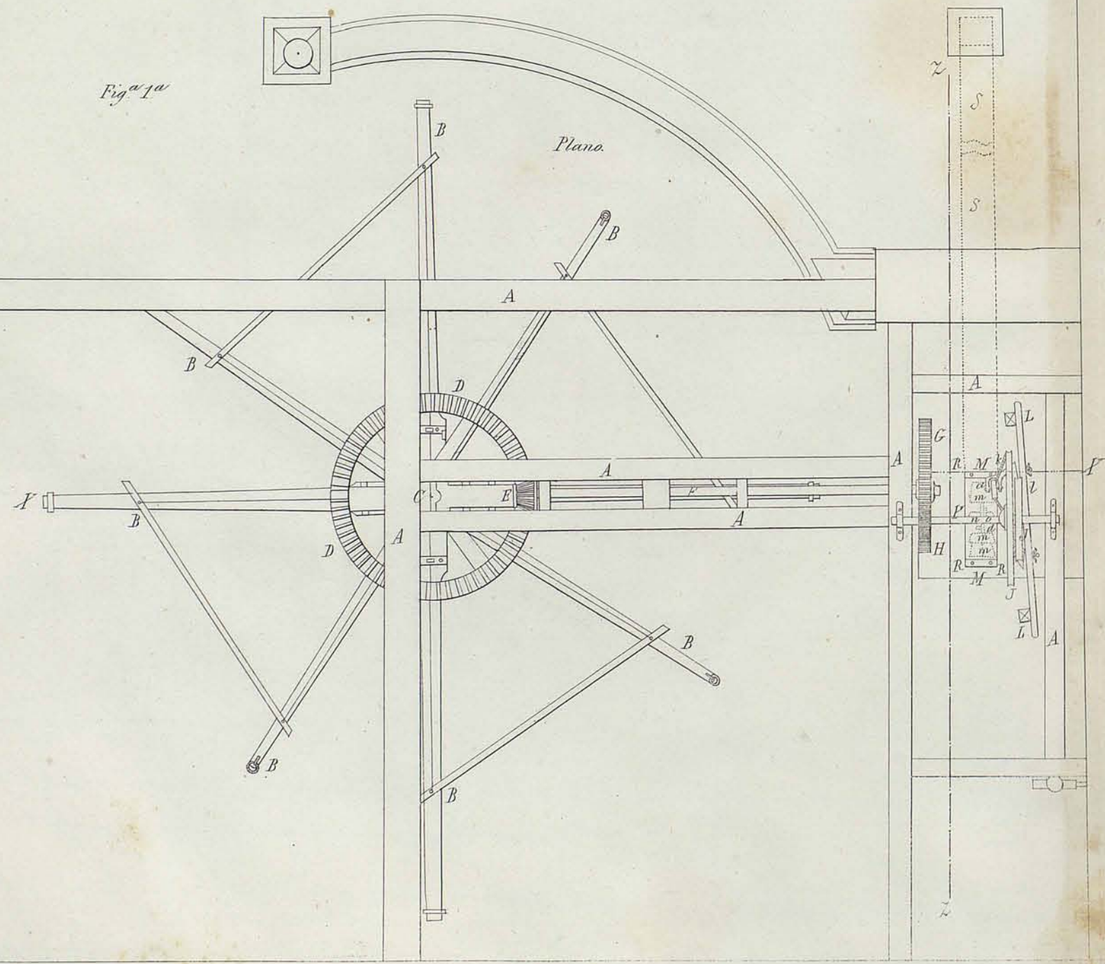


Fig.a 1.a

Plano.



Maquina de viento para los hornos cubiletes en que se funde el hierro; sacada del natural que existe en la fundicion de bronces de Sevilla.

Esplicacion

A: armazon de madera ó vigas necesarias para el sostenimiento de la maquina.
B: idem de varas, en el cual se colocan las caballerias que dan movimiento á esta.
C: arbol que sirve de eje á la rueda dentada D.
D: rueda dentada de 112 dientes.
E: linterna de 15 dientes que es movida por la rueda D.
F: eje comun á la linterna E y á la rueda G.
G: rueda de 108 dientes á la cual comunica el movimiento la linterna E.
H: segunda linterna de 15 dientes movida por la rueda G.
I: eje comun á la linterna H y á las ruedas J.
J: ruedas holgadas que siguen el mismo movimiento que la linterna H.
K: cuerda sin fin que enegando en la rueda holgada J pasan sus dos ramales por las dos ruedecitas a y cruzandose en el punto q, vuelve á encajar en otra rueda igualmente holgada que es la marcada con la letra d.
L: armazon de madera en que se colocan las ruedecitas a, que pueden correrse á lo largo del barrote l.
d: rueda holgada que es movida por la cuerda sin fin, y cuyo eje es el marcado c con la letra n.
m: seis paletas unidas en el punto ó al eje n, y que recibiendo el movimiento por medio de la rueda d recojen todo el aire que se introduce por las aberturas R y lo impelen en direccion del conducto S.
M: caja cilindrica de hierro medio enterrada debajo de tierra y que encierra el sistema de paletas m.
R: aberturas circulares abiertas en ambas caras de la caja M, que dan entrada al aire.
S: conducto subterraneo cuadrado por el cual entra el aire que empujan las paletas m.
S': parte del mismo conducto en direccion vertical.
T: aberturas circulares en las cuales se colocan dos tubos que terminan dentro del horno de fundicion.

M. Perez de Castro gra.

Lit de Asi

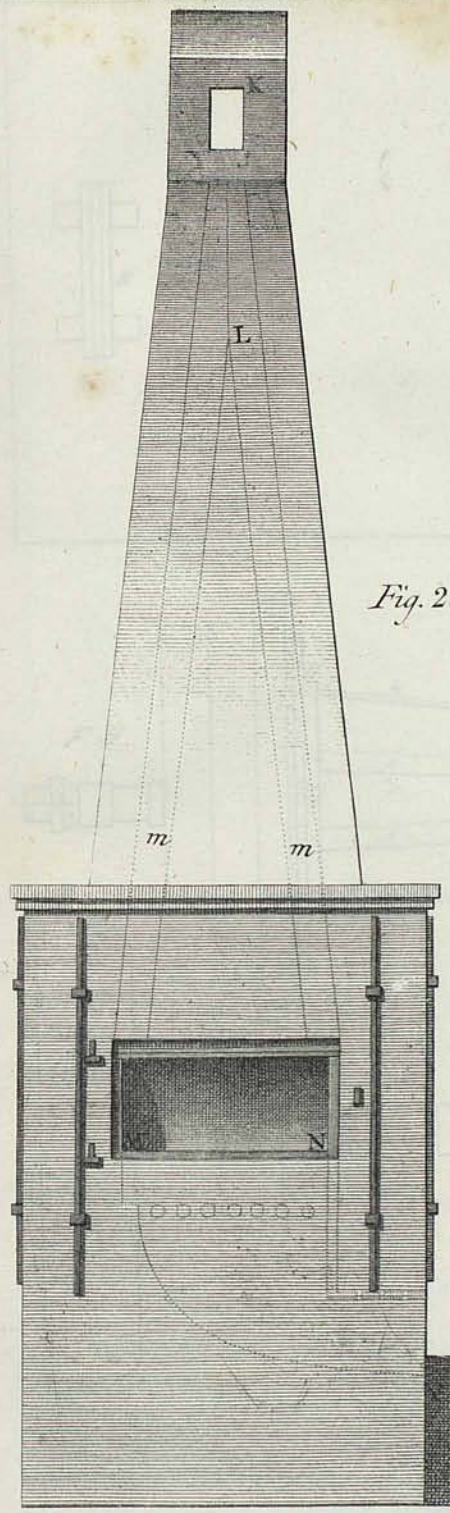


Fig. 2.

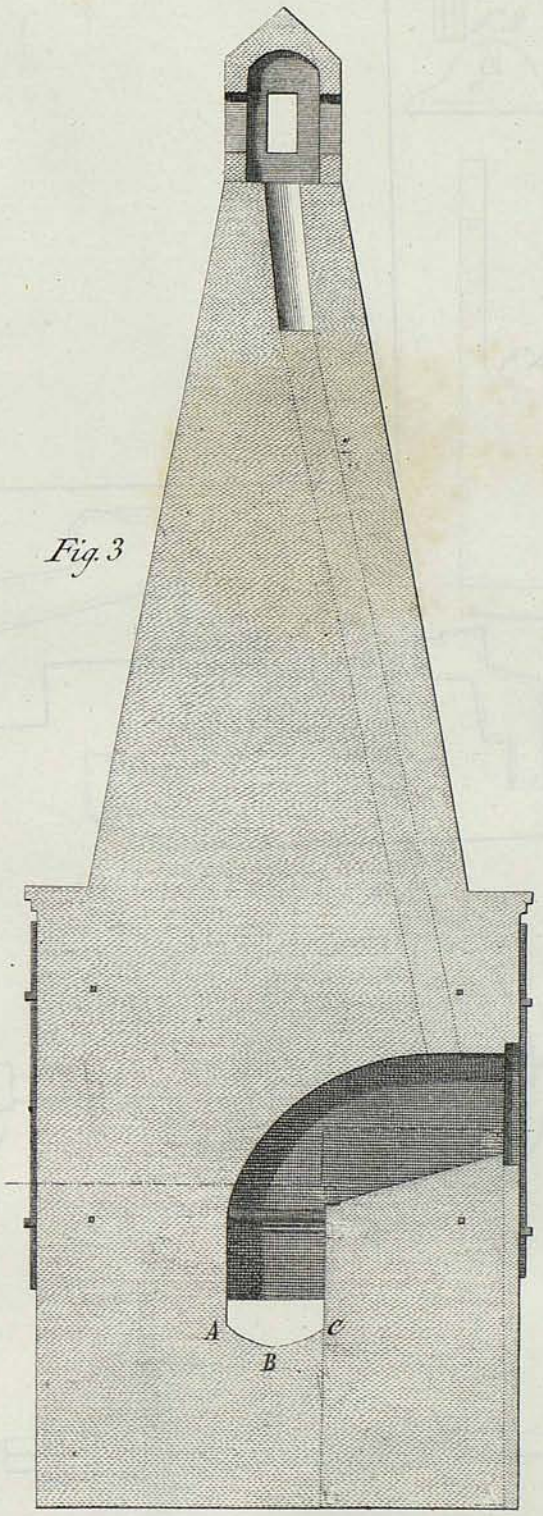


Fig. 3

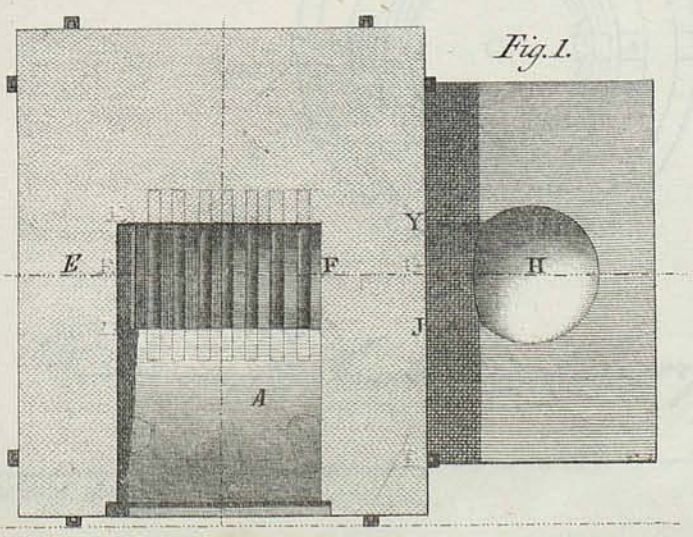


Fig. 1.

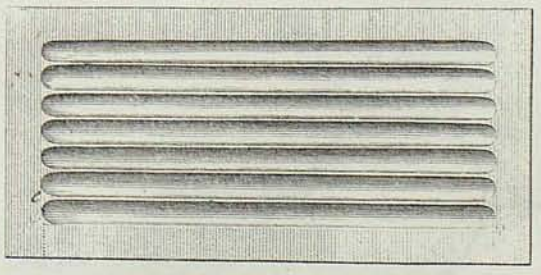
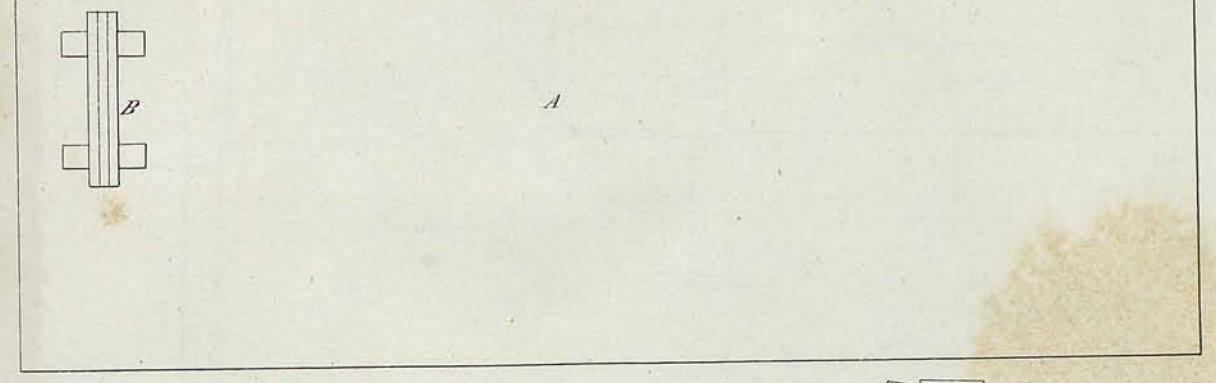
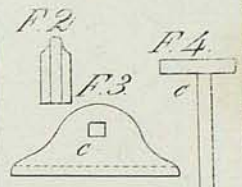


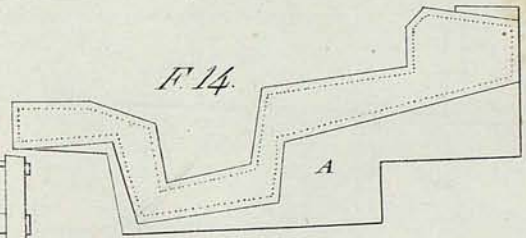
Fig. 4.

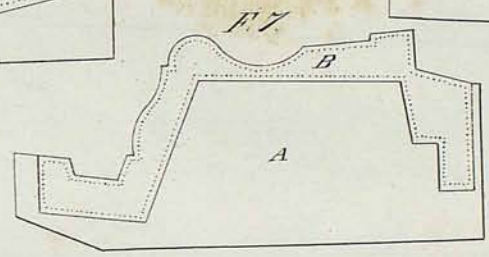
J. Moreno.

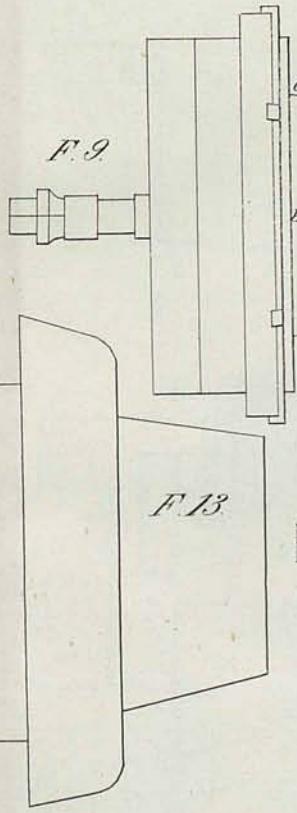
Fig.a 1.a

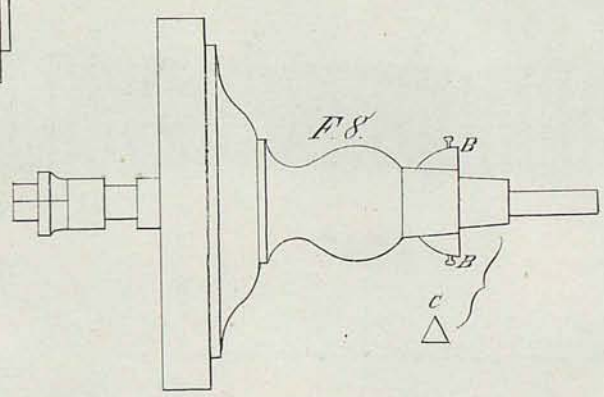


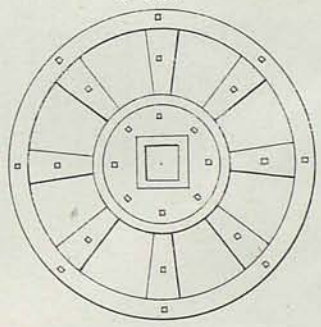


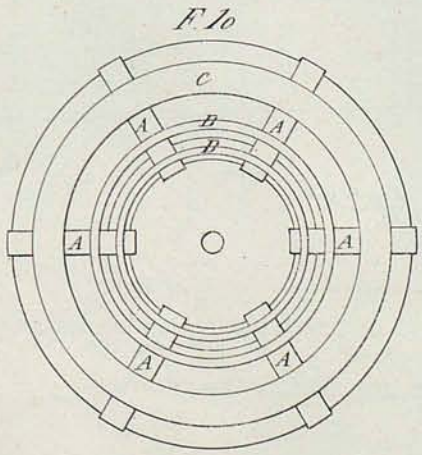


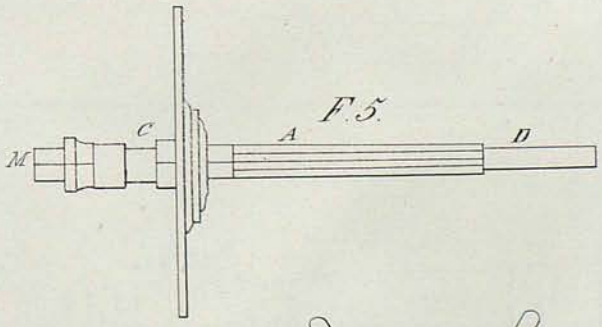


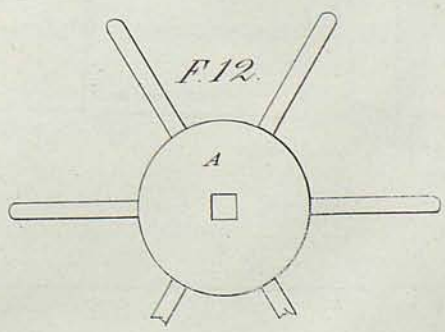


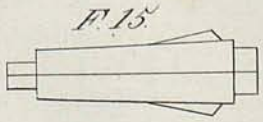












Escala, una pulgada por pie de Paris.

J.S de A., gra.

Lit. de Artill.a

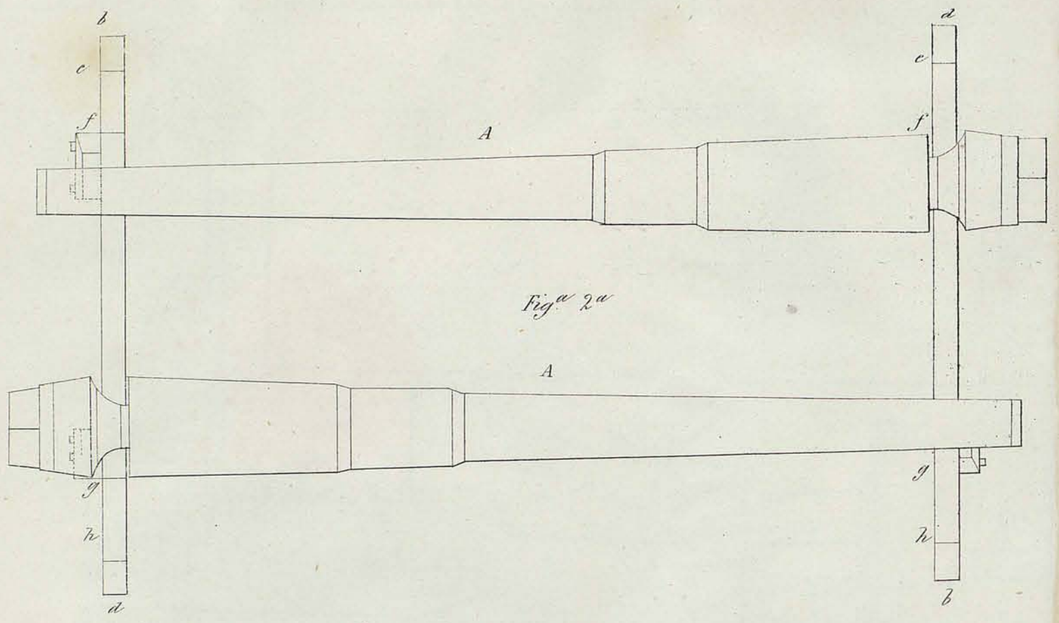


Fig.a 2.a

Fig.a 3.a

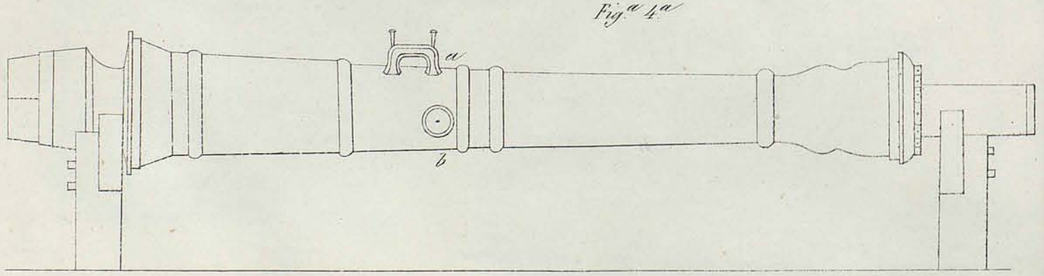


Fig.a 4.a

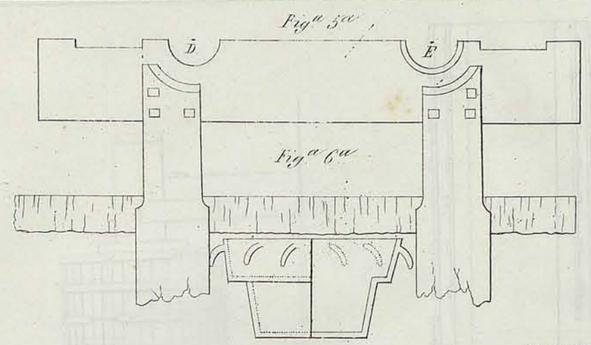


Fig.a 5.a

Fig.a 6.a

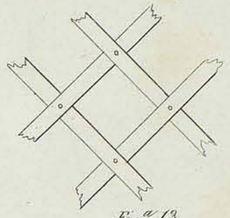


Fig.a 13

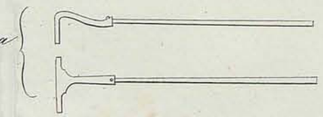
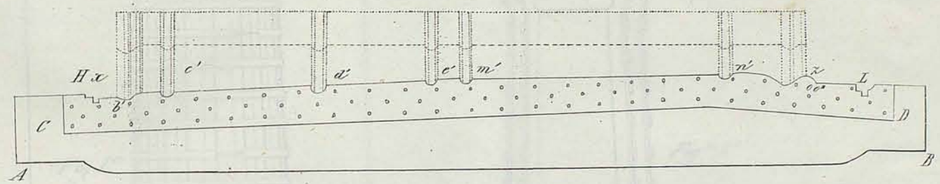


Fig.a 8.a



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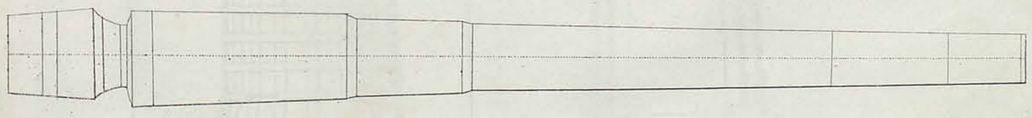
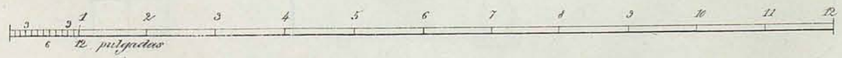


Fig.a 1.a



Pies de Rey

M. Perez de Castro grn.

Ed. de Art.a

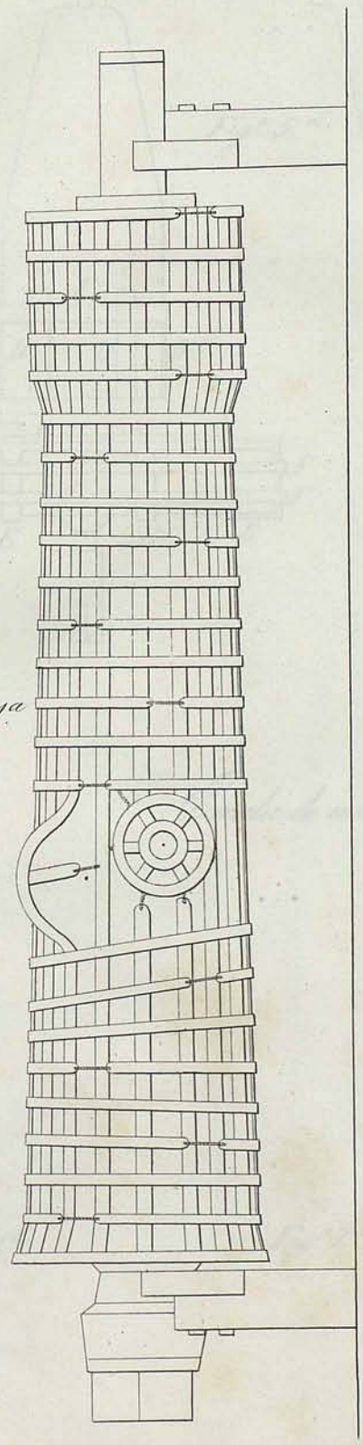
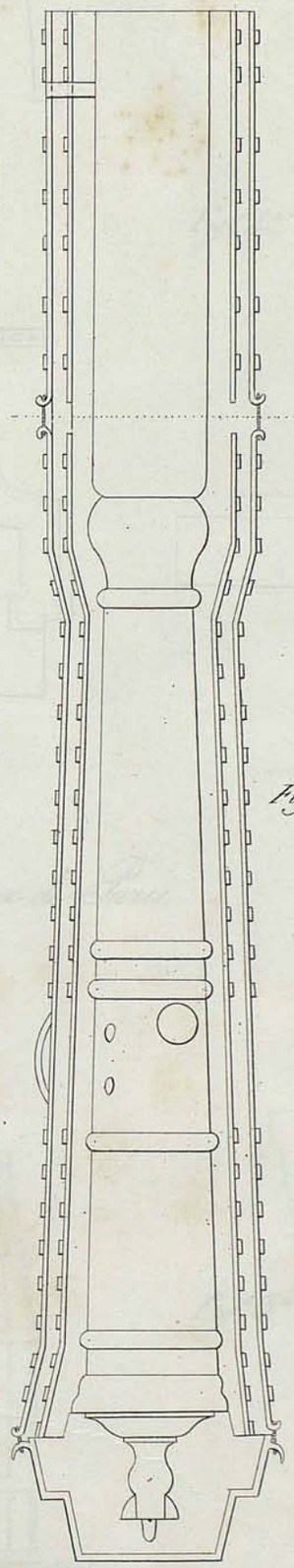


Fig.a 1.a



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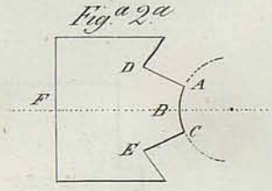
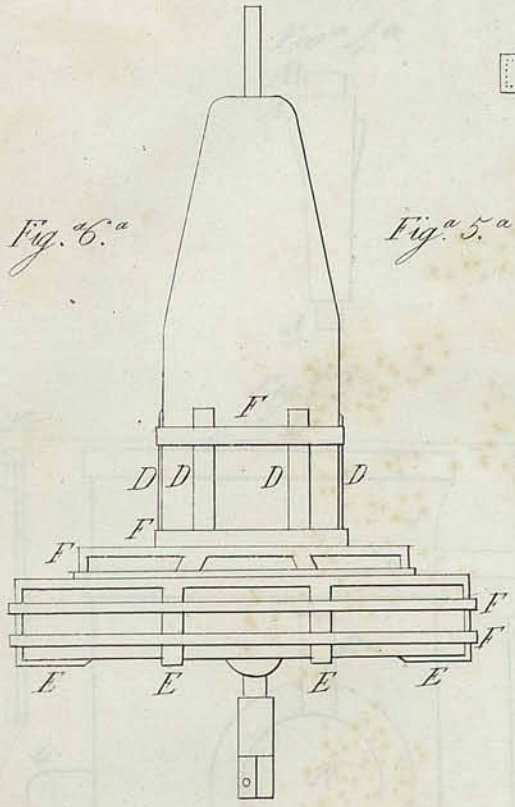


Fig.a 2.a

Fig.a 6.a



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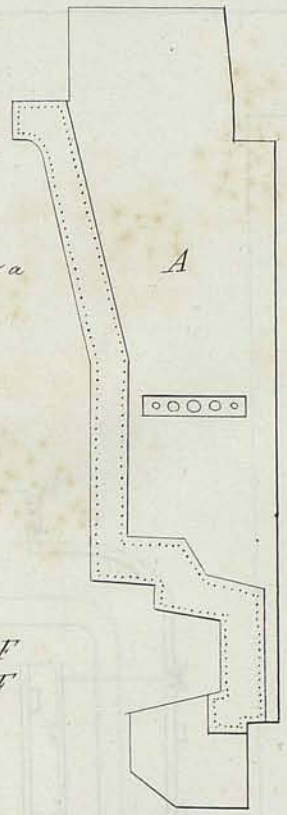

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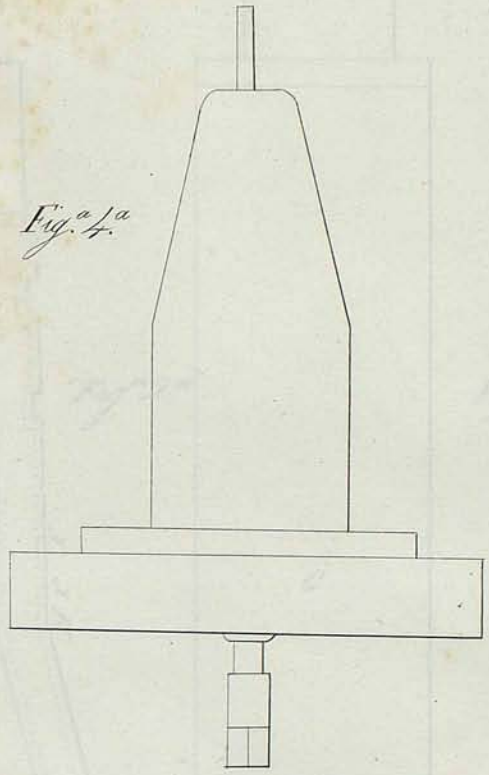
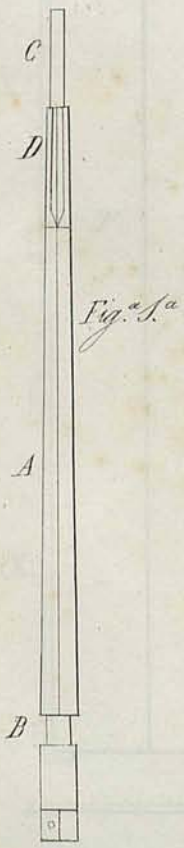


Escala de una pul.a por pie de Paris.

Fig.a 1.a



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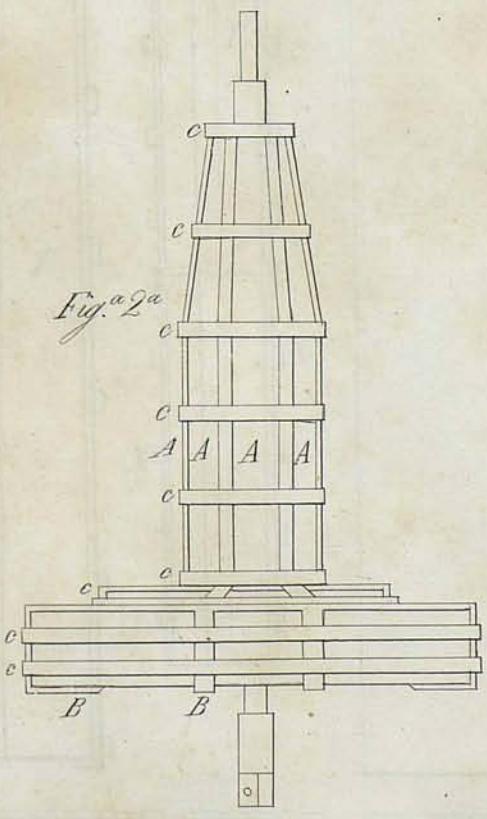

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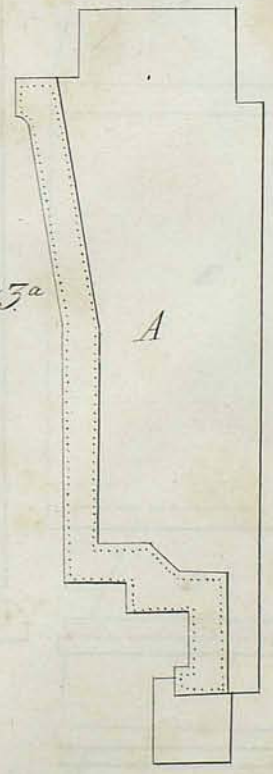


M.P. de C. gra.

Lit.de Artill.a

Lam.ª 25.

Fig.ª 4.ª

Fig.ª 3.ª

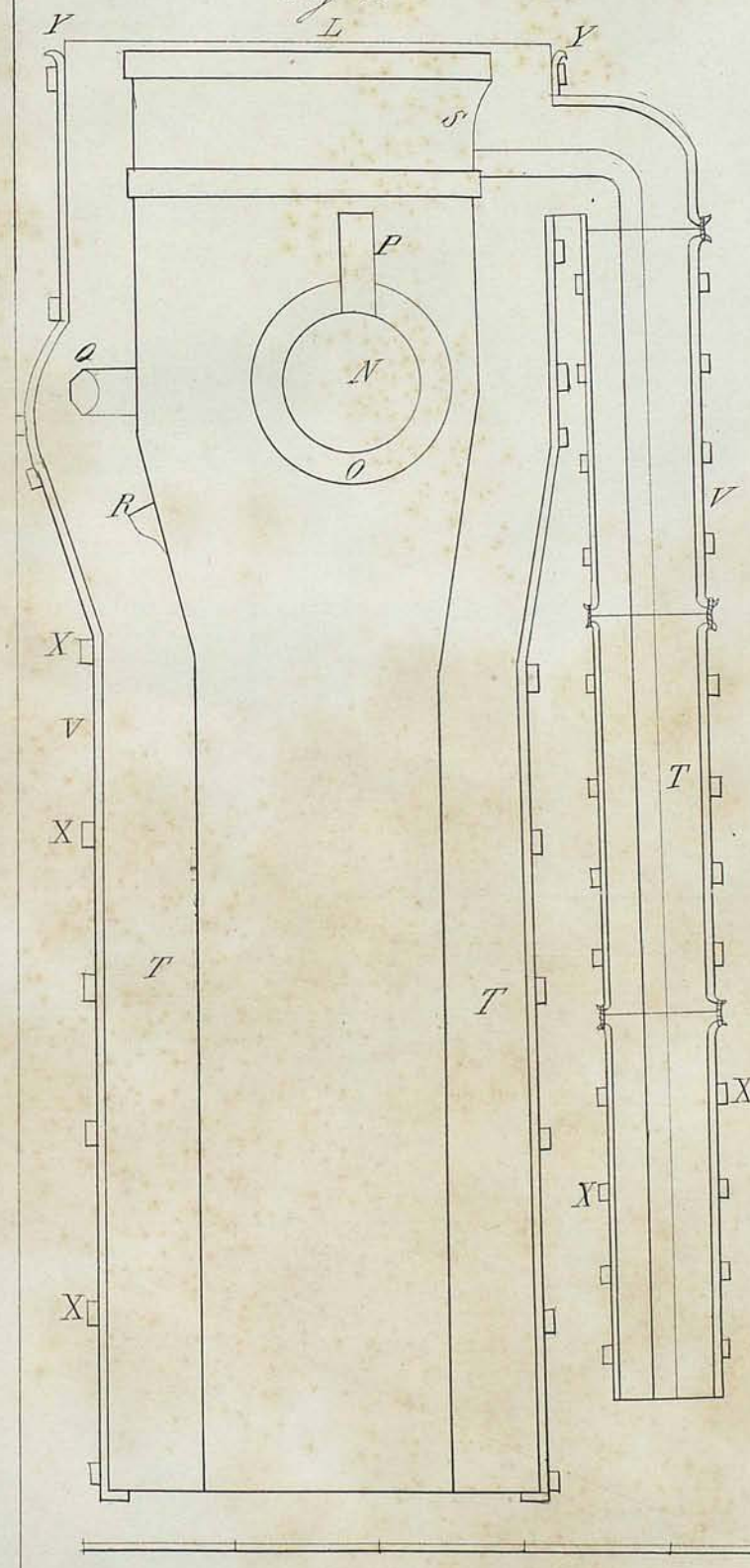
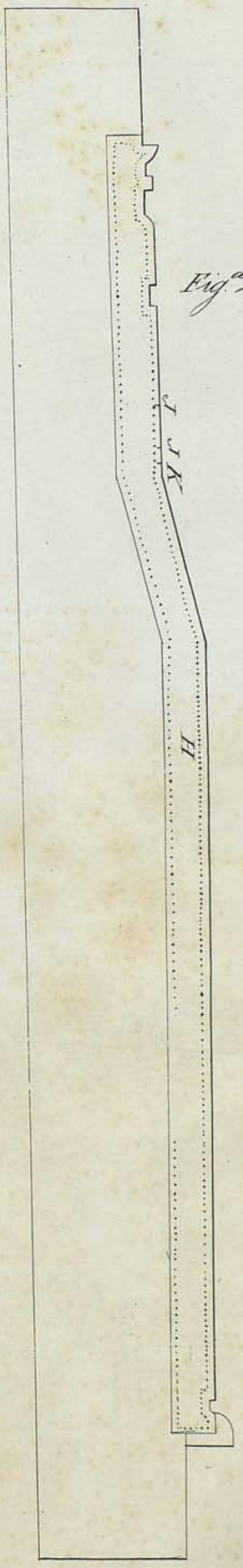


Fig.ª 2.ª



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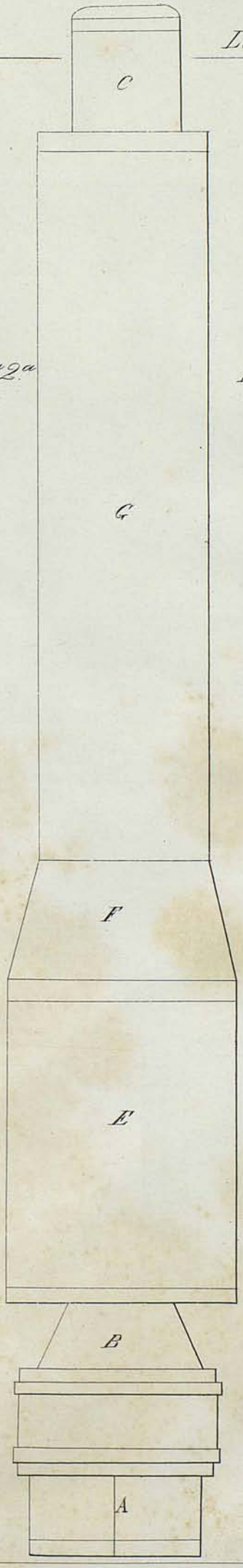
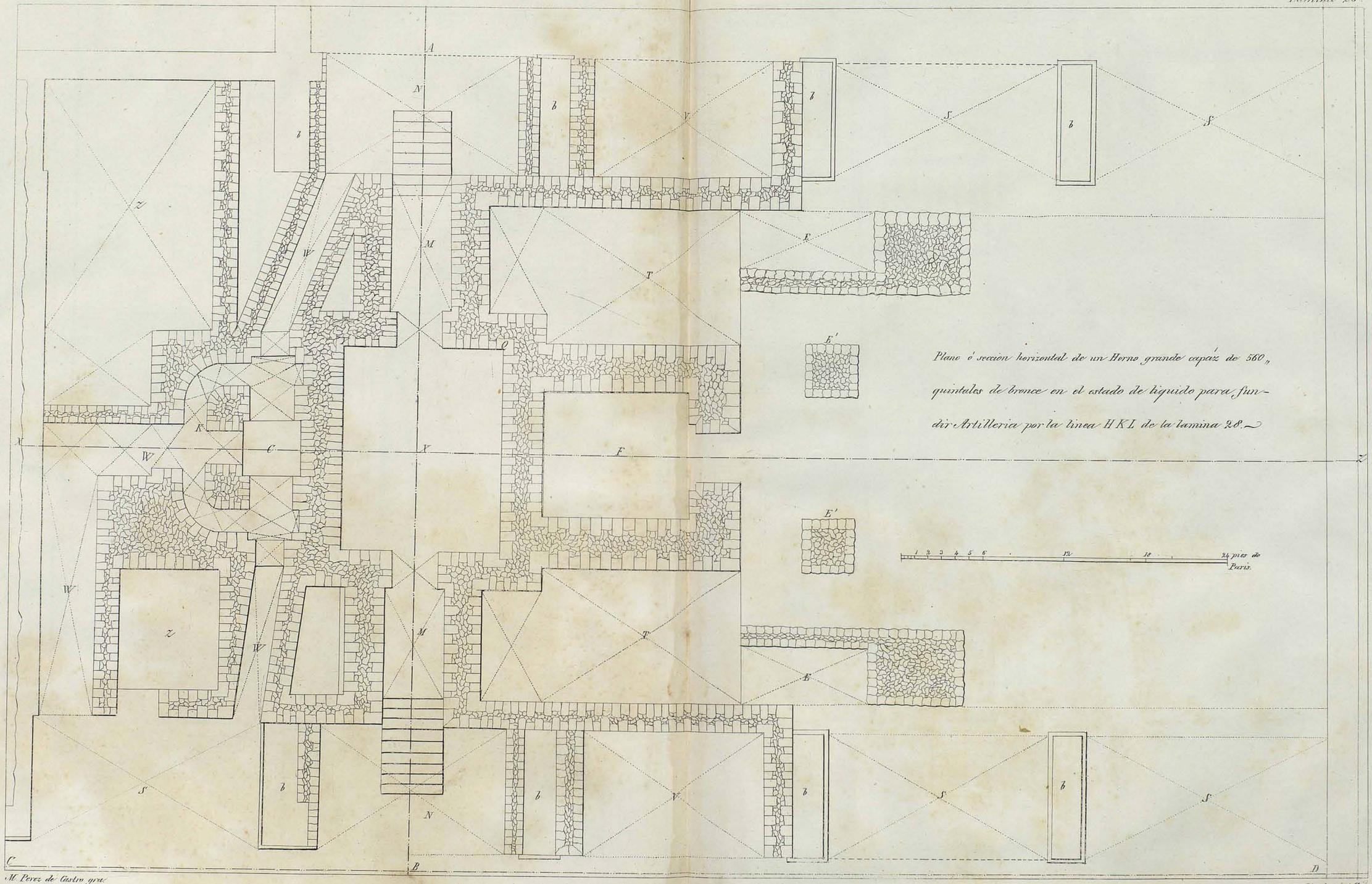


M.P. de C. grav.

Lit de Artill.



Plano ó seccion horizontal de un Horno grande capáz de 560 „ quintales de bronce en el estado de liquido para fundir Artilleria por la linea H K L de la lamina 28.~

M. Perez de Castro grav.

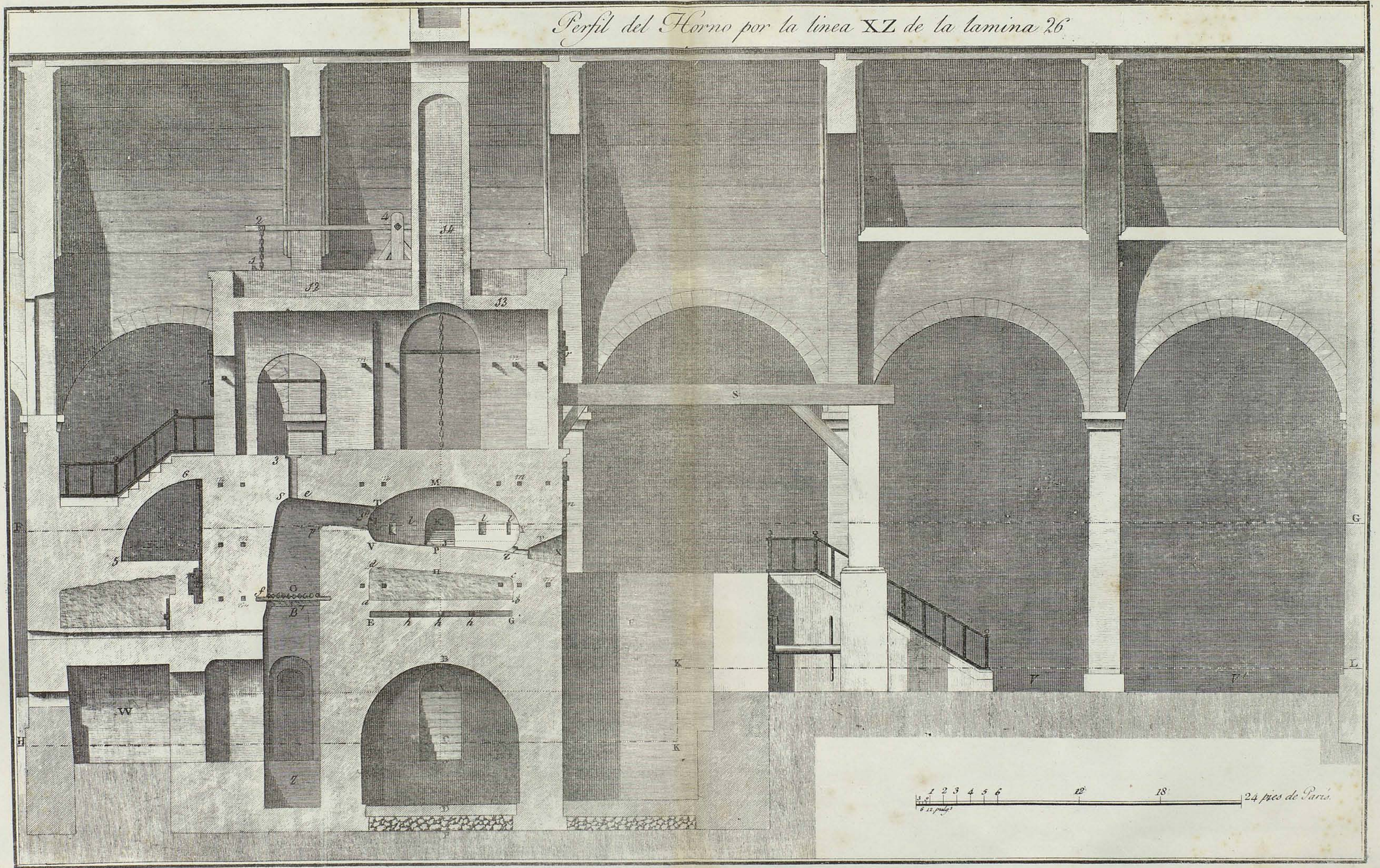
Lit de Ant.o

Plano, ó seccion horizontal del Horno
por la linea FG de la lamina 28

1 2 3 4 5 6 12 18 24 pies de Paris.
12 pulgs.

m H m m m m m m L L H L L S S D D S S

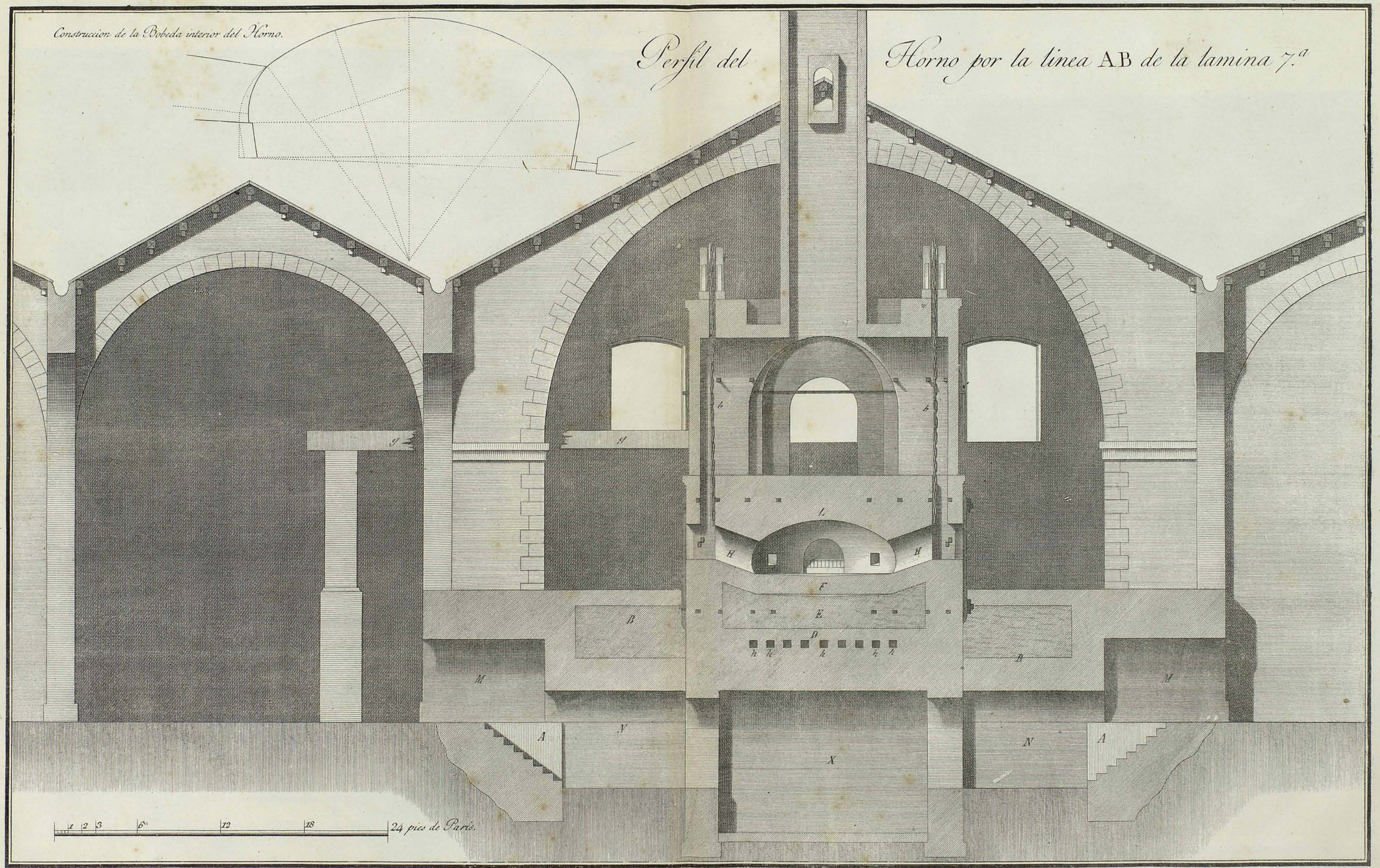
Perfil del Horno por la linea XZ de la lamina 26



T. Ballester.

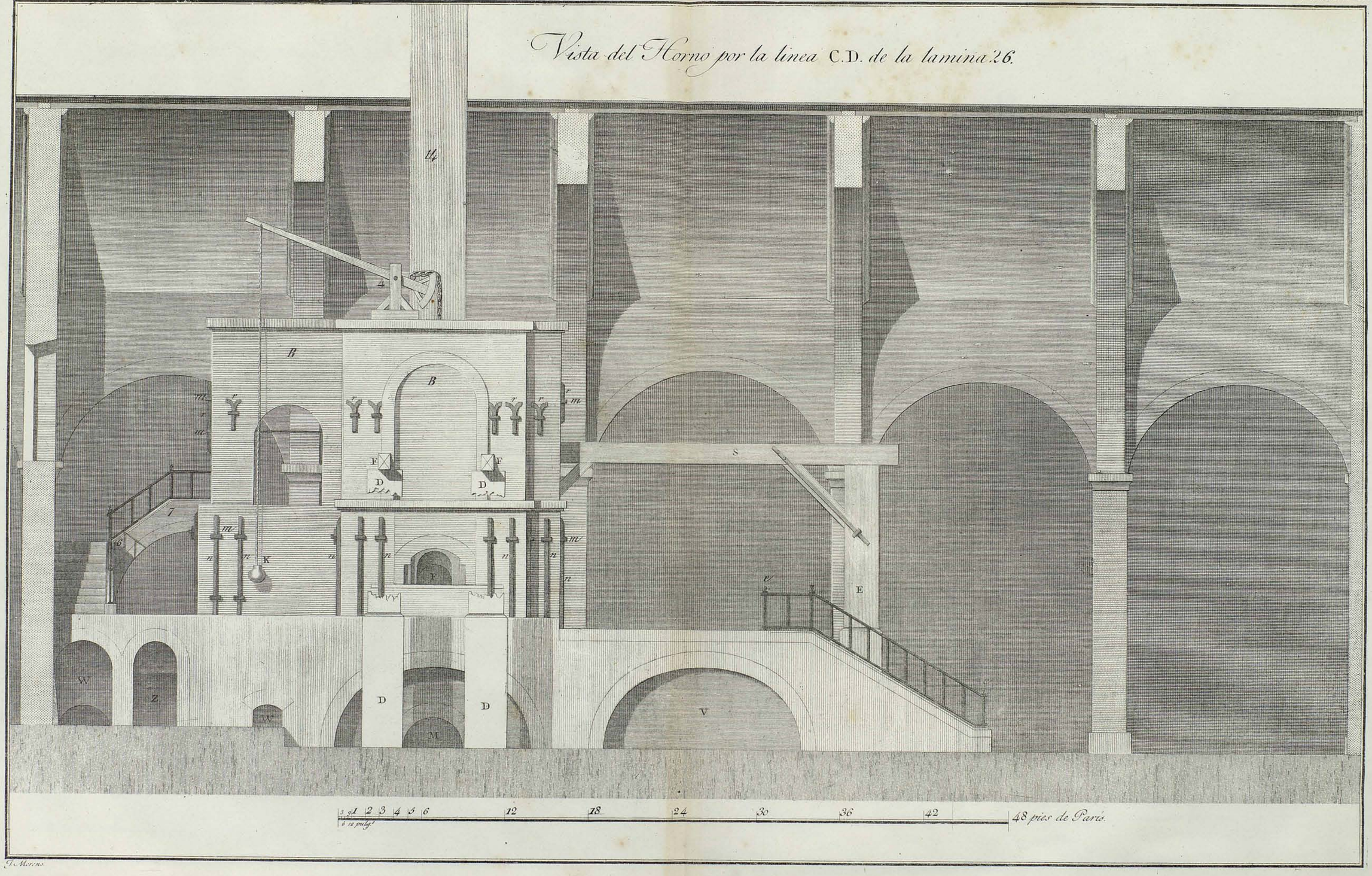
Construccion de la Bobeda interior del Horno.

Perfil del Horno por la linea AB de la lamina 7.ª



F. Selma.

Vista del Horno por la linea C.D. de la lamina 26.



D. Moreno

Fig. 1.

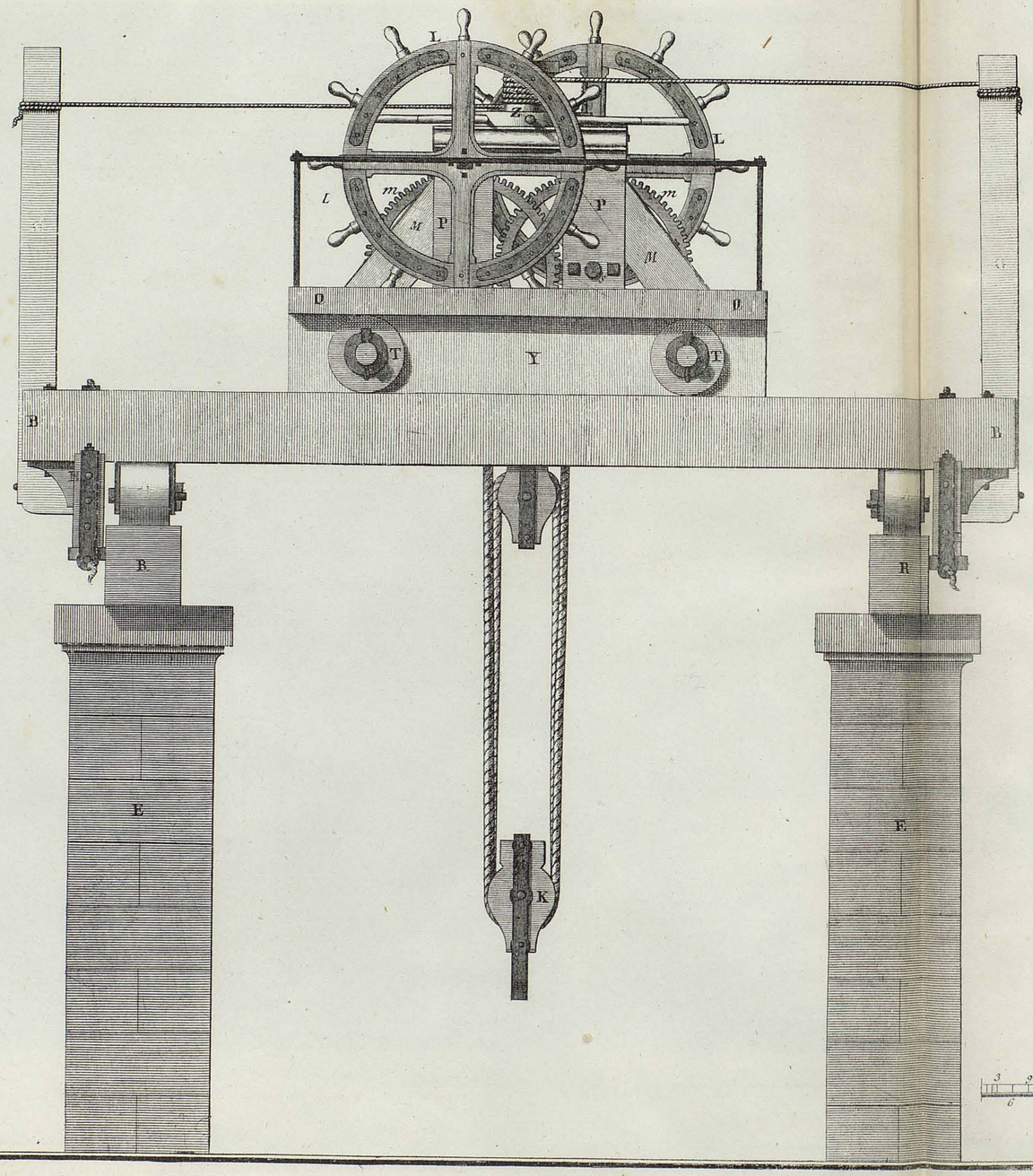
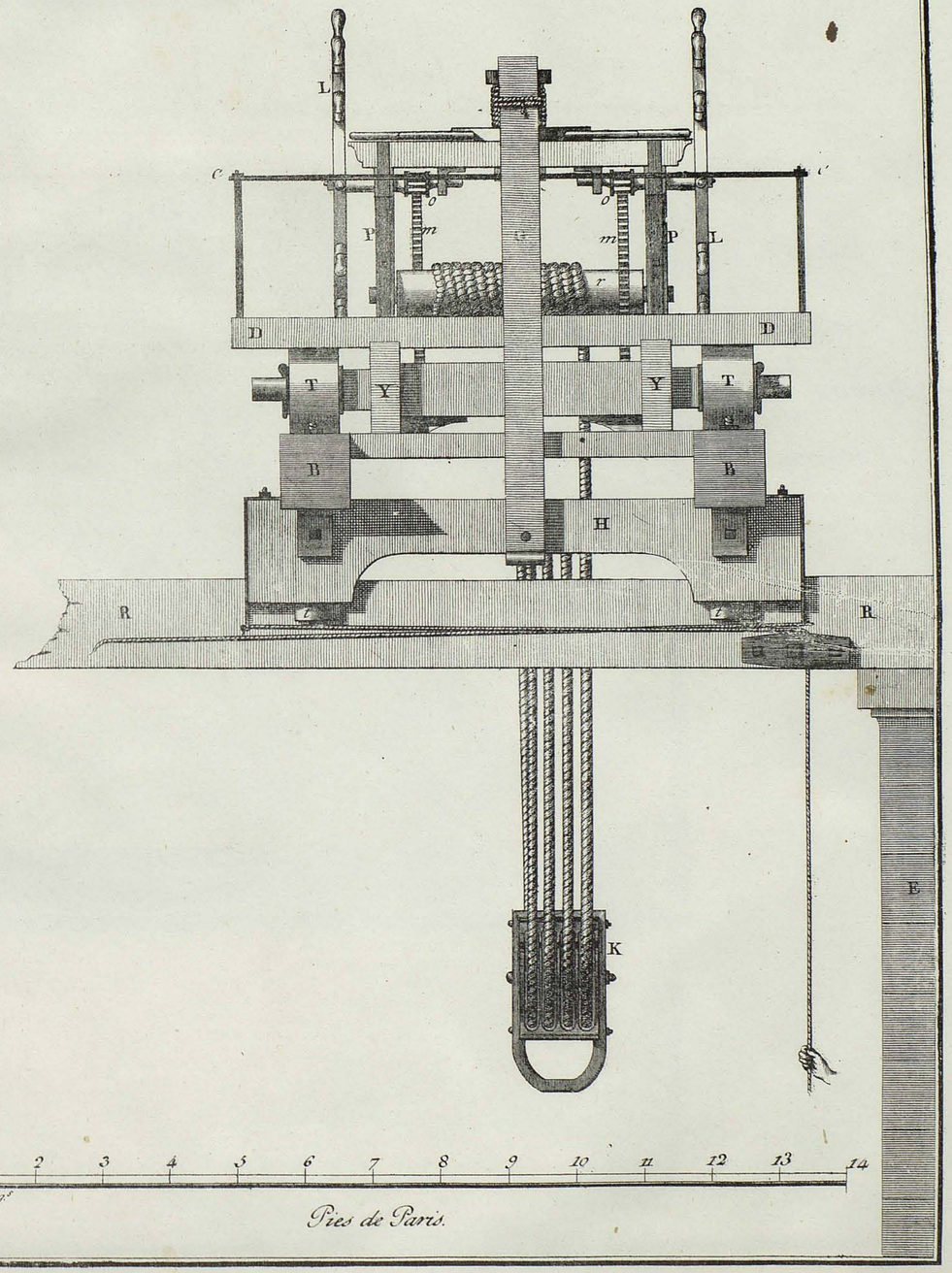
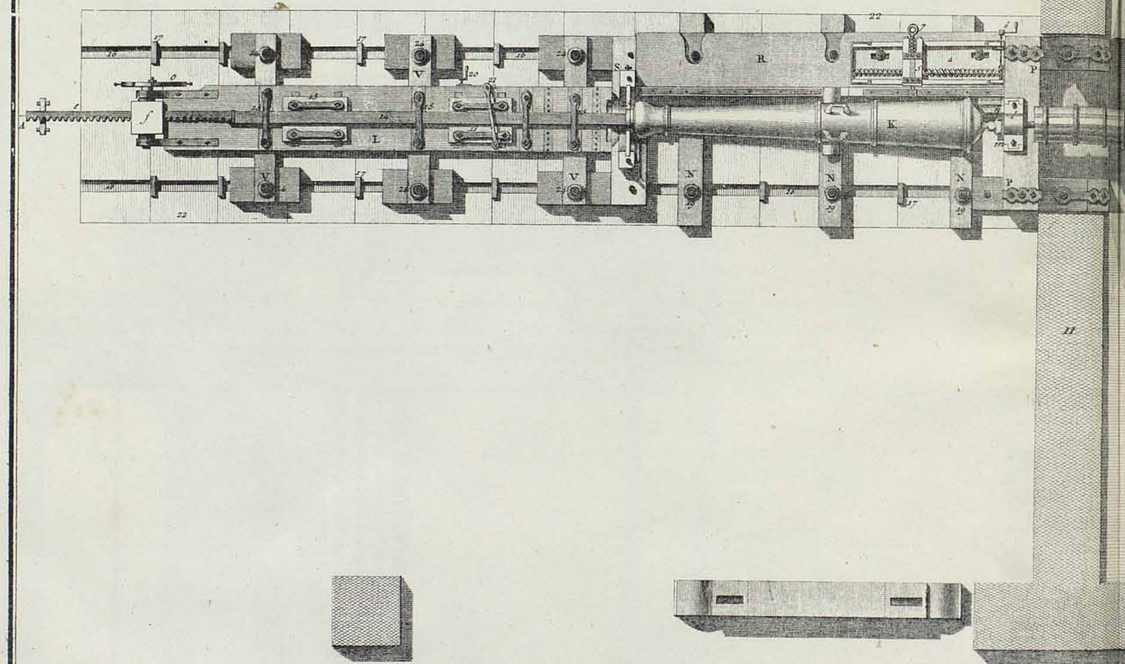


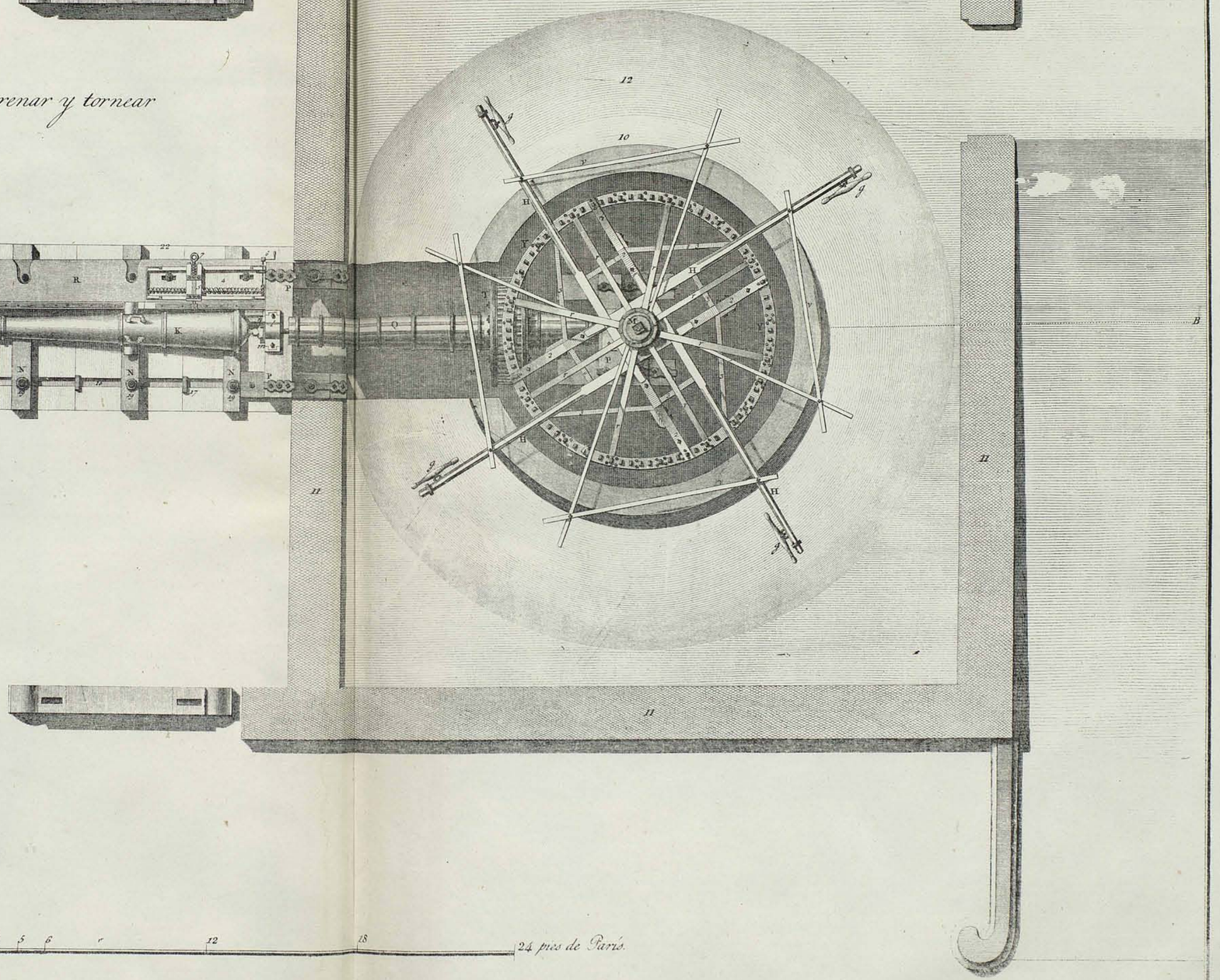
Fig. 2.

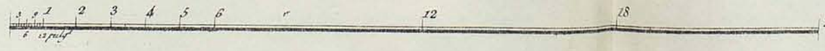


J. Ballester

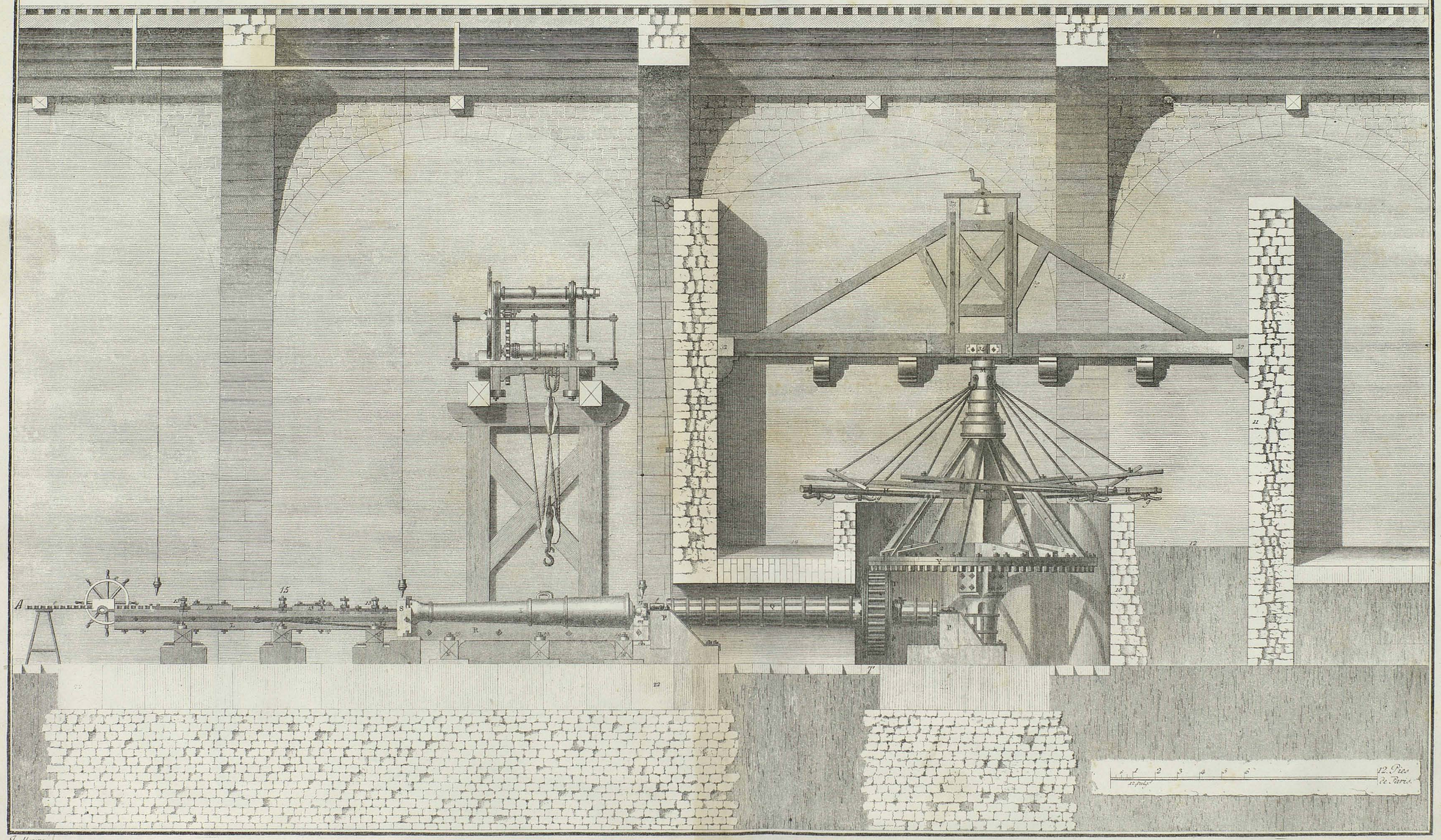
Vista superior de la Maquina de barrenar y tornear la Artilleria.







Perfil de la Maquina de barrenar y tornear los Cañones de Artilleria, cortado p.r la linea AB.



J. Moreno.

Fig.ª 1.ª

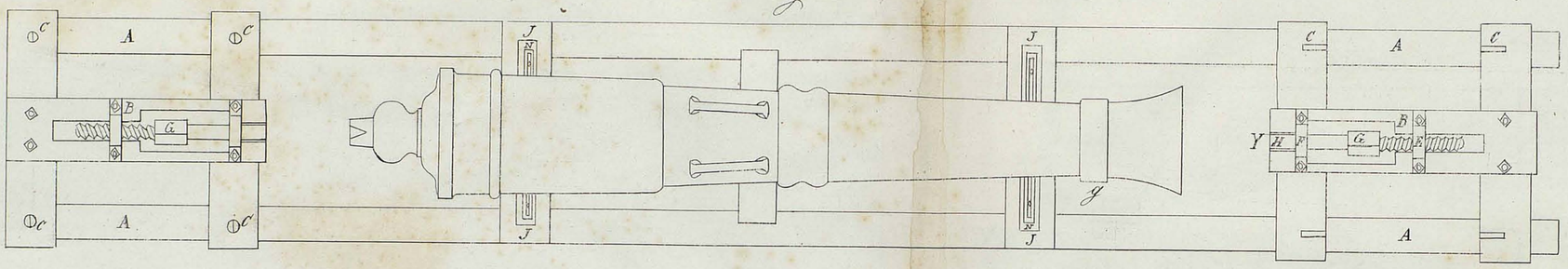
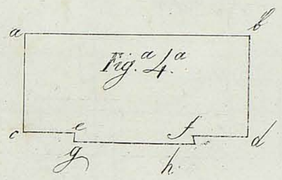


Fig.ª 4.ª



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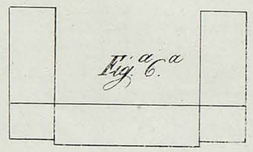

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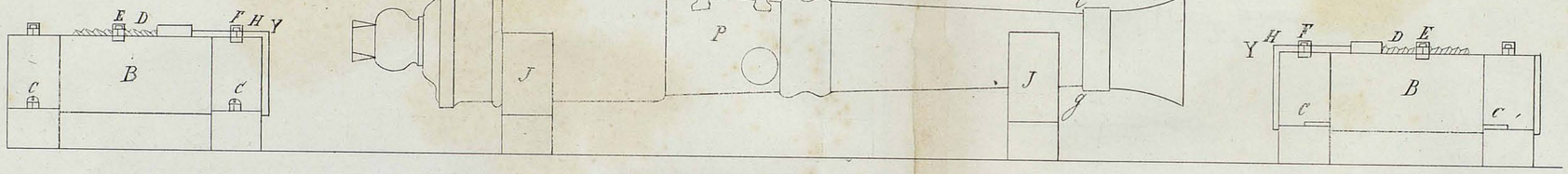


Fig.ª 7.ª

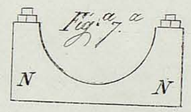


Fig.ª 5.ª

Fig.ª 8.ª

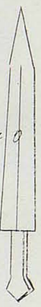
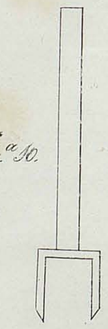


Fig.ª 11.ª

Fig.ª 12

Fig.ª 10.



1 2 3 4 5 6 7 Pies Españoles

Escala de las Fig.ª 1. 2. 4. 5. 6. y 7.

Fig.ª 9.ª

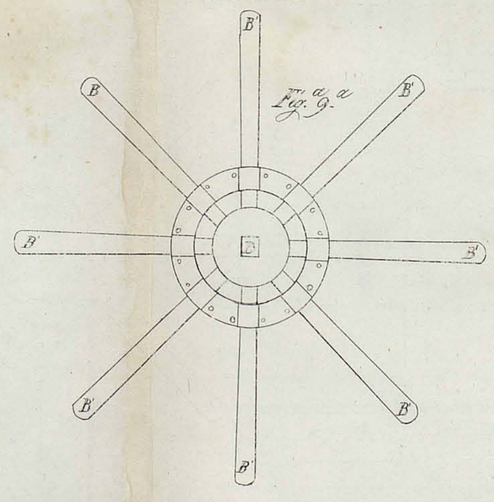

B
B
B

Fig.ª 1.ª

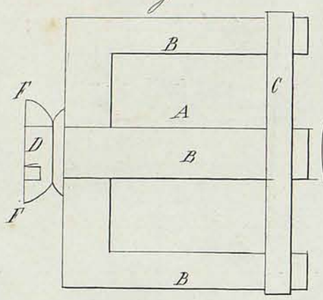


Fig.ª 2.ª

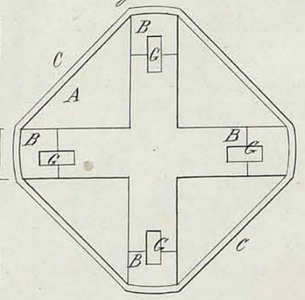
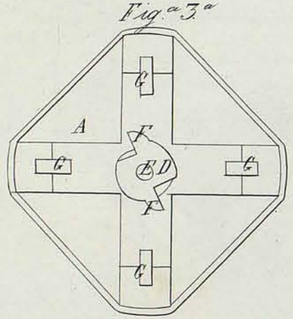


Fig.ª 3.ª



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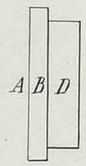

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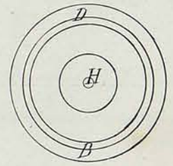

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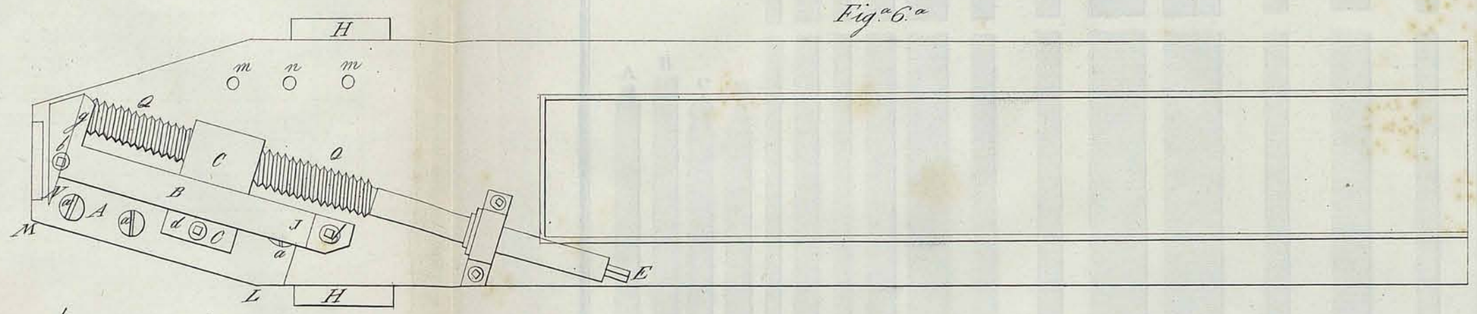

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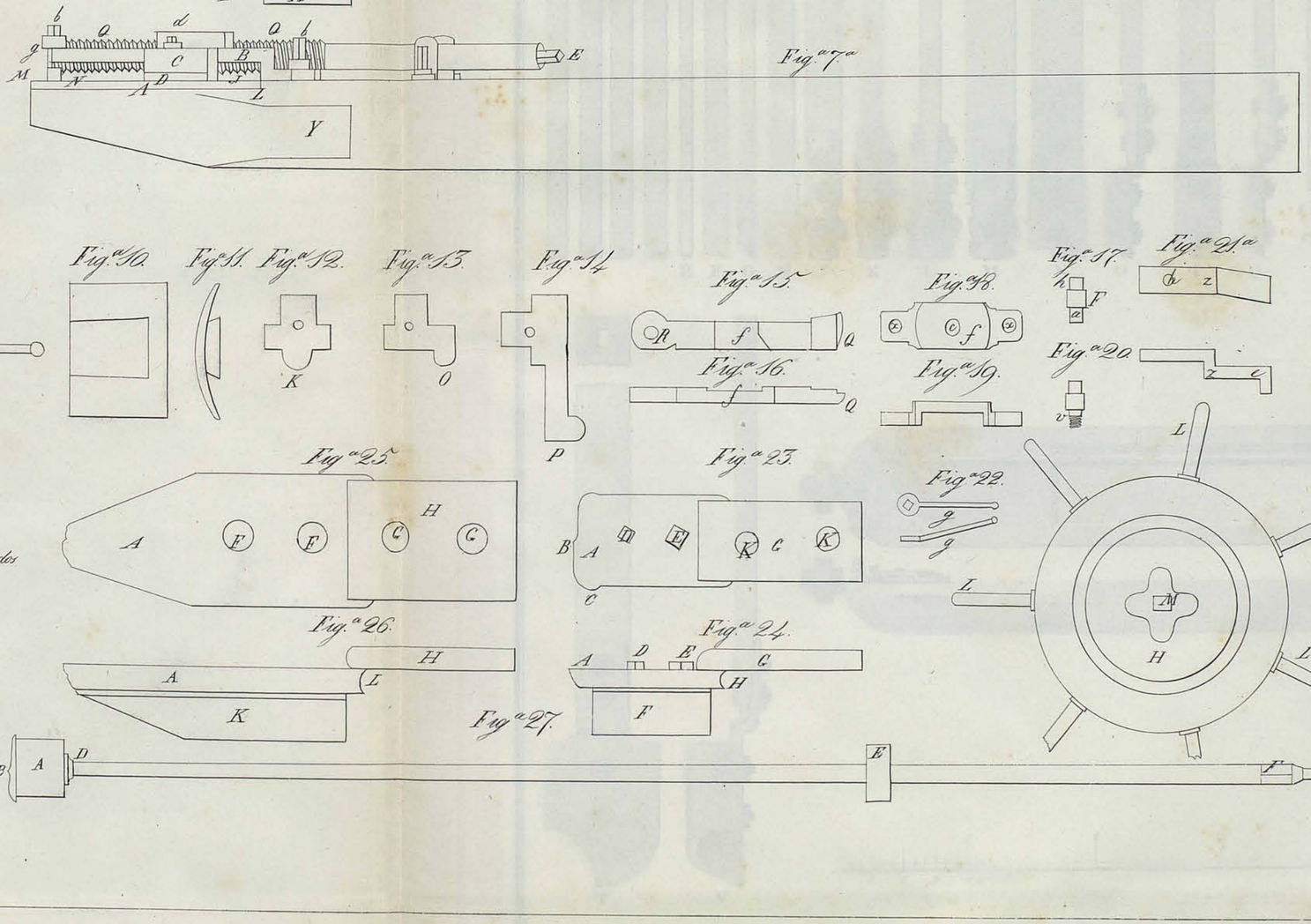

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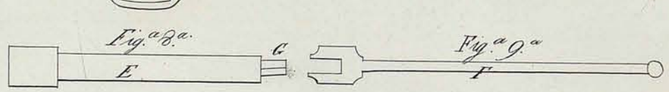


Fig.ª 9.ª

Fig.ª 10.

Fig.ª 11.

Fig.ª 12.

Fig.ª 13.

Fig.ª 14.

Fig.ª 15.

Fig.ª 16.

Fig.ª 17.

Fig.ª 18.

Fig.ª 19.

Fig.ª 21.ª

Fig.ª 20

Fig.ª 25.

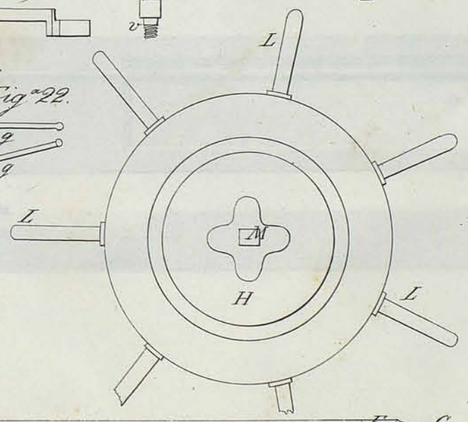
Fig.ª 23.

Fig.ª 22.

Fig.ª 26.

Fig.ª 24.

Fig.ª 27.

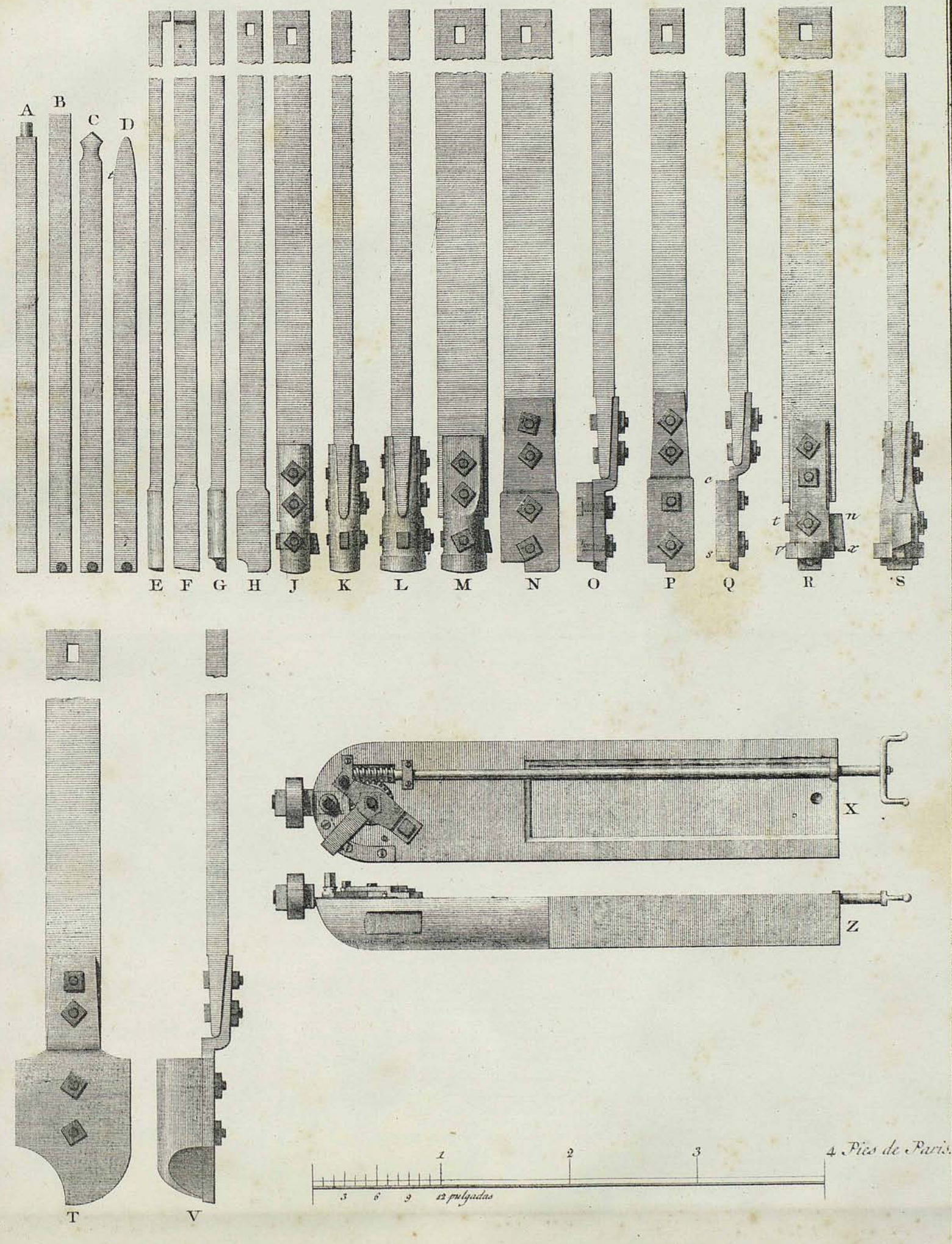


Escala

de las figuras 1, 2, 3, 4, 5, 27 y 28, una pulgada por pie de París y á dos pulgadas las demas.

M. P. de C. grav.

Lit.ª de Art.ª


A
B
C
D
E
F
G
H
J
K
L
M
N
O
P
Q
R
S
c
s
t
n
r
x
T
V
X
Z
1
2
3
4 Pies de Paris.
3
6
9
12 pulgadas

Lam.ª 27

Figura 2.ª

Figs. 3.ª y 4.ª

Escala $\frac{1}{10}$ al natural.

Pul.ª de Castilla

A

Al Excmo. Sr. Conde de Toreno.

Fig.a 11.

Fig.a 12.

Fig.a 13.

Perfil por las lineas CH, EJ del plano.

Fig.a 4.a

Fig.a 5.a

Fig.a 8.

Fig.a 7.

Fig.a 9.

Fig.a 15.

Fig.a 10.

Fig.a 3.a

Fig.a 6.a

Elevacion por la linea CD del plano.

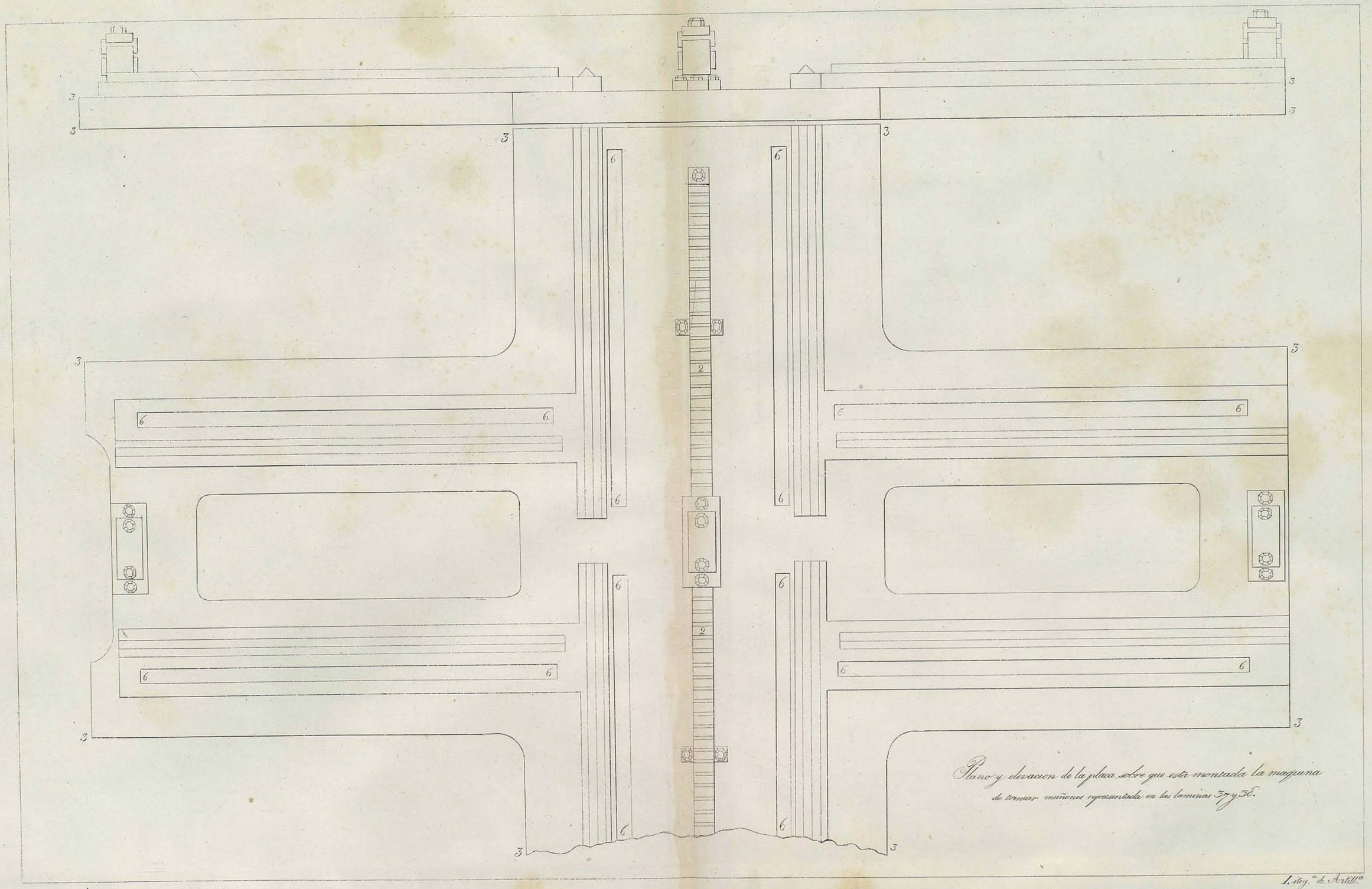
Fig.a 14.

Fig.a 16.

Fig.a 17.

Fig.a 18.

Fig.a 20.



Plano y elevacion de la placa sobre que esta montada la maquina de tornear muñones representada en las laminas 37 y 38.

Fig. 1.

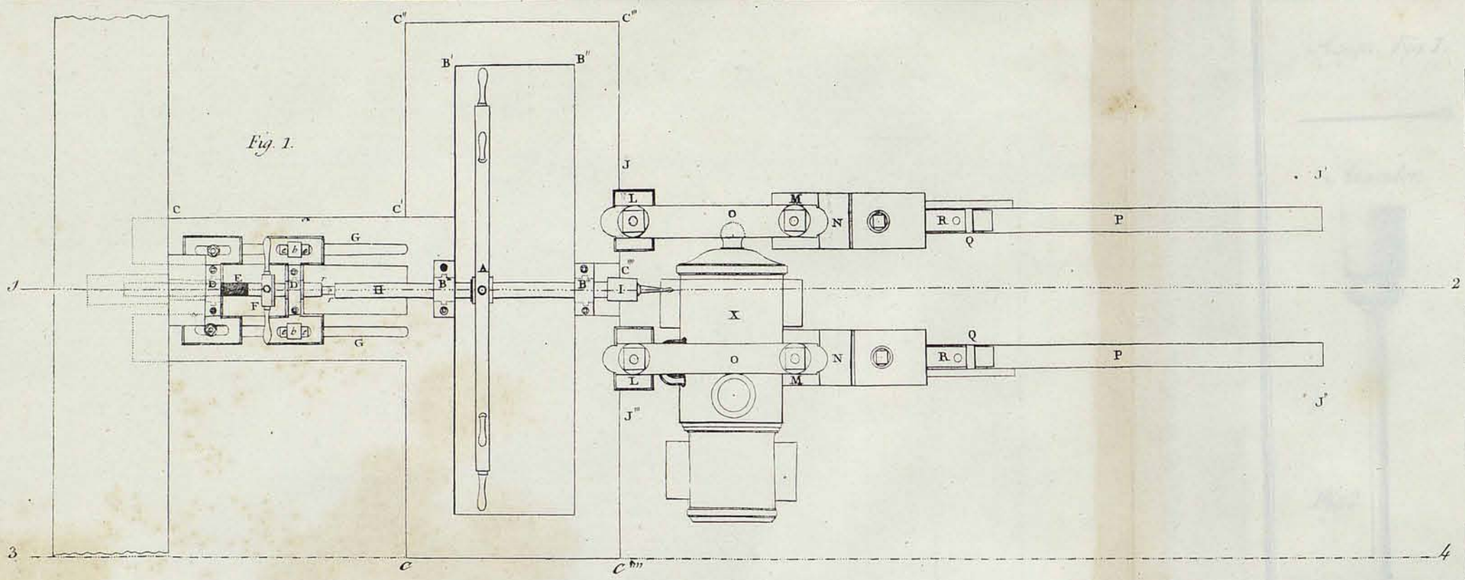


Fig. 2.

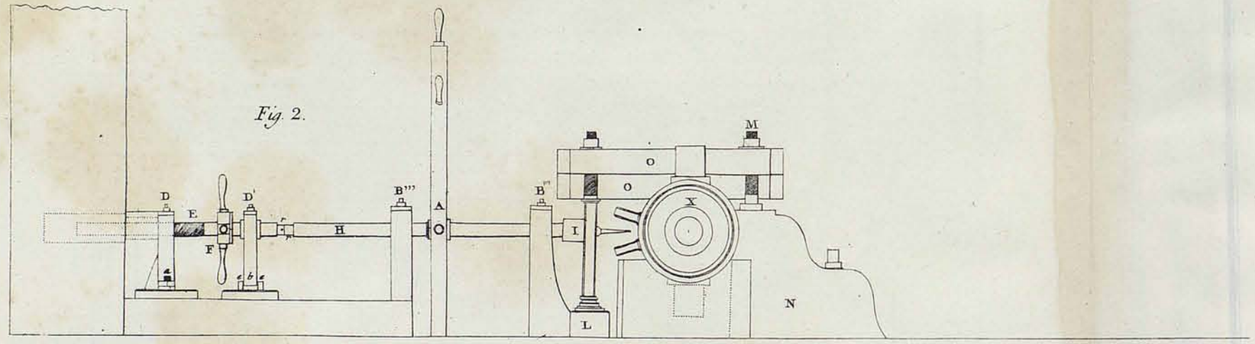


Fig. 2.

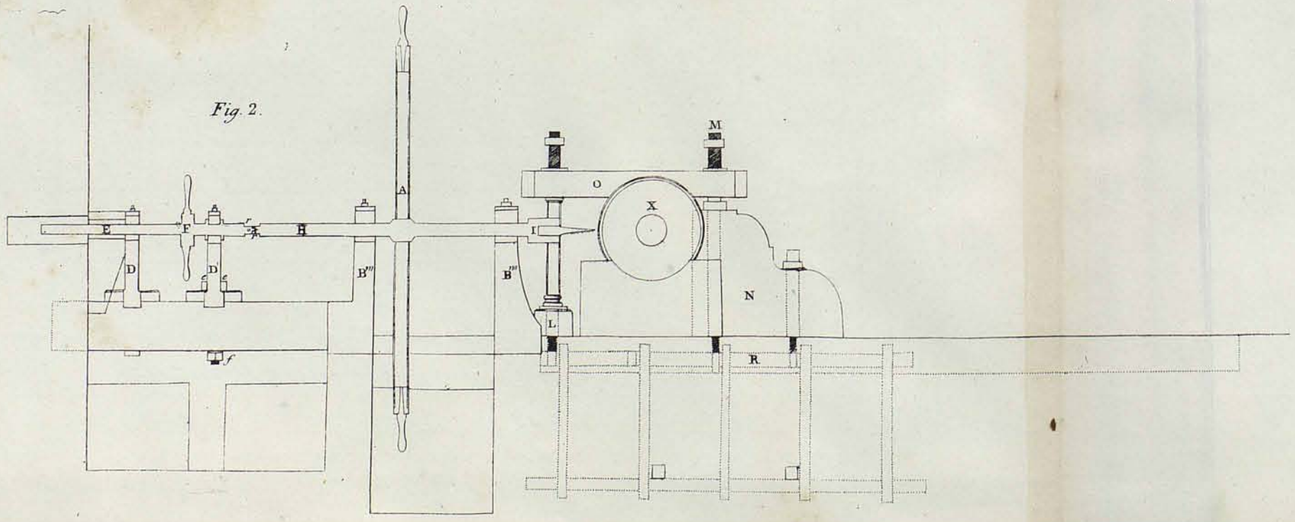
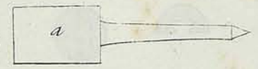


Fig. 3.

Fig. 4.



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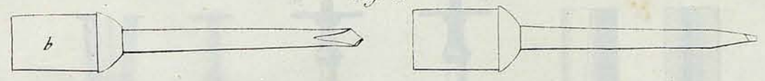

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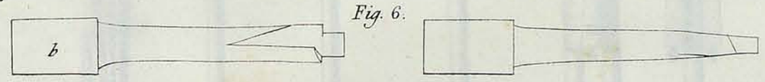

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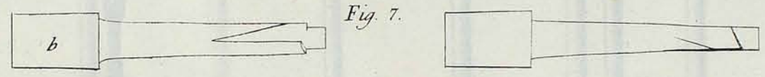

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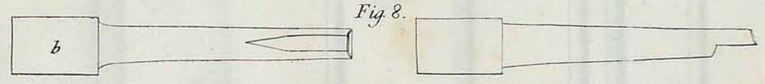


Fig. 9.

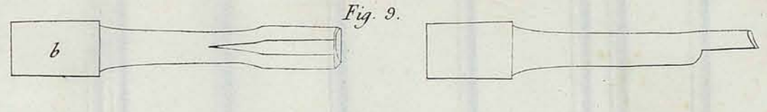
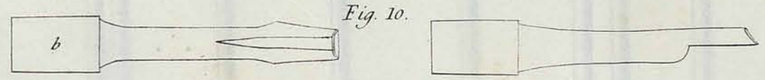


Fig. 10.



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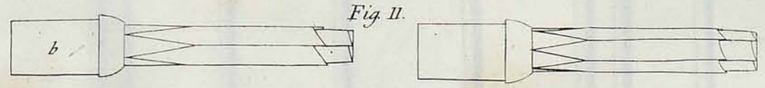

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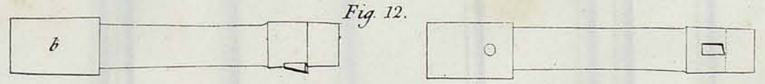

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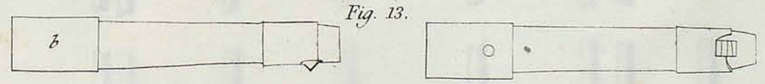

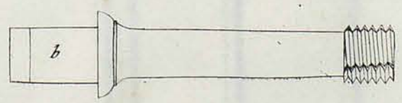

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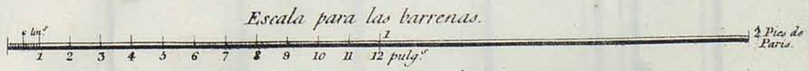

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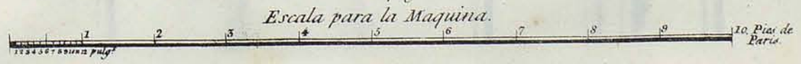
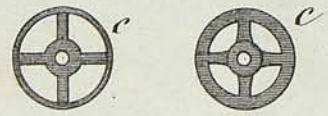


Aguja. Fig. 1.

Gato.

Cruzetas, ò Estrellas.



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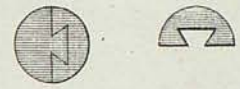
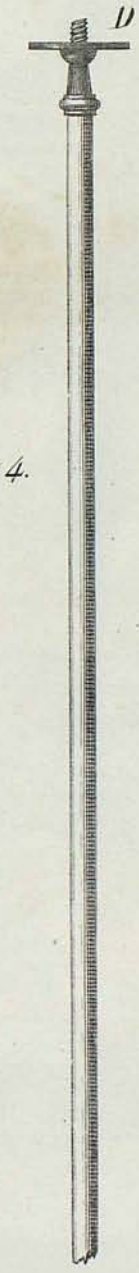


Atacador.

Fig. 2.

Fig. 3.

Fig. 4.



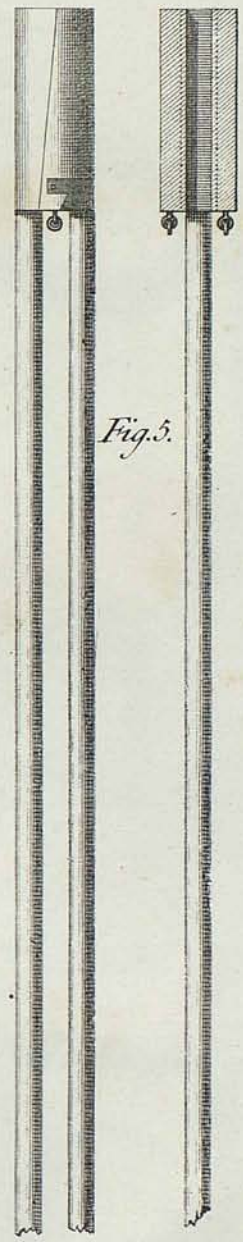


Fig. 5.

Sonda.

Fig. 6.

Ft. Selma.

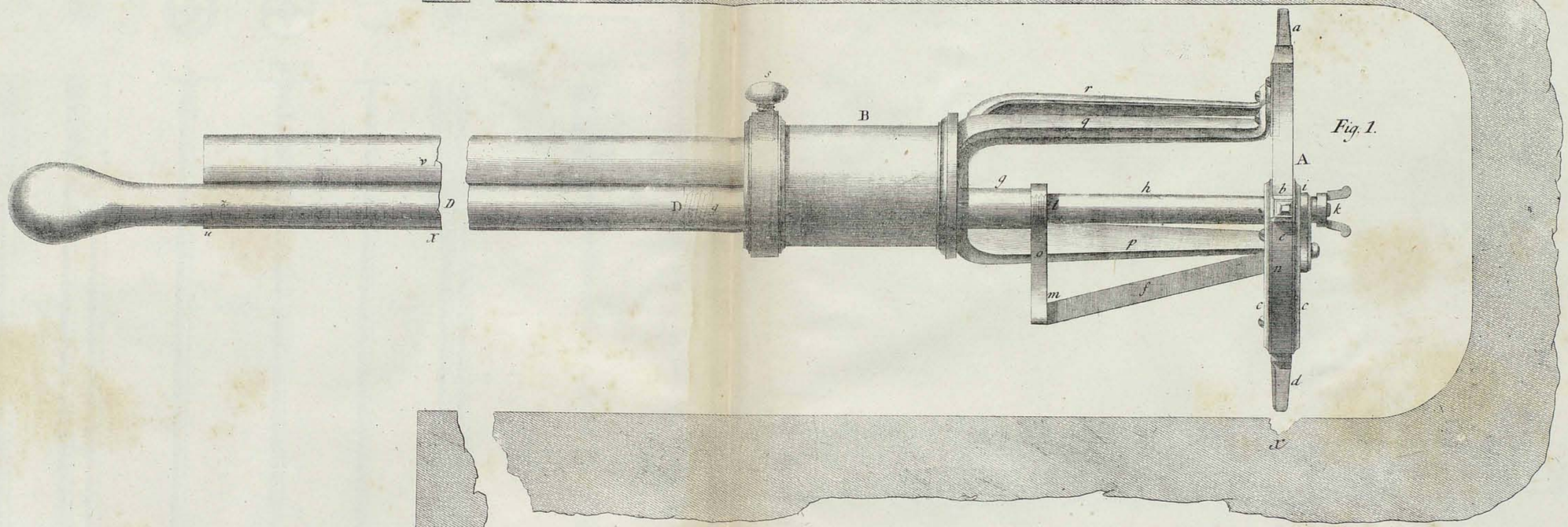
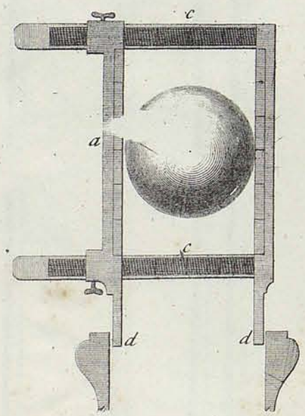


Fig. 1.

Fig. 5.



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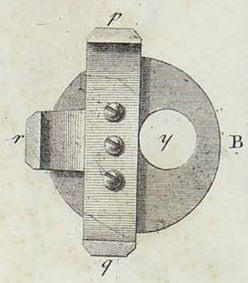

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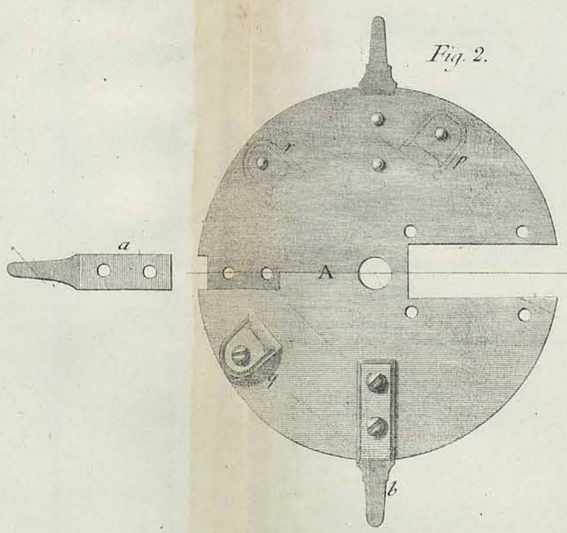

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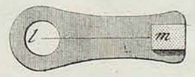


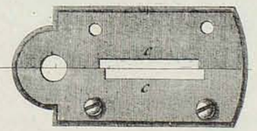
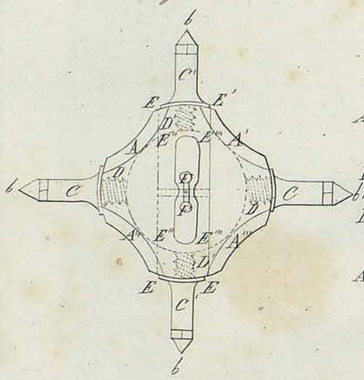


Fig. 4.

Fig. 3.

Fig. 8.

Fig.ª 1.ª



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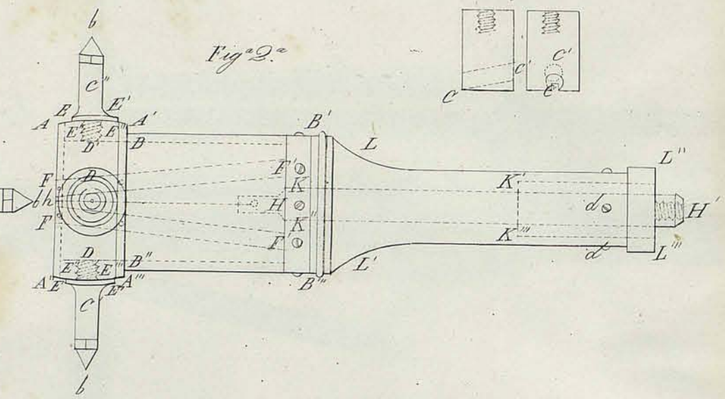
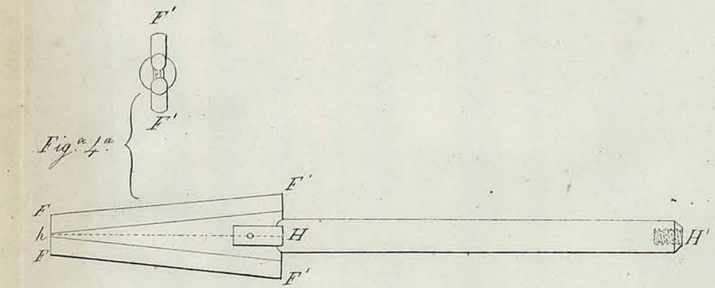


Fig.ª 3.ª

Fig.ª 4.ª



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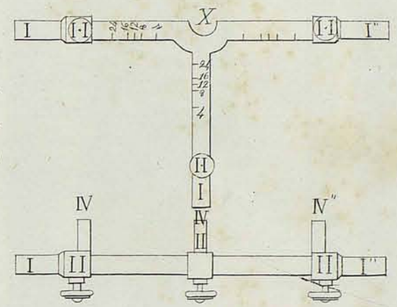

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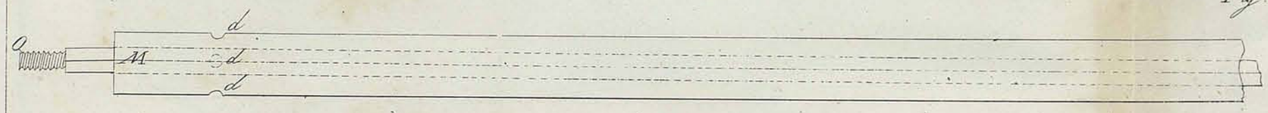

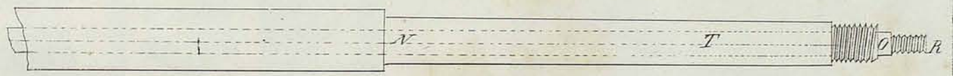

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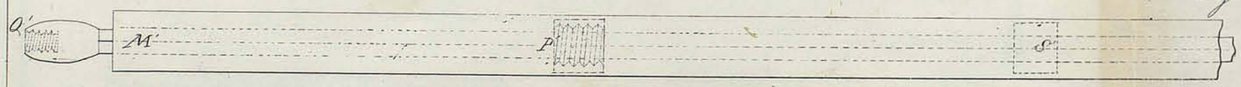

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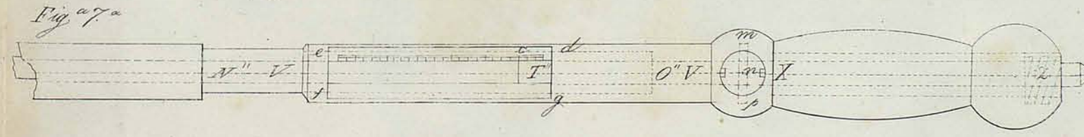

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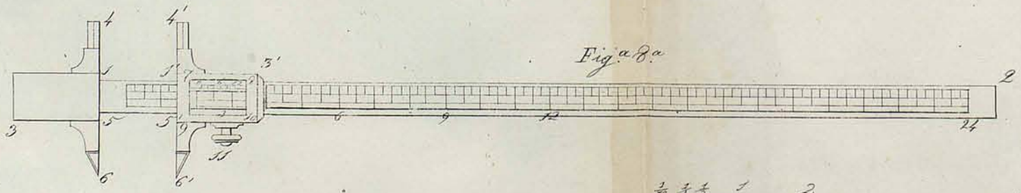
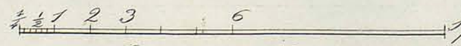
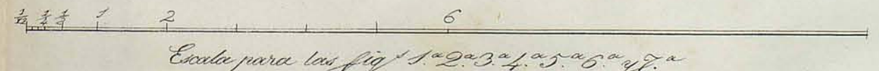




Escala p.ª las fig.ª 8.ª y 9.ª



Escala para las fig.ª 1.ª 2.ª 3.ª 4.ª 5.ª 6.ª y 7.ª

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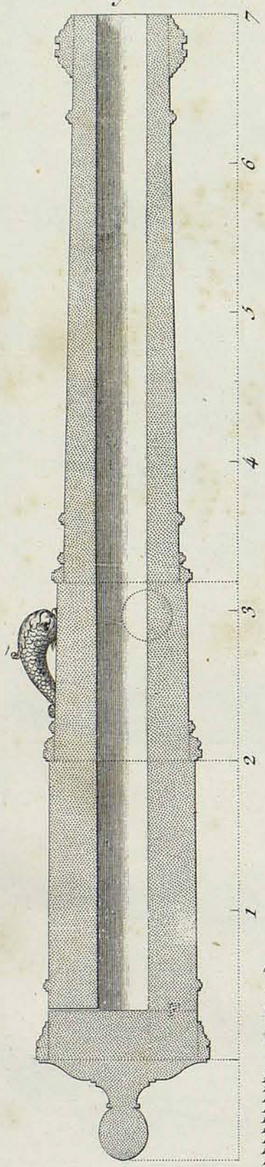

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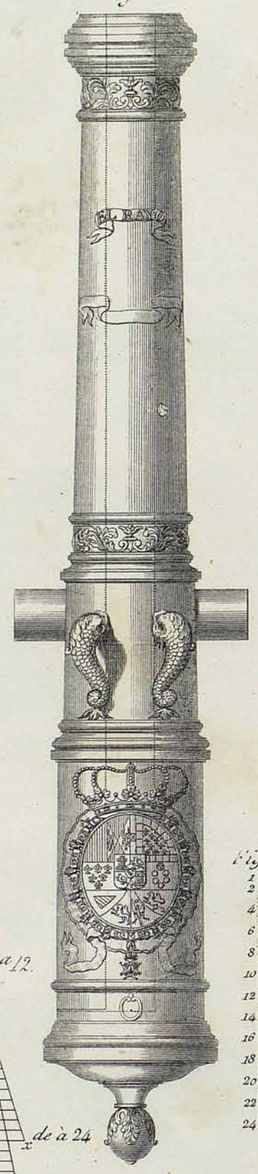

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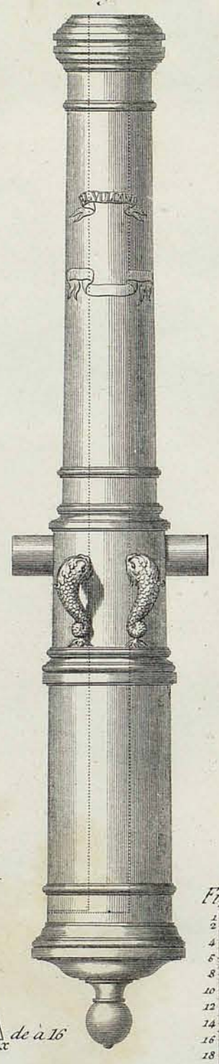

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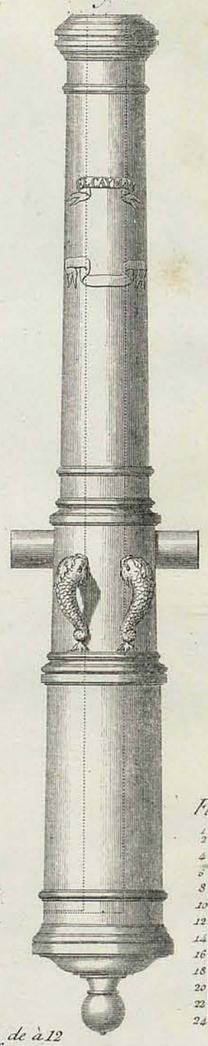

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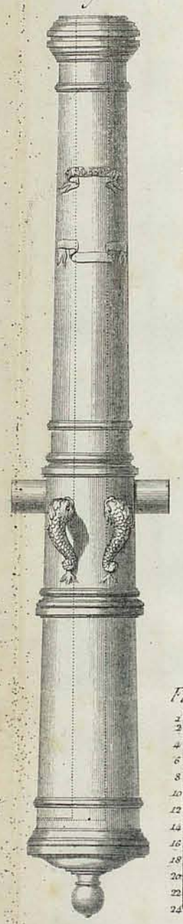

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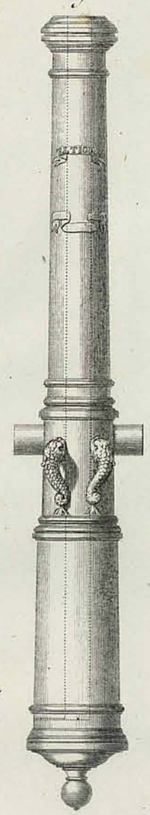
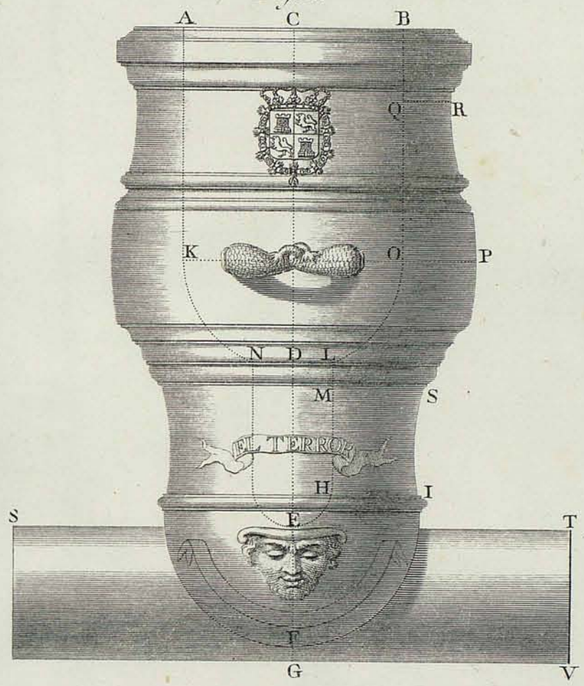


Fig. 16

Fig. 17.



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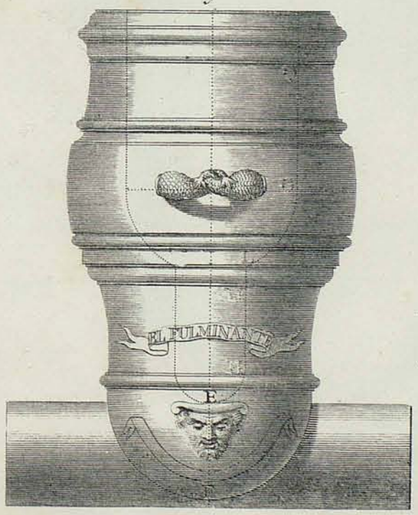

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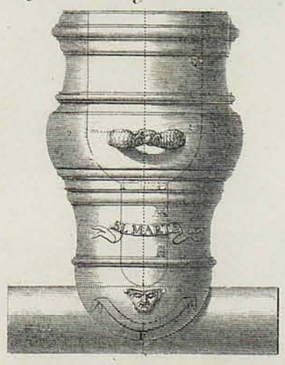
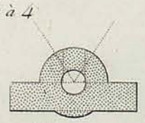


Fig. 15

Fig. 11.



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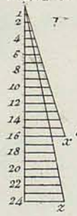

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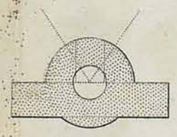

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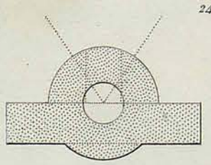

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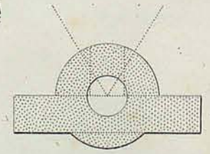

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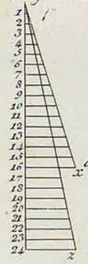

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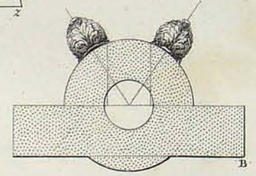

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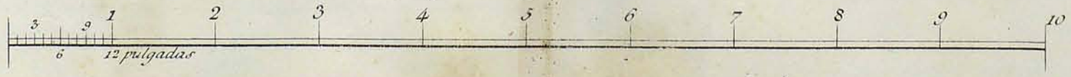

Escala para los Morteros.

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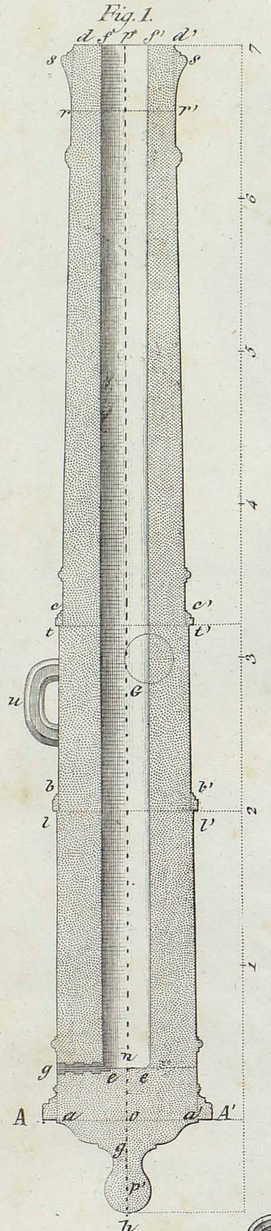

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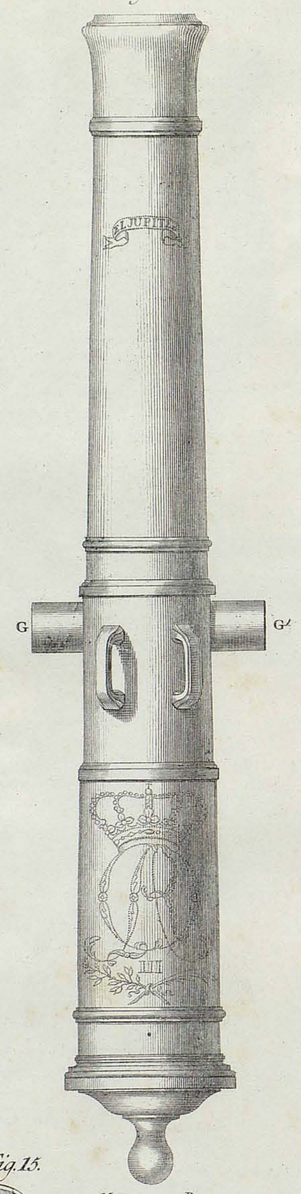

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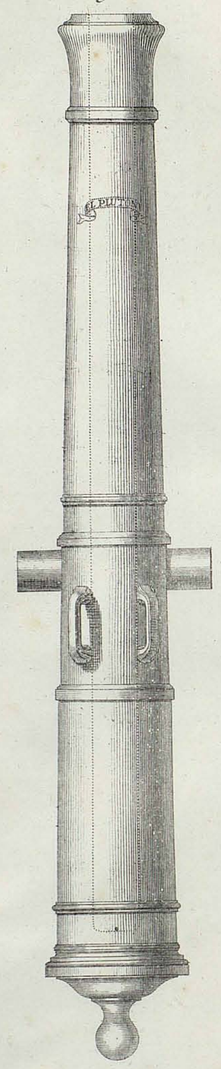

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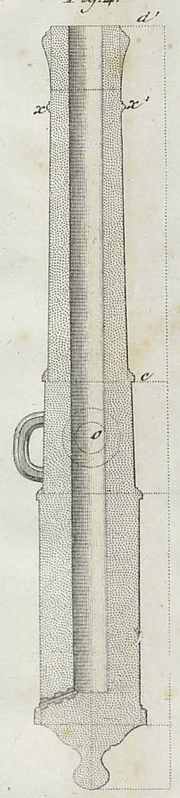

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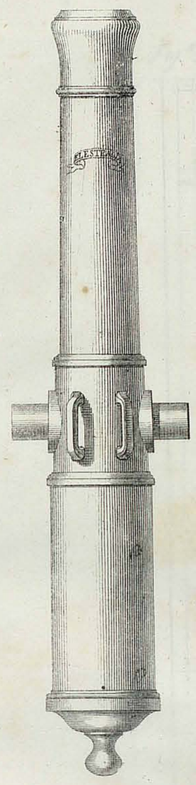

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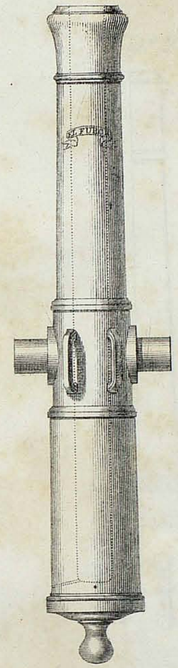

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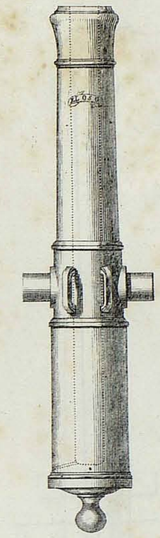

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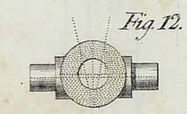

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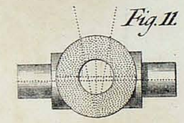

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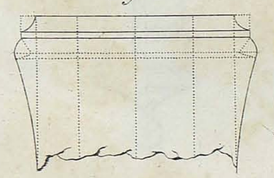

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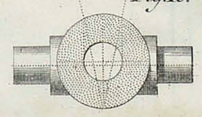

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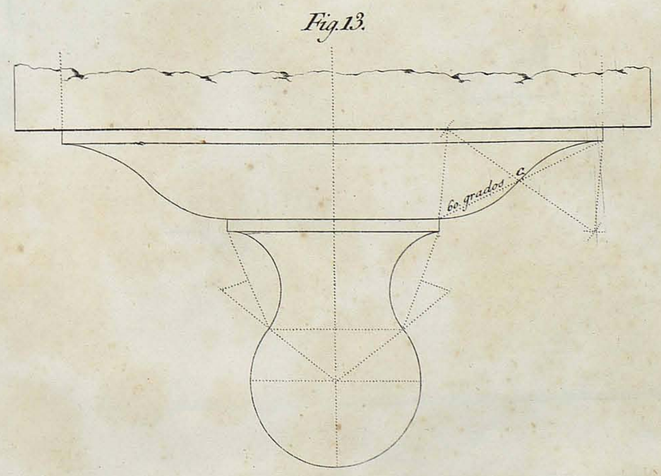

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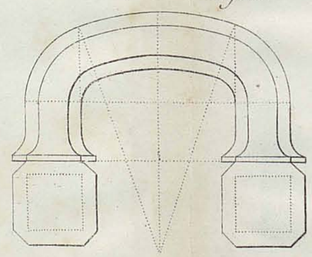

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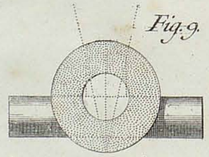

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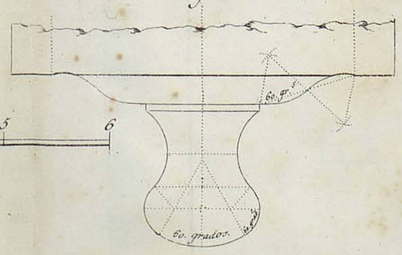
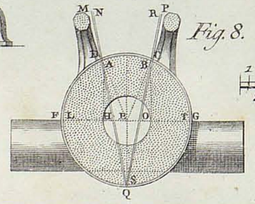


Fig. 15.

Fig. 8.



J. Ballester.

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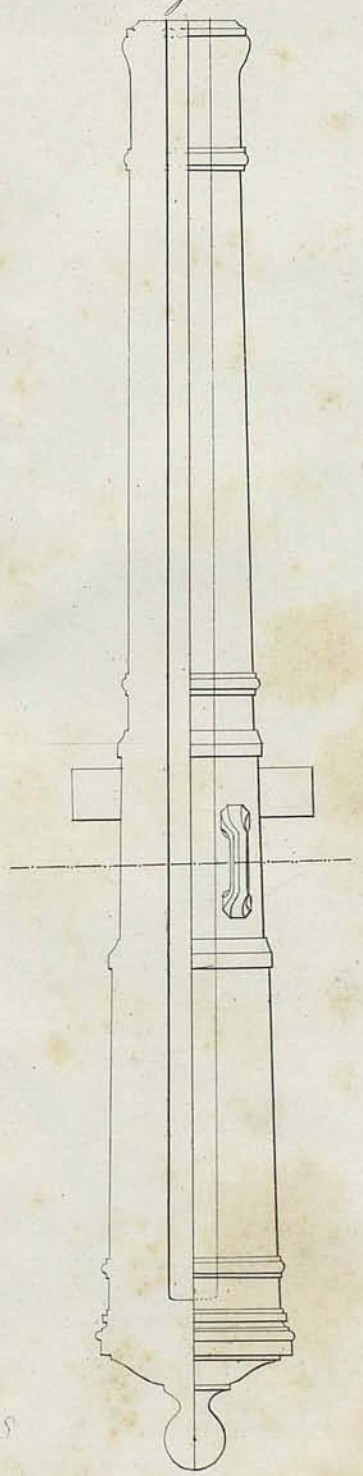

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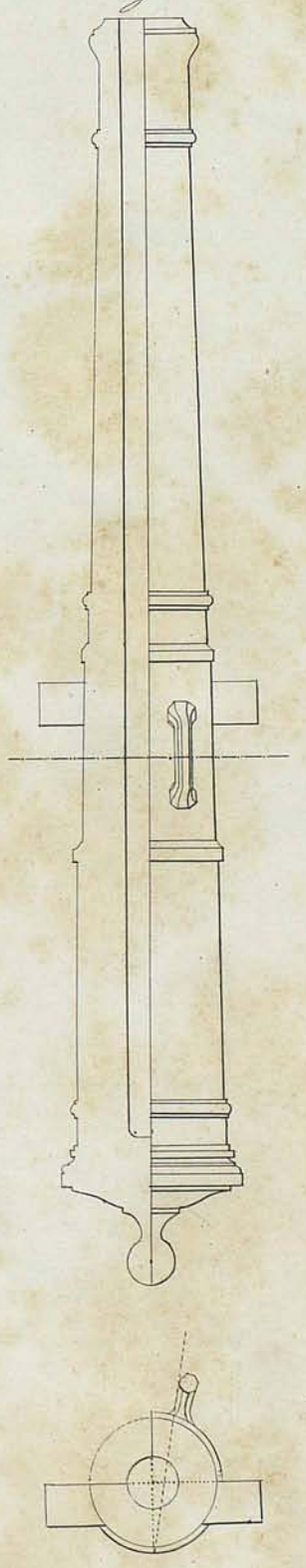

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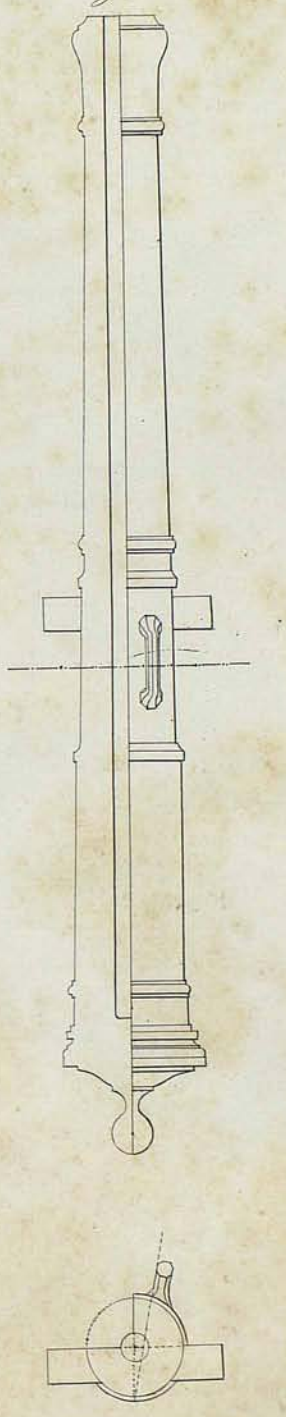
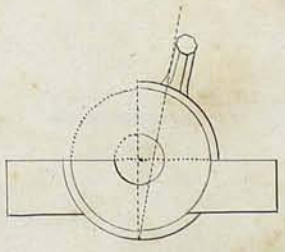
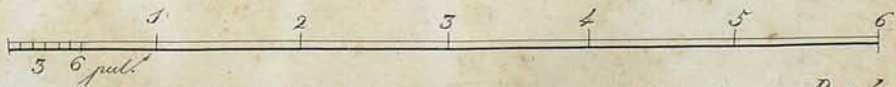




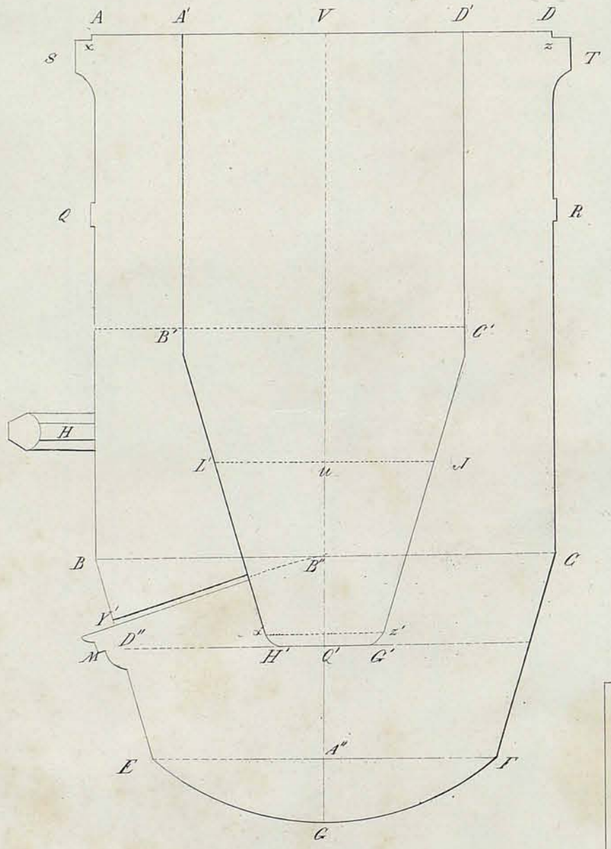


Pres de Paris.

M.l P.de C.gra.

Lit de Artill.a

Fig.ª 2.ª



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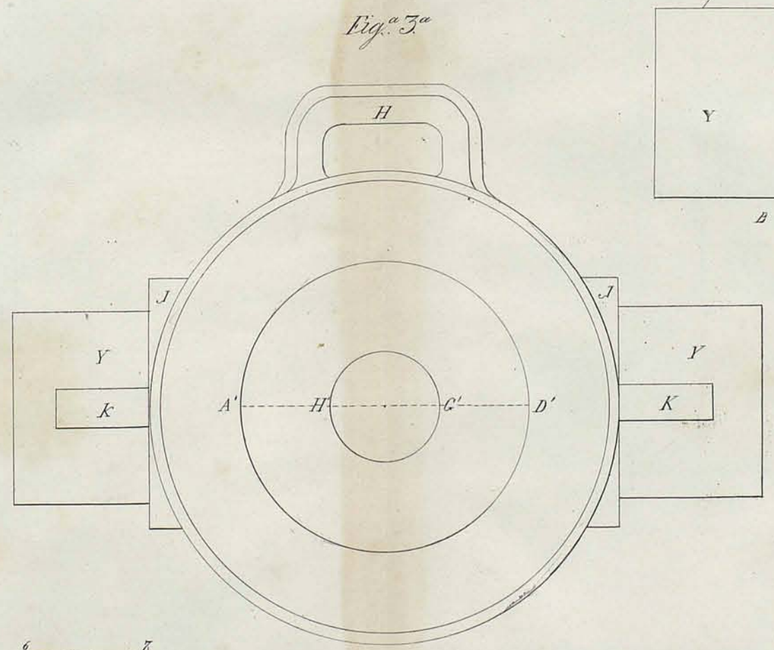

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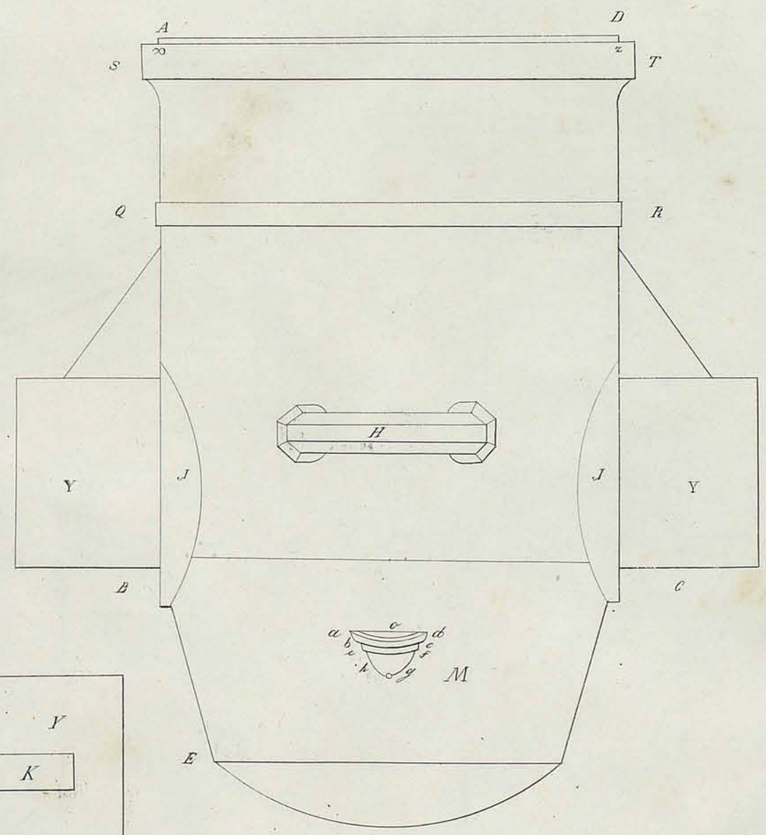


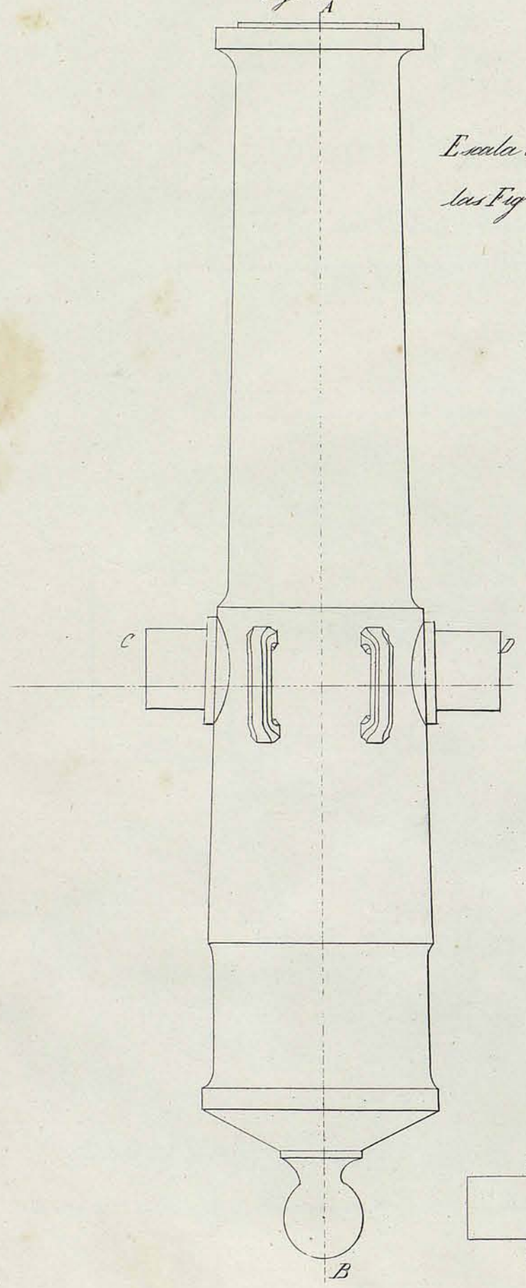
Escala de 2 pulgadas por pie.

Pies de Castilla.

M. Perez de Castro grav.

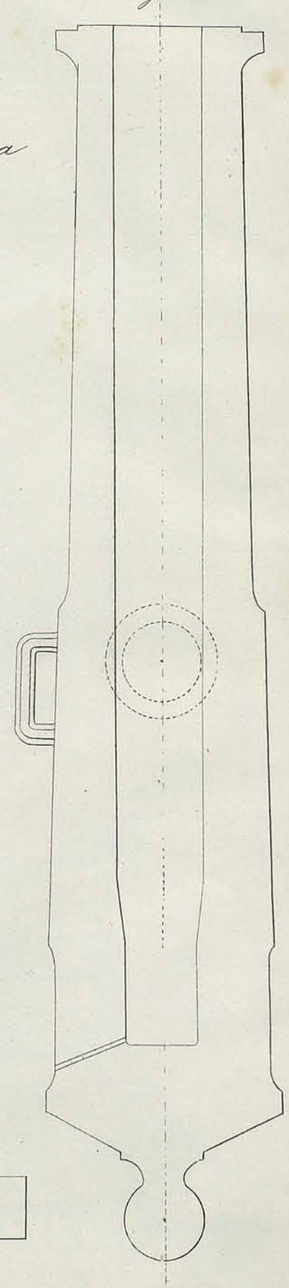
Lit de Art.ª

Fig.ª 3.ª



Escala de $\frac{1}{12}$ del natural para las Figs. 3, 4, y 10.

Fig.ª 4.ª



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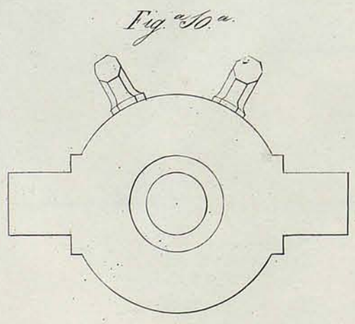

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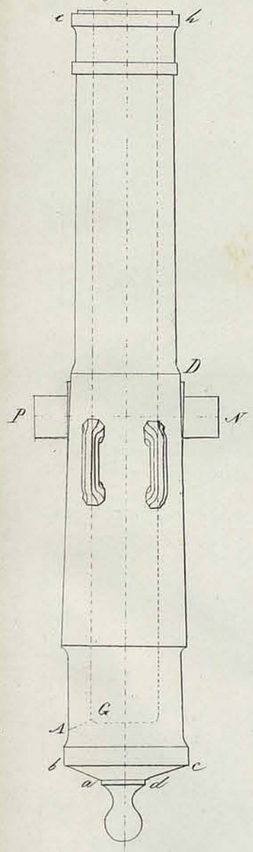

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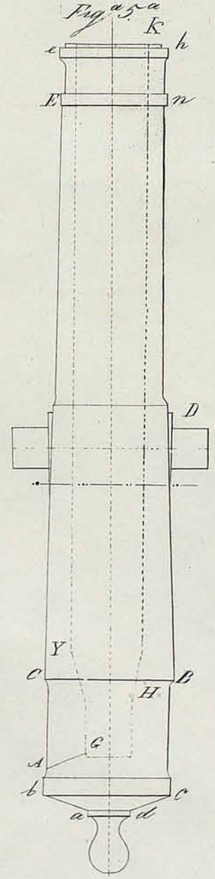

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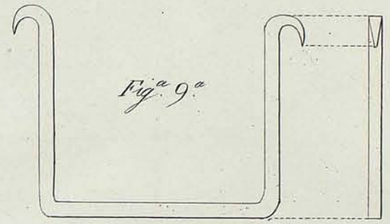

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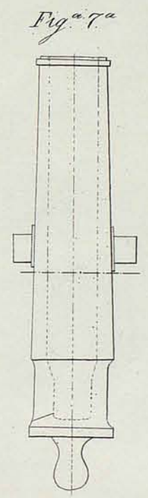

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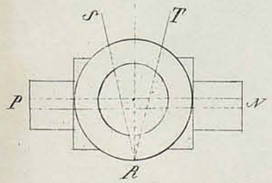

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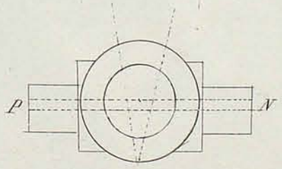

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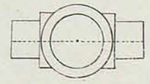
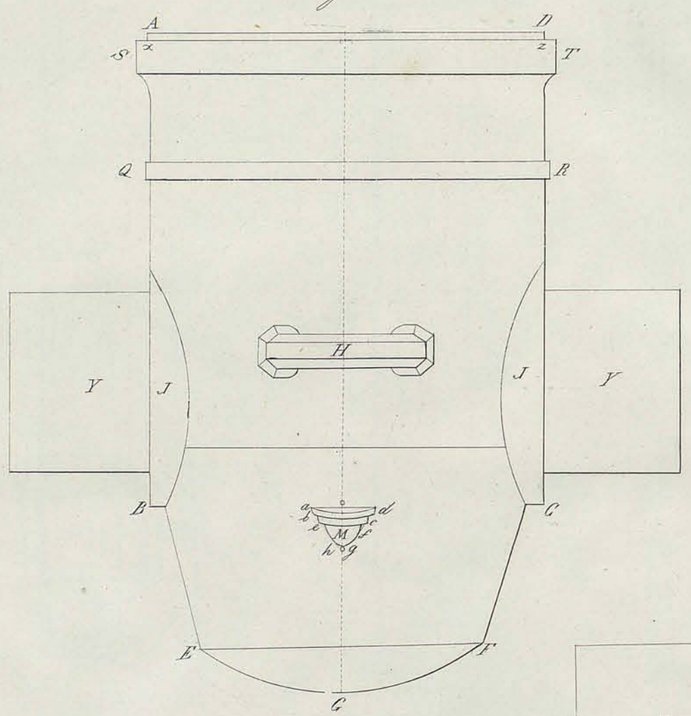


Escala de 1 pulgada por pie de Burgos para las Figs.ª 1, 2, 5, 6, 7, 8, y 9.

Fig.ª 1.ª



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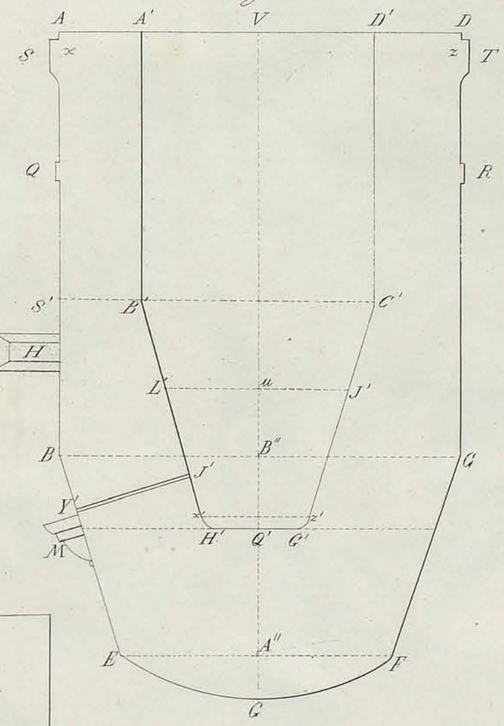

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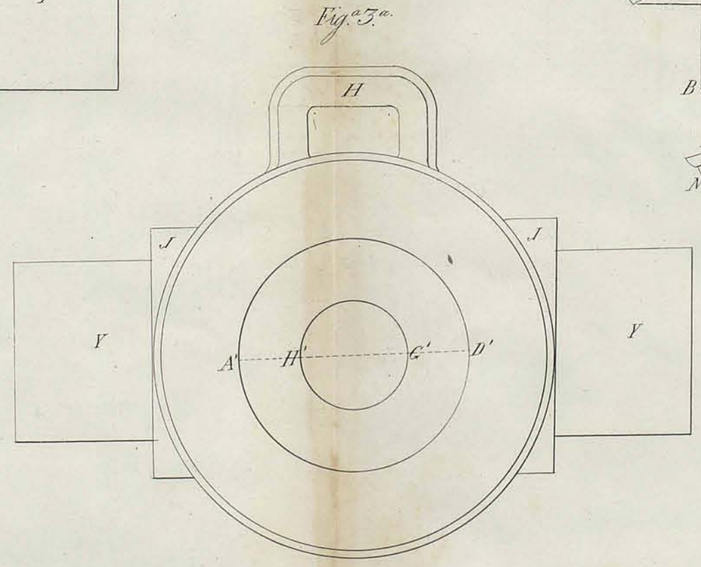
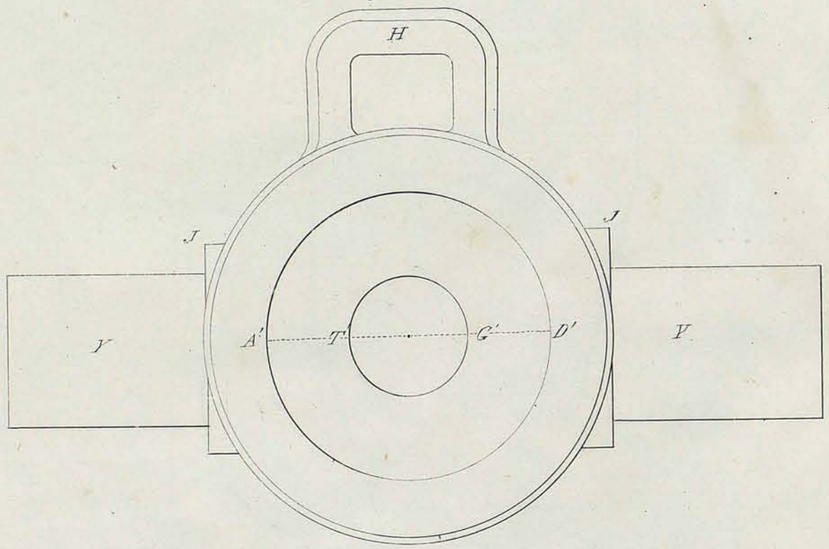


Escala de dos pulgadas por pié.

Fig.ª 3.ª



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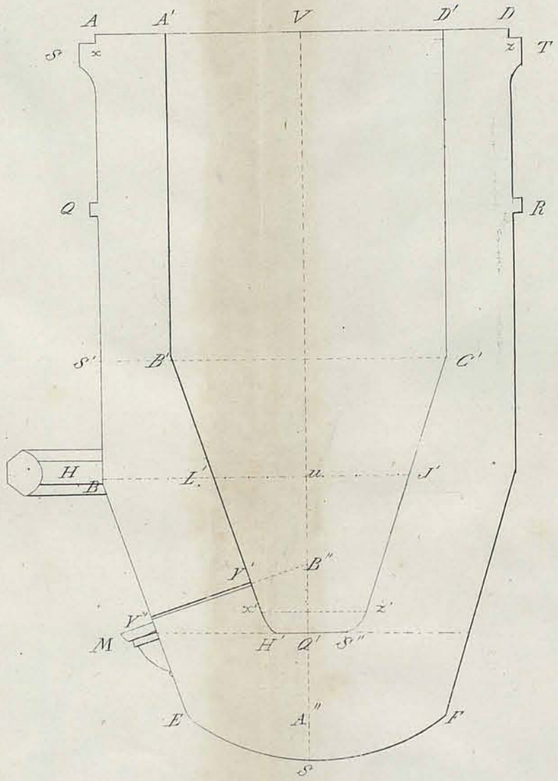

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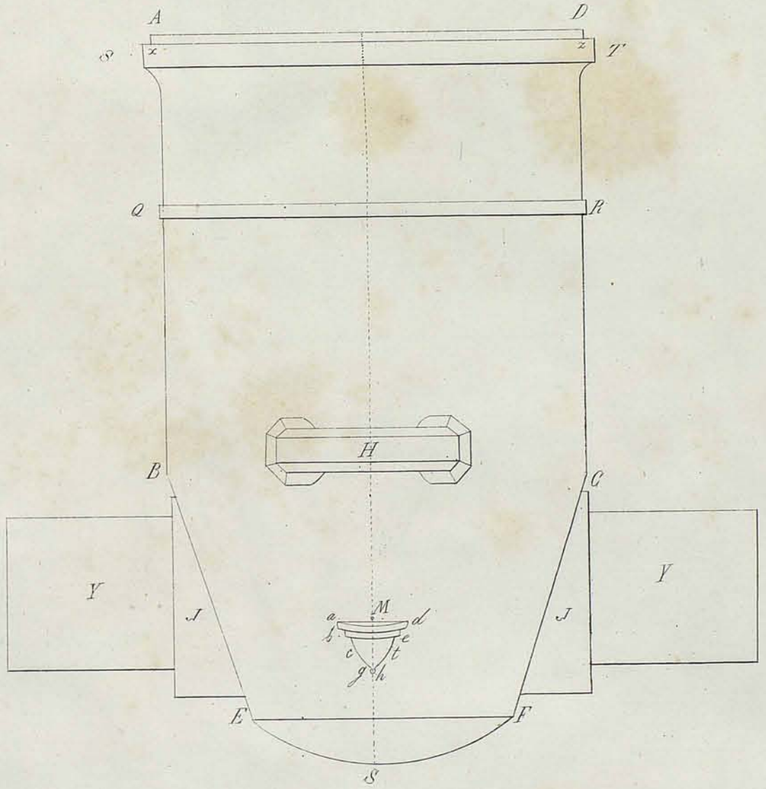


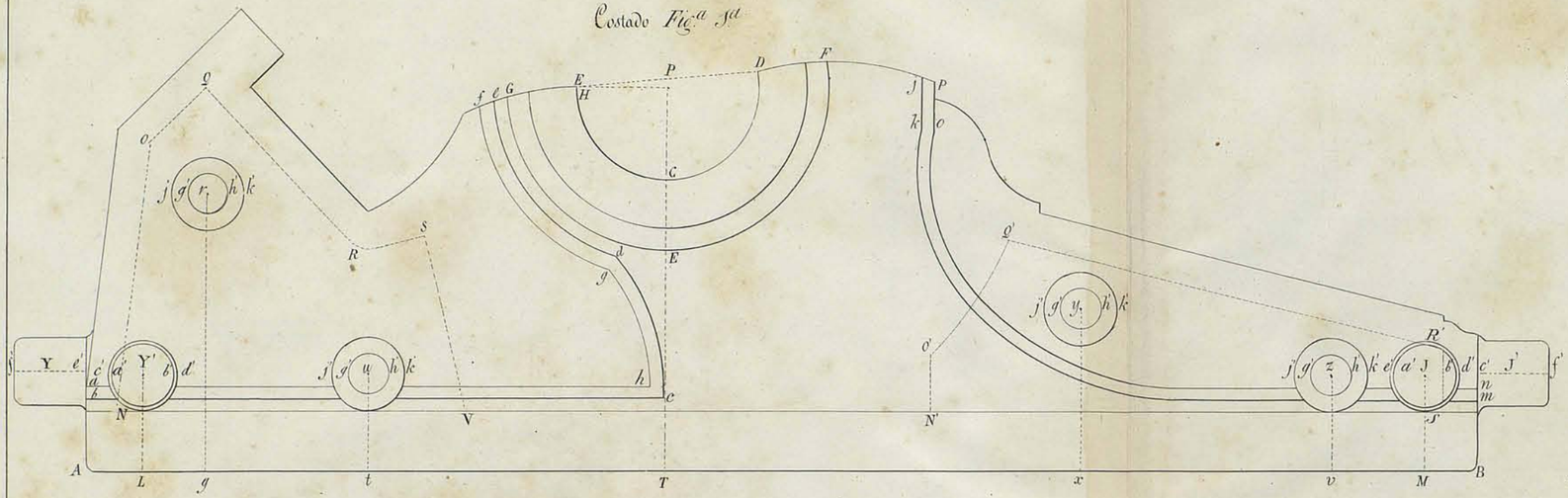
Escala de 1 pulgada por pie de Castilla.

M. Perez de Castro gra.

Lit. de Artillería.

Gualdera de bronce para afuste de mortero conico del calibre de á 24.

Costado Fig.ª 1ª



Elevacion por la testera del de á 24

Fig.ª 2ª

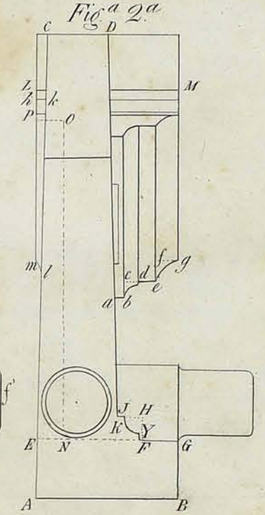


Fig.ª 8ª

Fig.ª 6ª

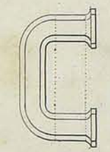
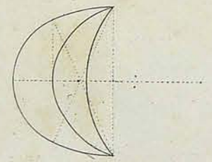
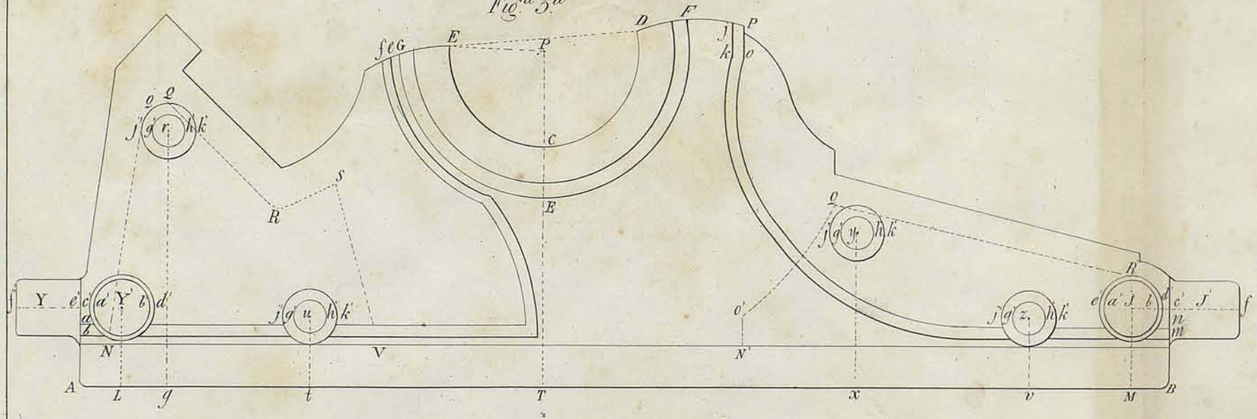


Fig.ª 7ª



Ydem para el calibre de á 12

Fig.ª 3ª



Ydem del de á 12.

Fig.ª 4ª

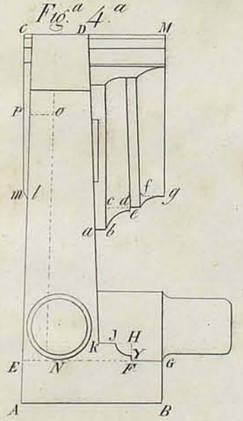


Fig.ª 5ª

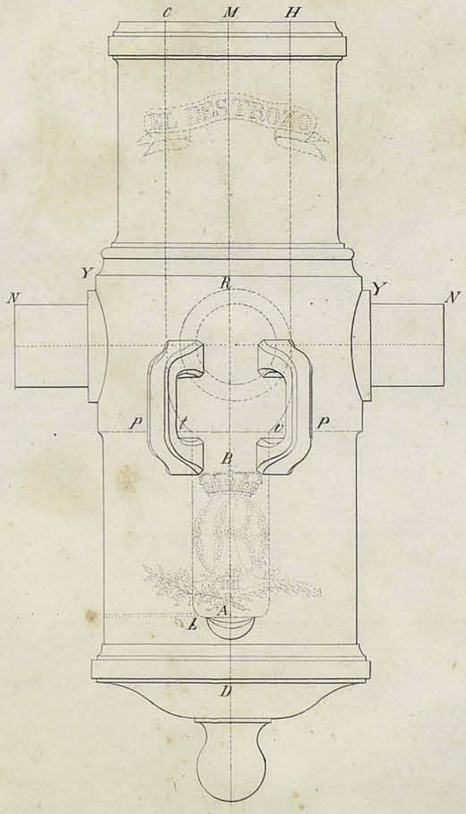
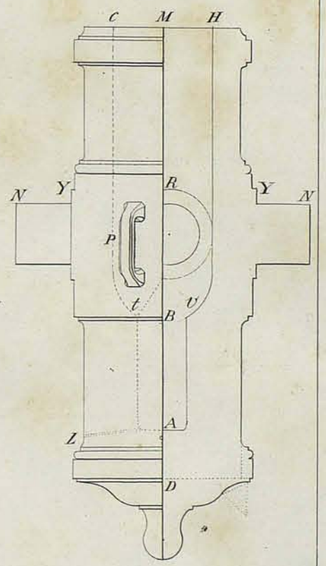
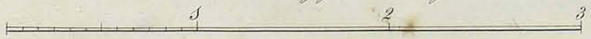


Fig.ª 9ª

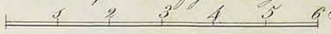


Escala para las figuras 1 2 3 4

Escala para las figuras 5 6 y 9



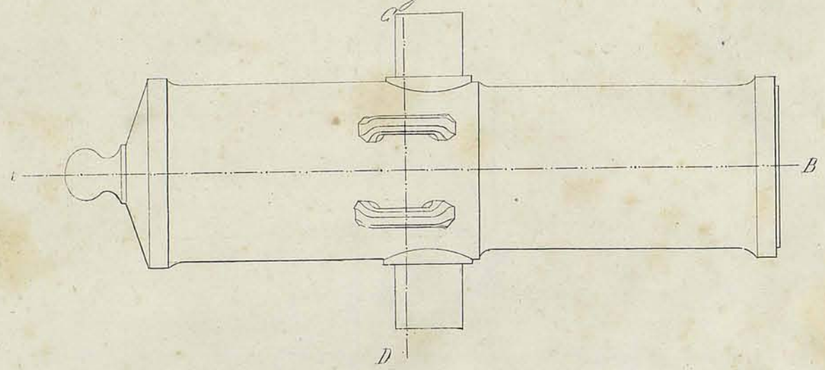
Escala para las figuras 7 y 8



J. A. de Aramburu, gra.

Lit. de Artill.

Fig.ª 1.ª



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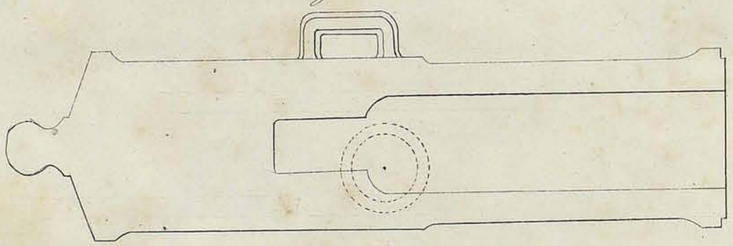
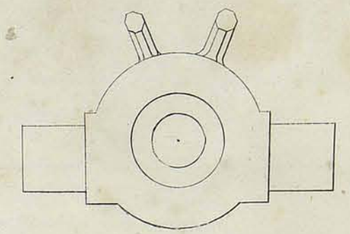


Fig.ª 3.ª



Escala $\frac{1}{12}$ del natural.

Fig.ª 4.ª

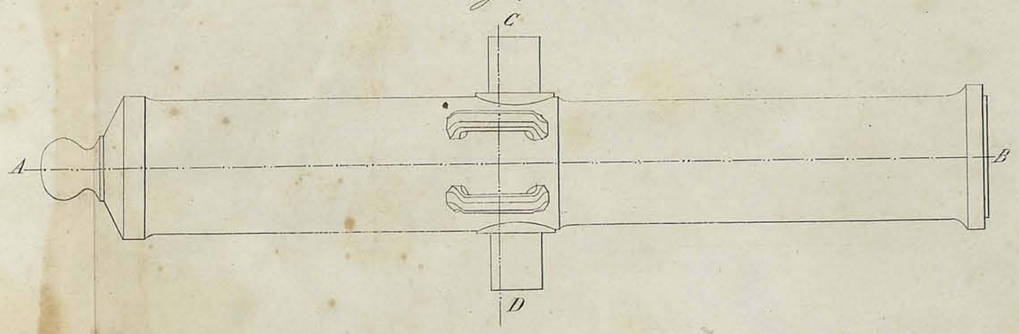
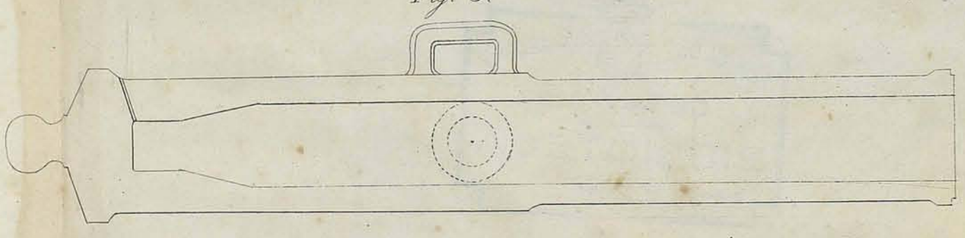


Fig.ª 5.ª



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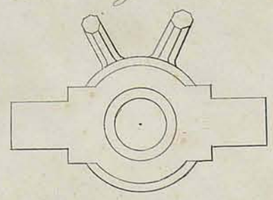

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