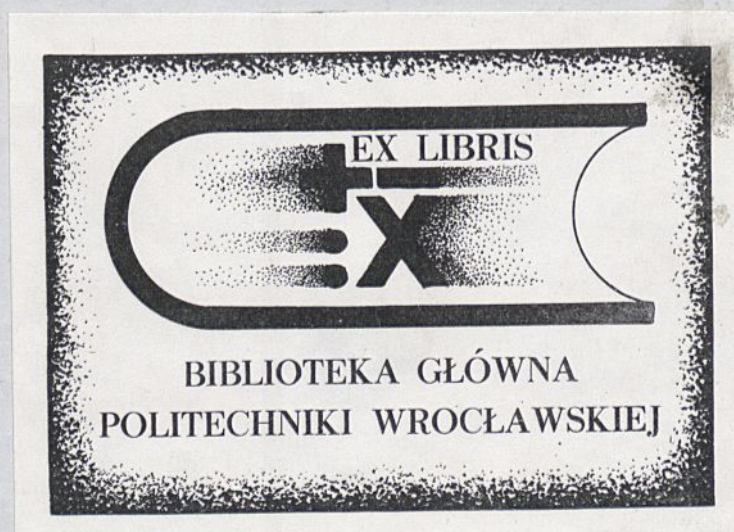




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**PUBLICATION INDUSTRIELLE**  
DES  
**MACHINES, OUTILS ET APPAREILS**

**LES PLUS PERFECTIONNÉS ET LES PLUS RÉCENTS**

EMPLOYÉS

DANS LES DIFFÉRENTES BRANCHES DE L'INDUSTRIE FRANÇAISE ET ÉTRANGÈRE

PAR

**ARMENGAUD AINÉ**

INGÉNIEUR, ANCIEN PROFESSEUR AU CONSERVATOIRE IMPÉRIAL DES ARTS ET MÉTIERS

MEMBRE DE LA SOCIÉTÉ D'ENCOURAGEMENT ET DE LA SOCIÉTÉ INDUSTRIELLE DE MULHOUSE

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*1912. 499.*  
TOME NEUVIÈME

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**PLANCHES**  
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PARIS

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—  
1855

PUBLICATION INDUSTRIELLE

MACHINES OUTILS ET APPAREILS

LES DIVERS INSTRUMENTS ET APPAREILS

EXPOSITION

DANS LES DIFFERENTES BRANCHES DE L'INDUSTRIE MANUFACTURIERE ET ARTISANALE



No. 24924.

PARIS

CHATELAIN, 10, RUE DE LA HARPE, PARIS

1889

ET LES BUREAUX DE LA SOCIETE

1889

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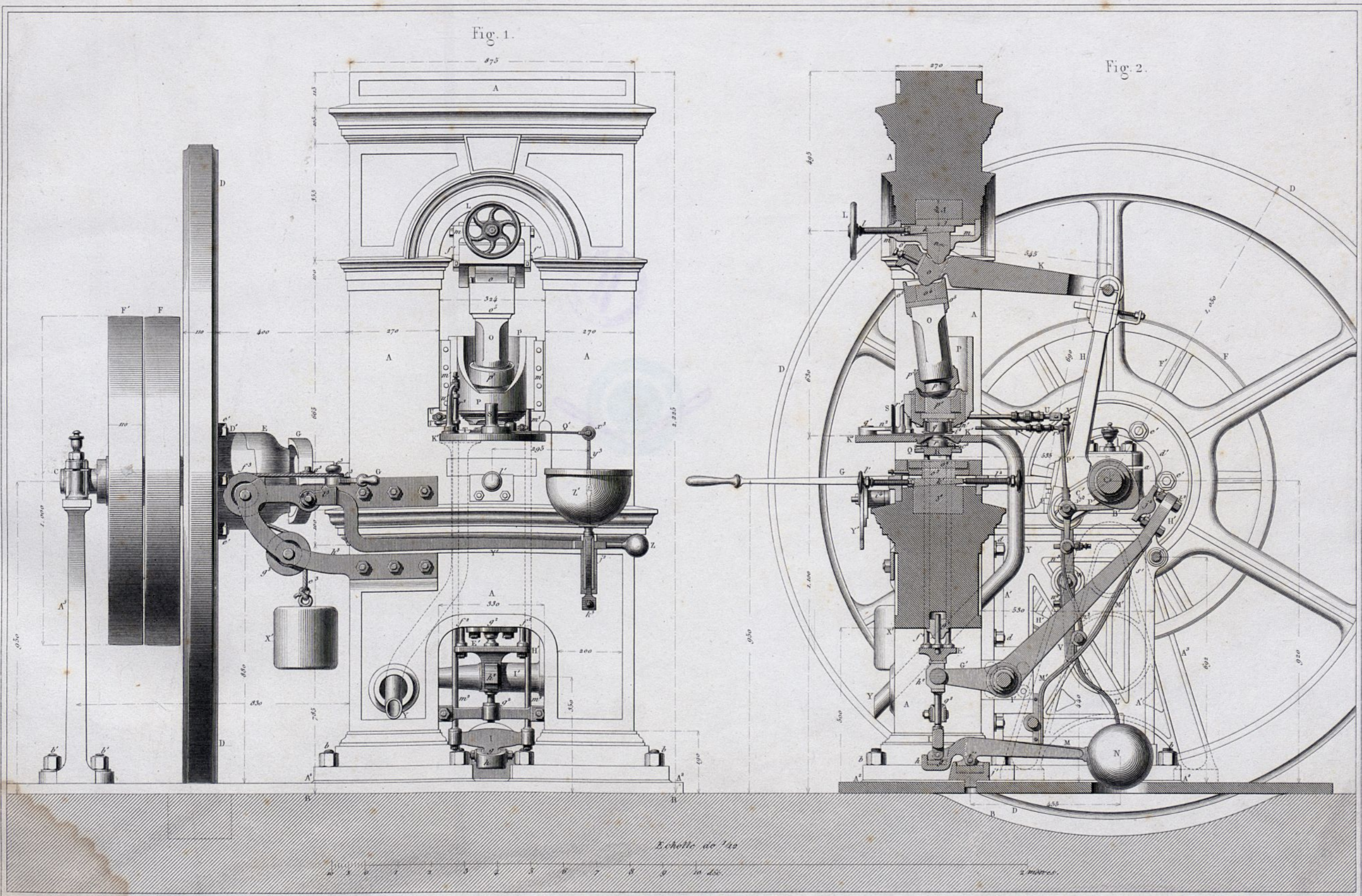
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Fig. 1.

Fig. 2.



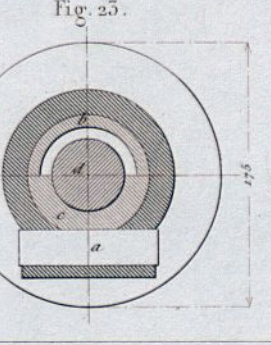
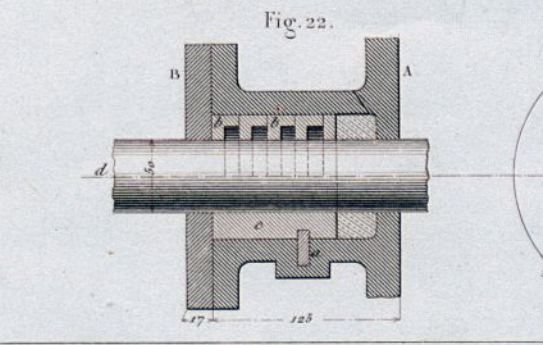
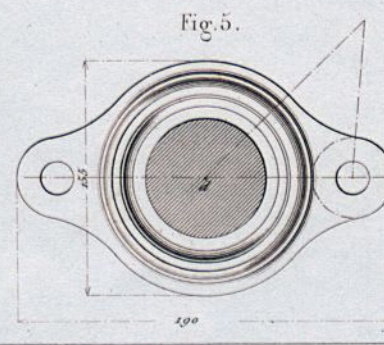
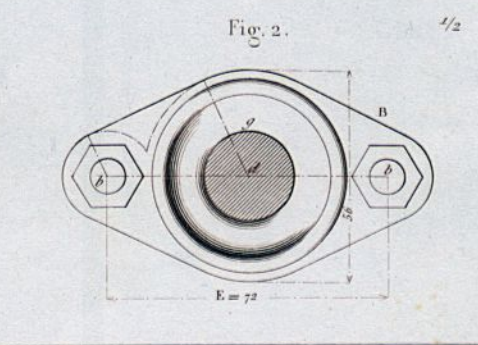
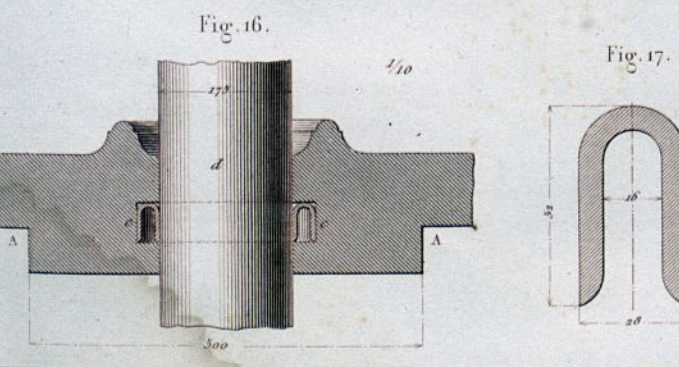
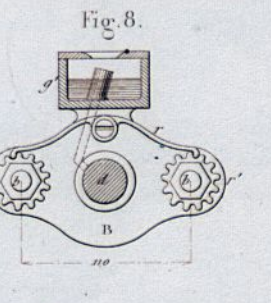
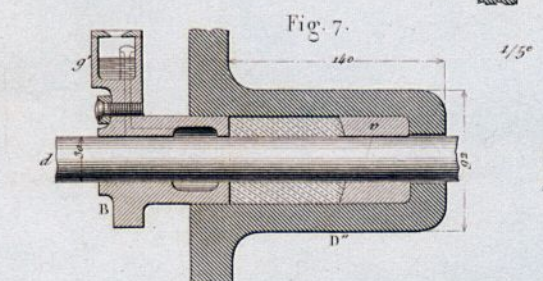
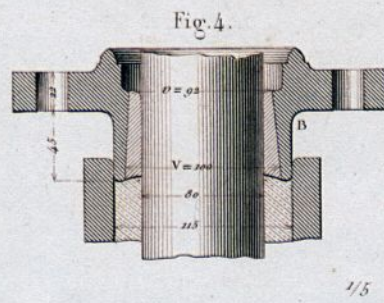
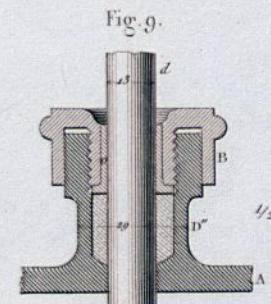
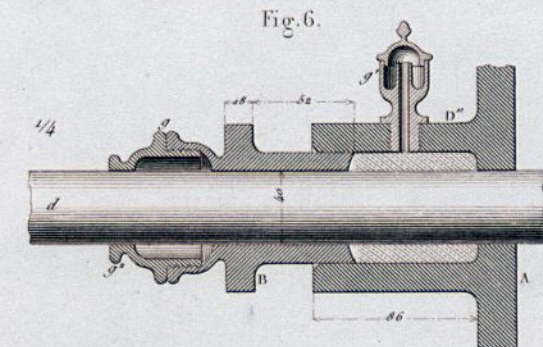
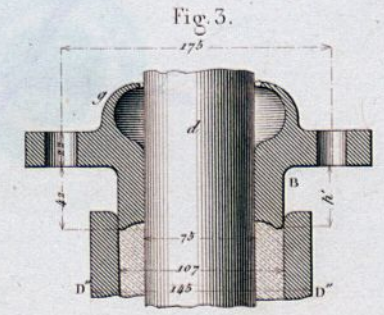
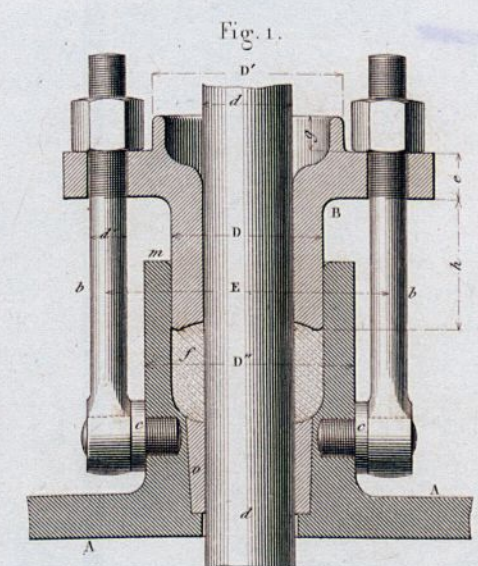
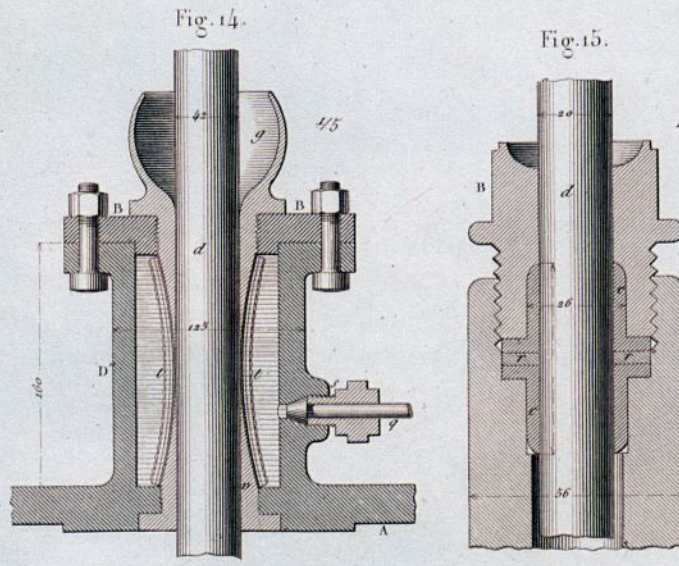
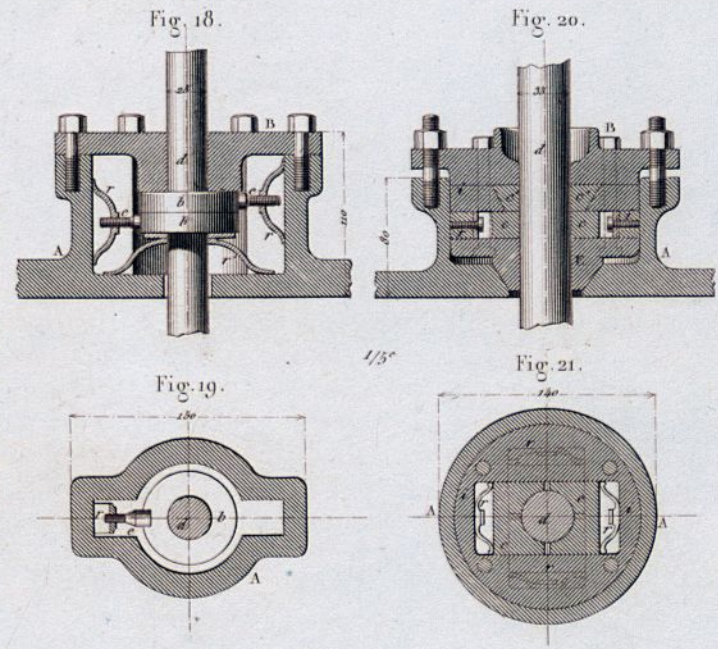
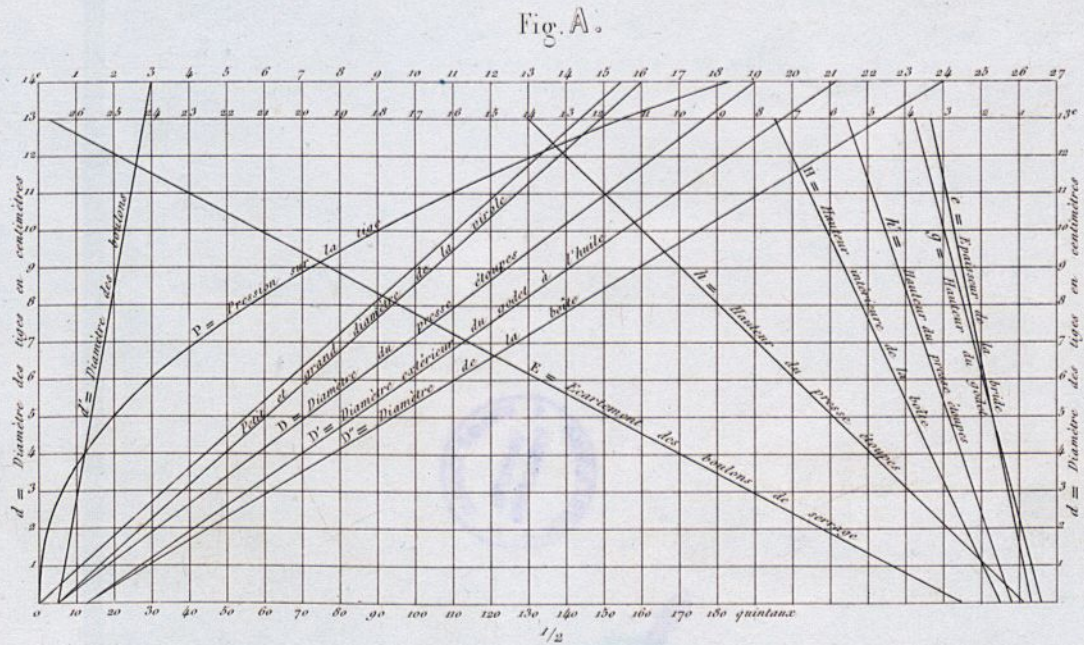
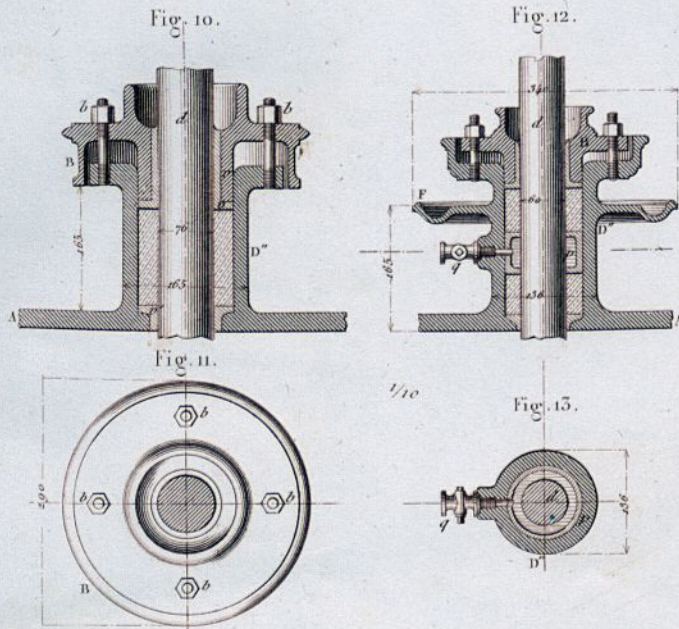
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Armengaud aîné.









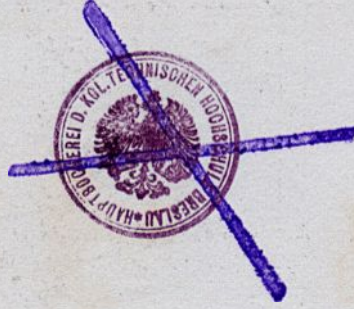
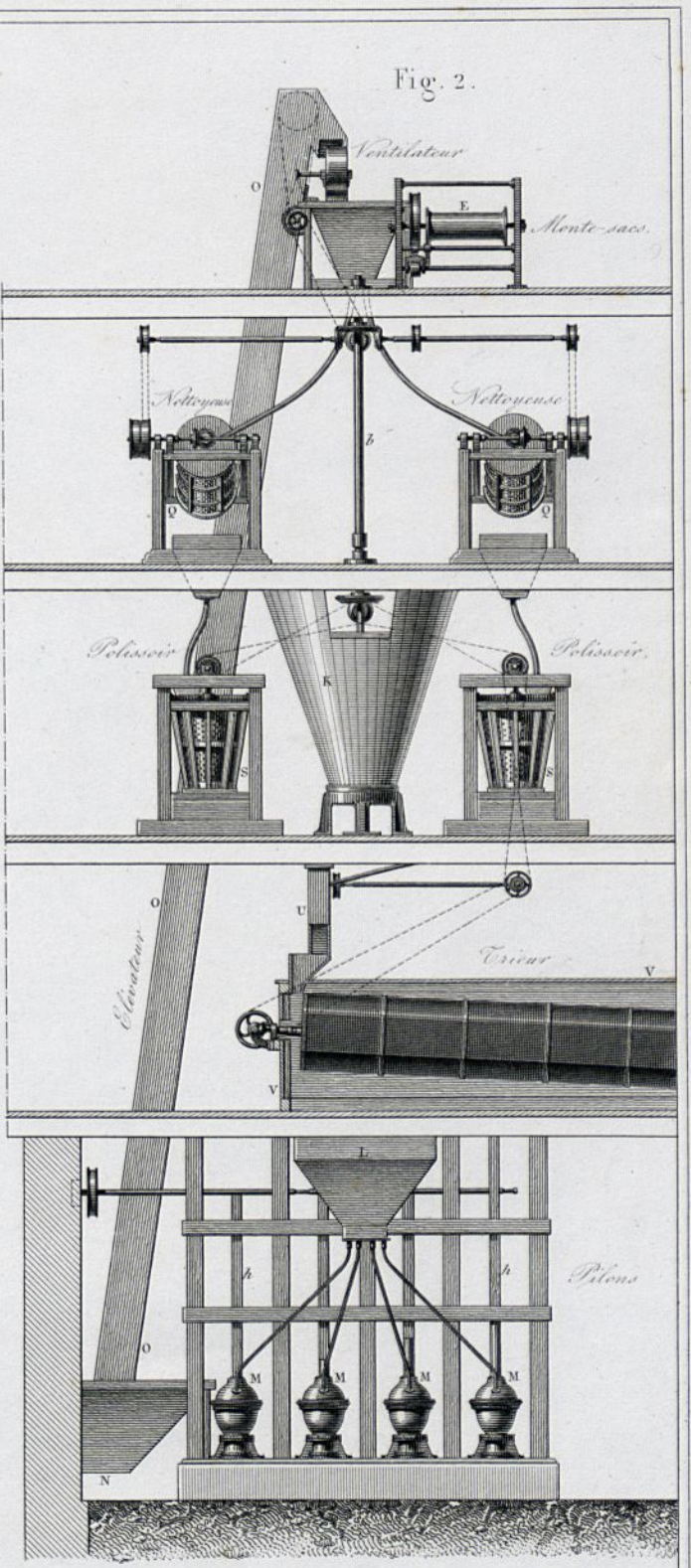
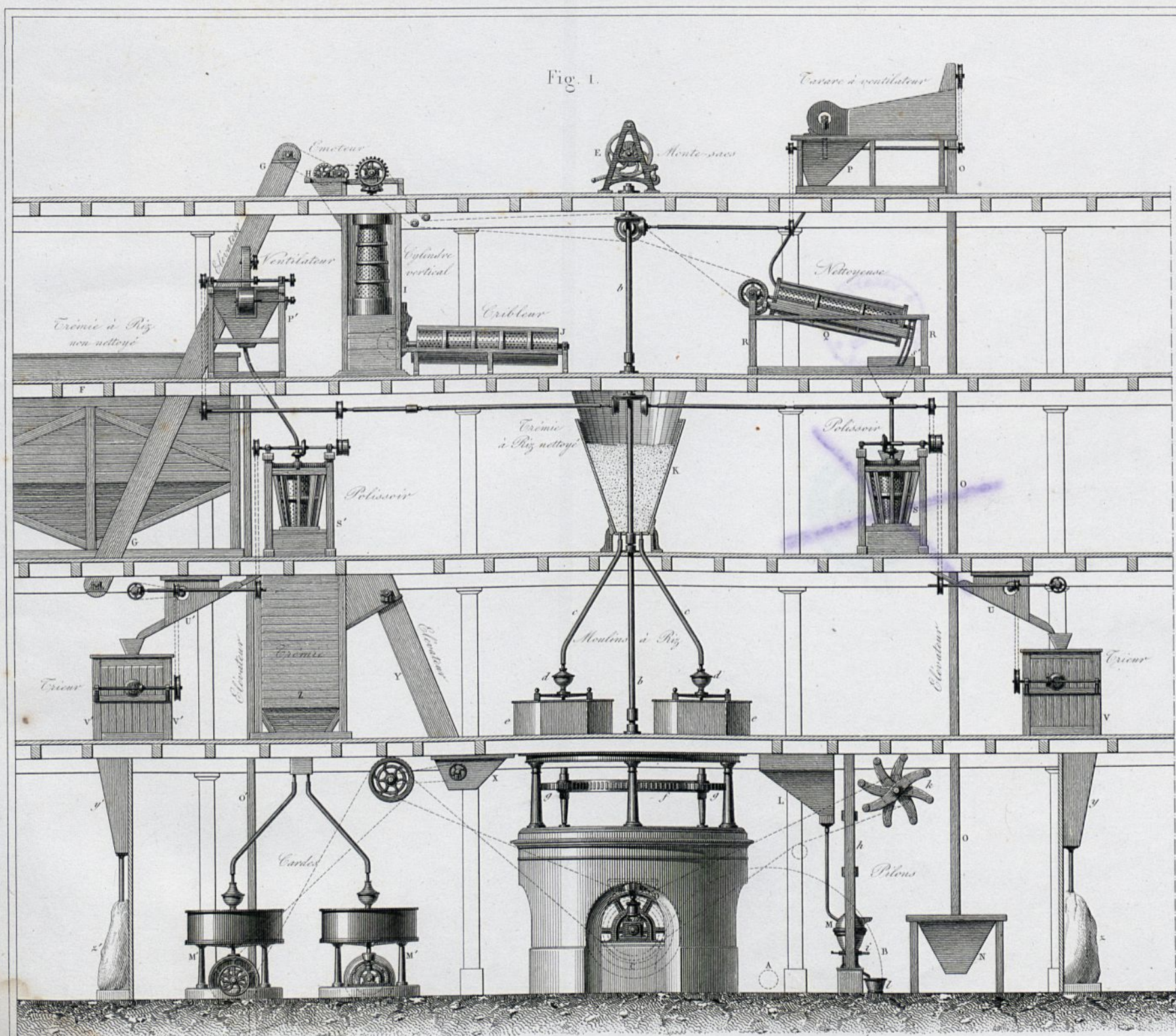


Fig. 1.

Fig. 2.



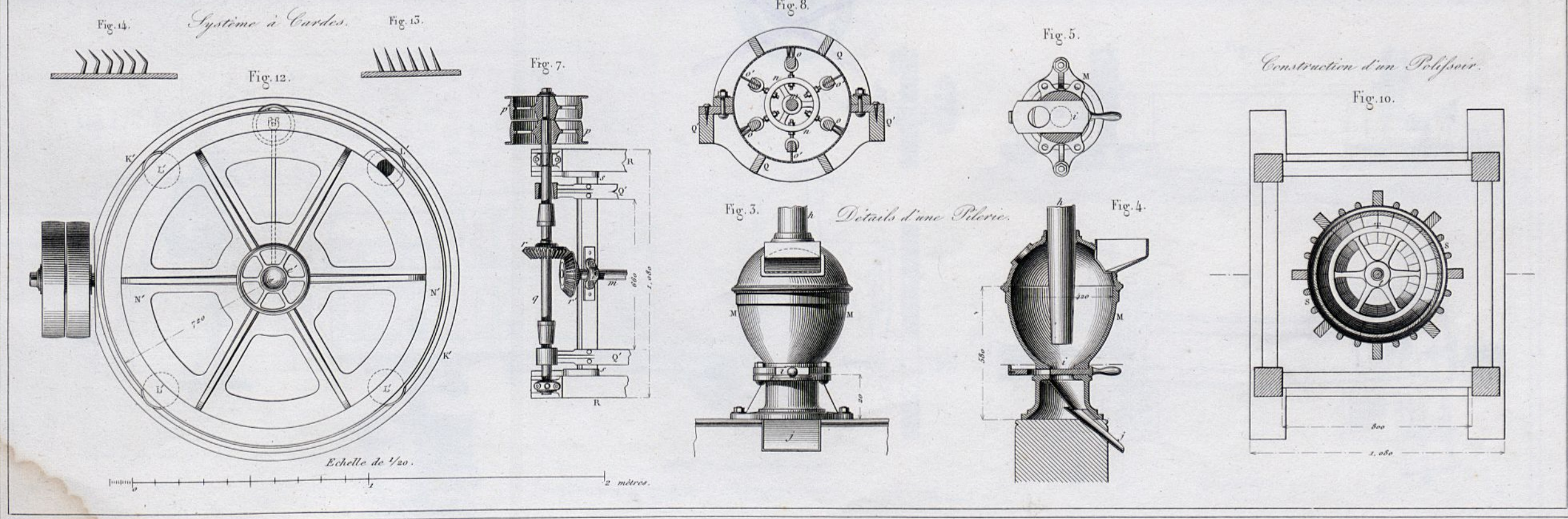
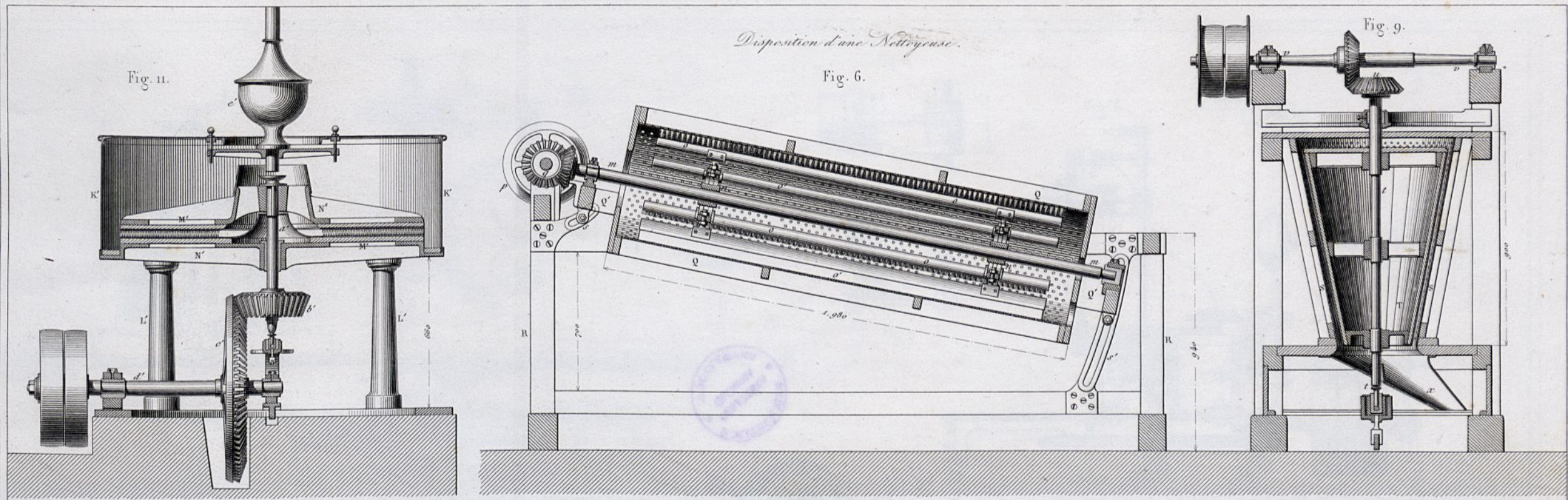
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Armengaud aîné.

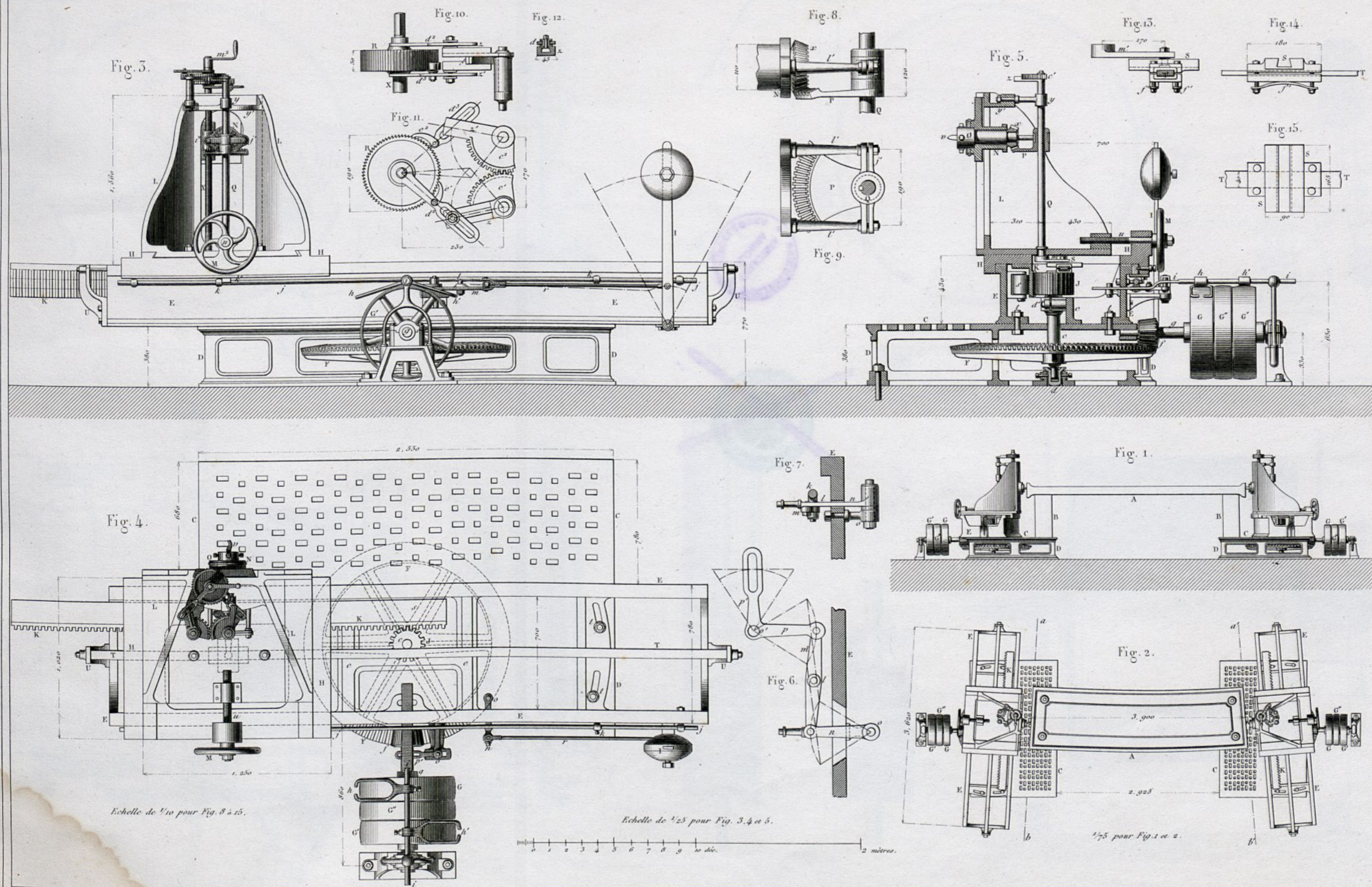
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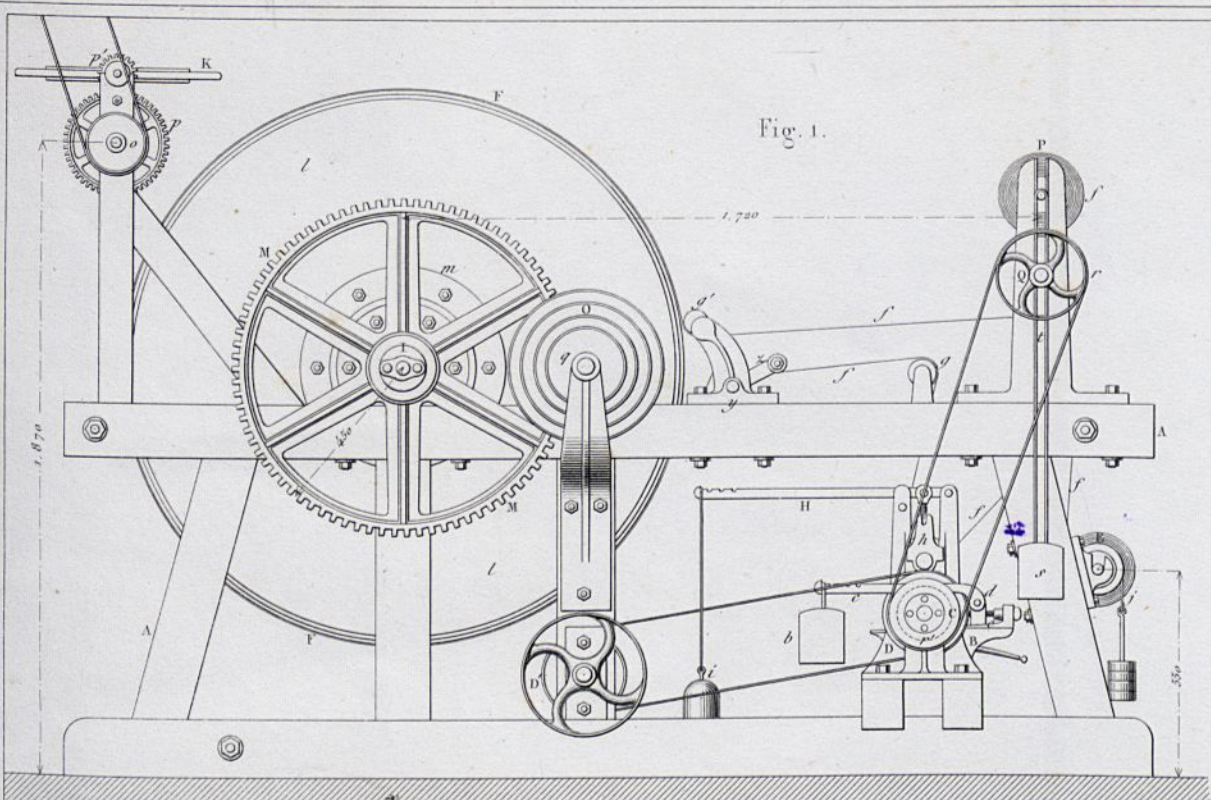


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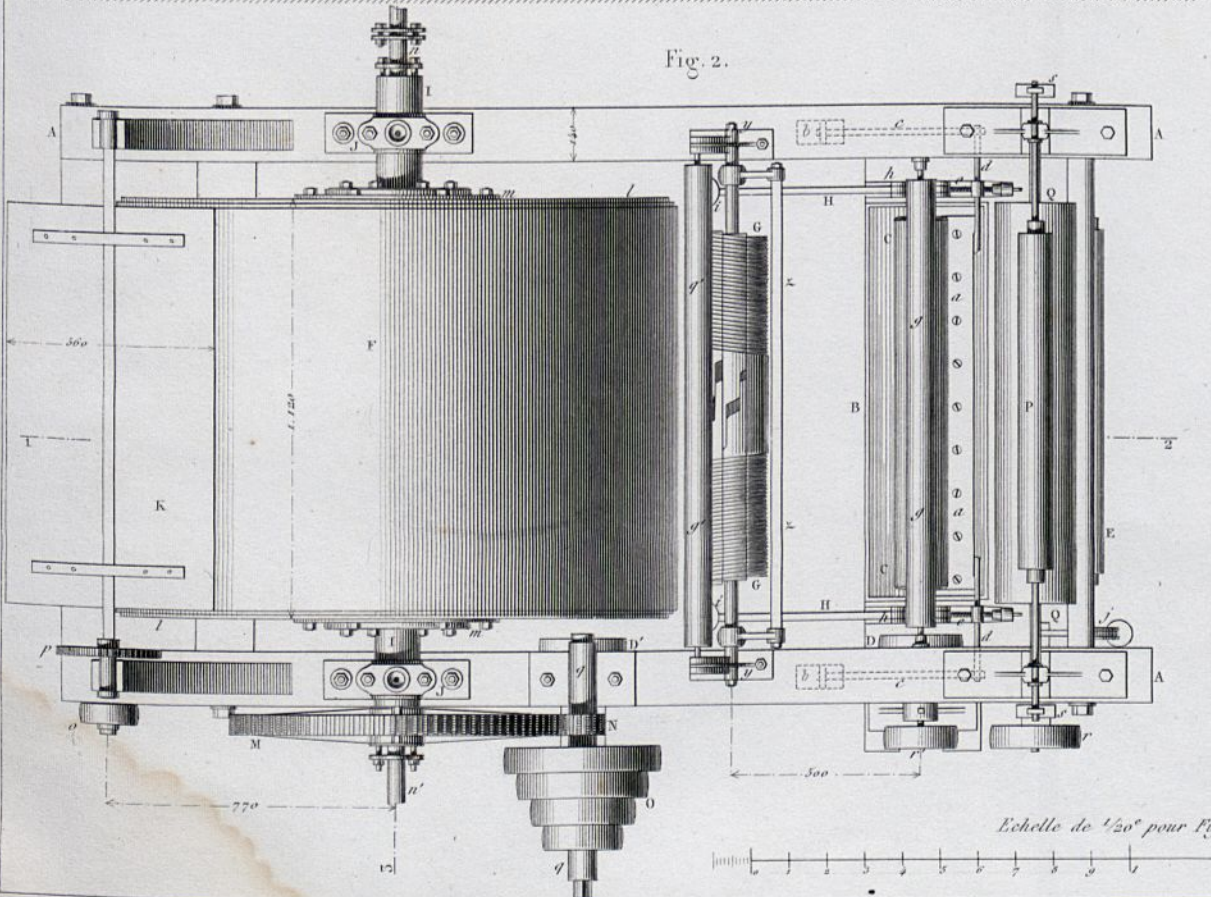


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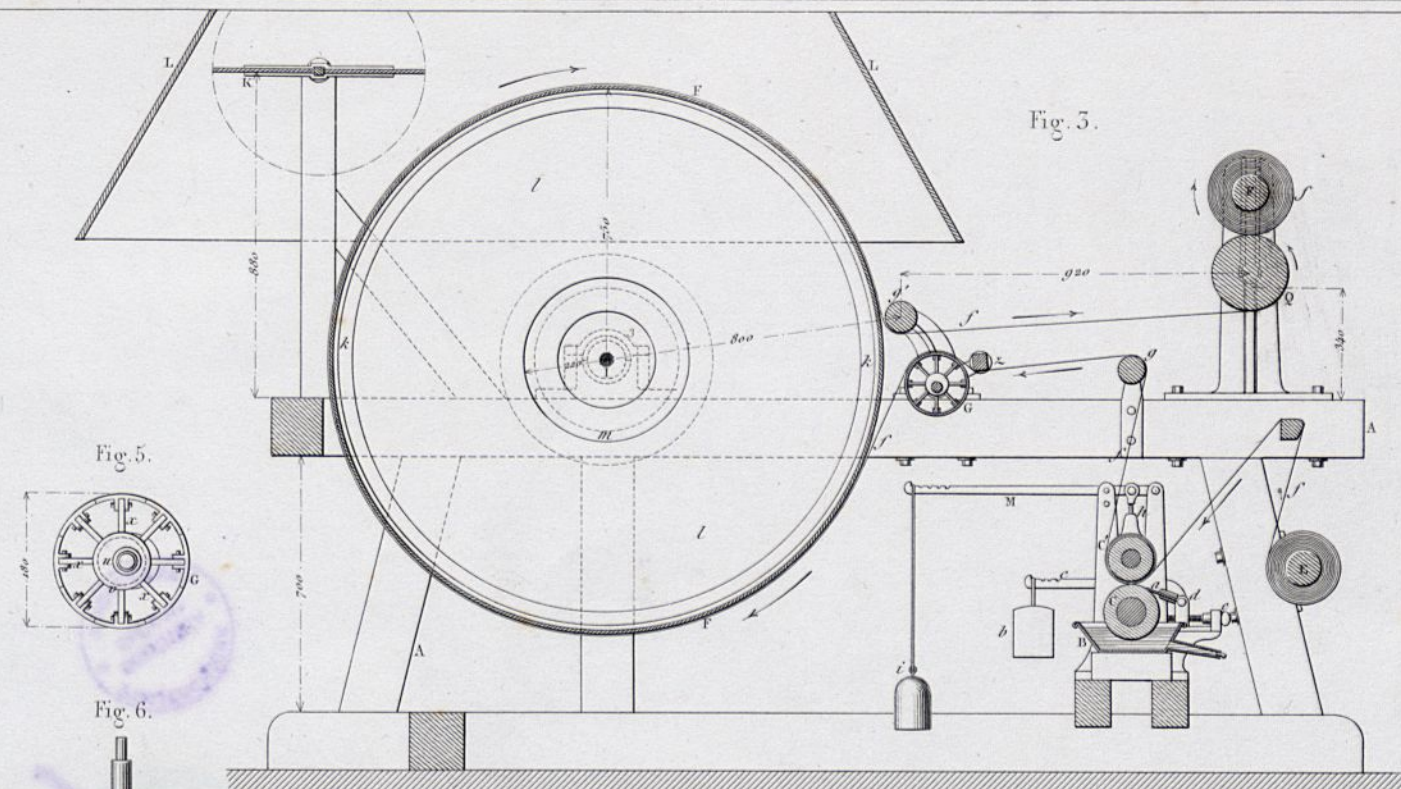


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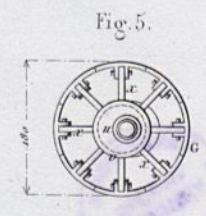


Fig. 5.

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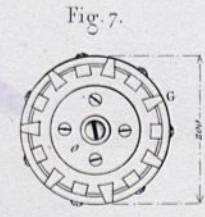
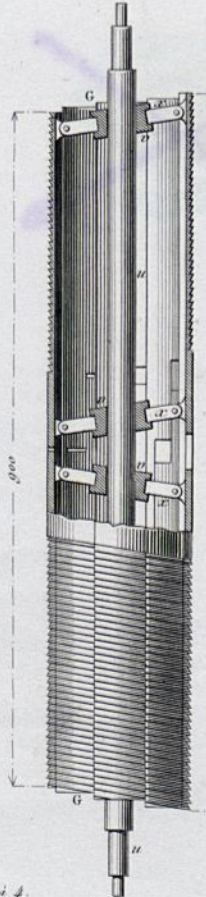


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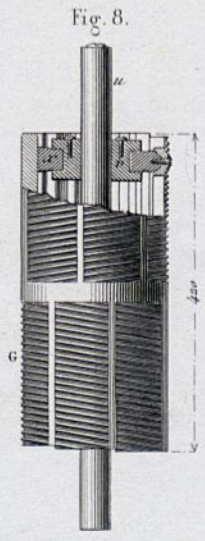


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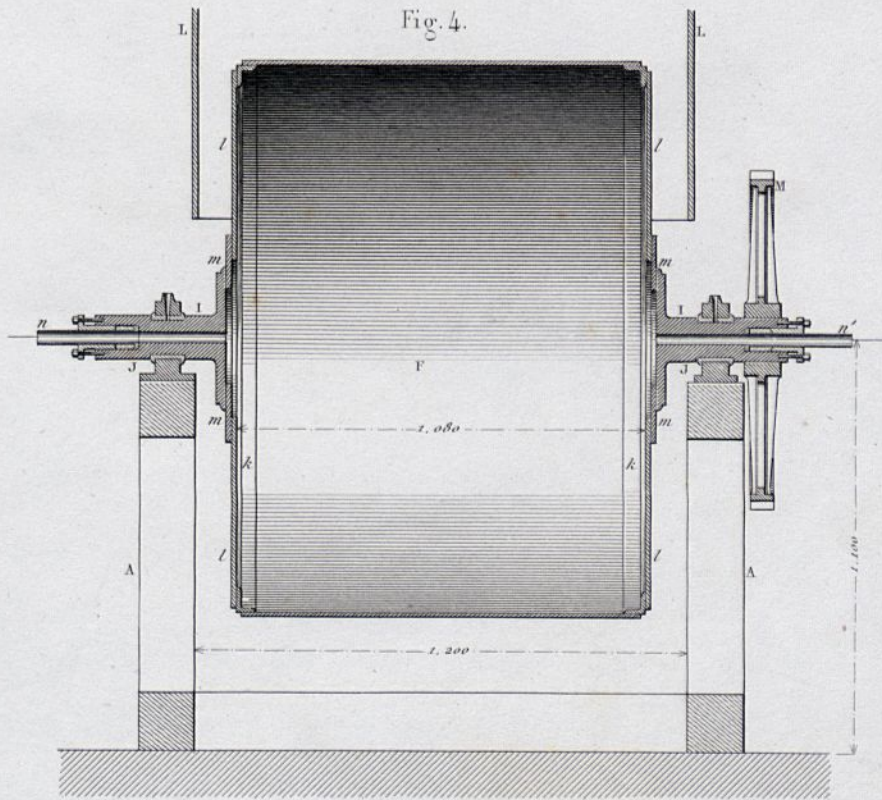


Fig. 4.

Echelle de 1/20<sup>e</sup> pour Fig. 1 à 4.

2 mètres.



*Le Chamois.*

*Elevation.*

Fig. 1.

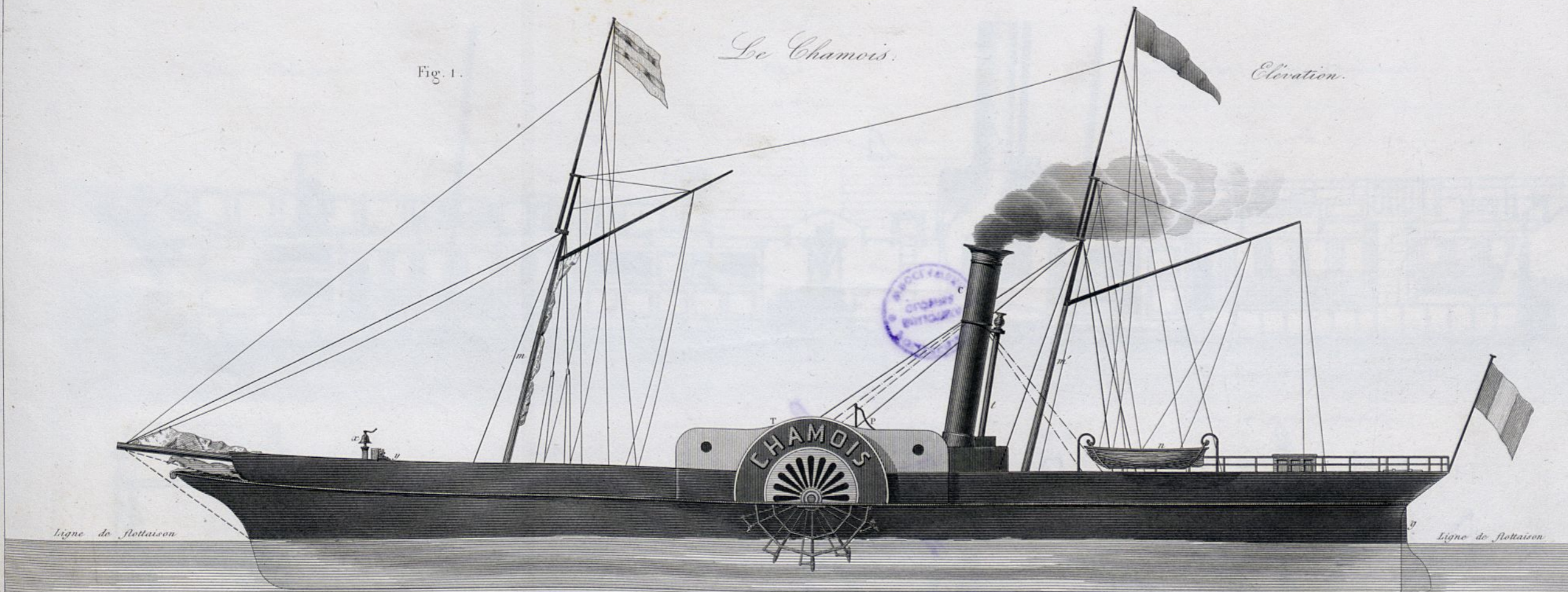


Fig. 2.

*Plan général vu en dessus.*

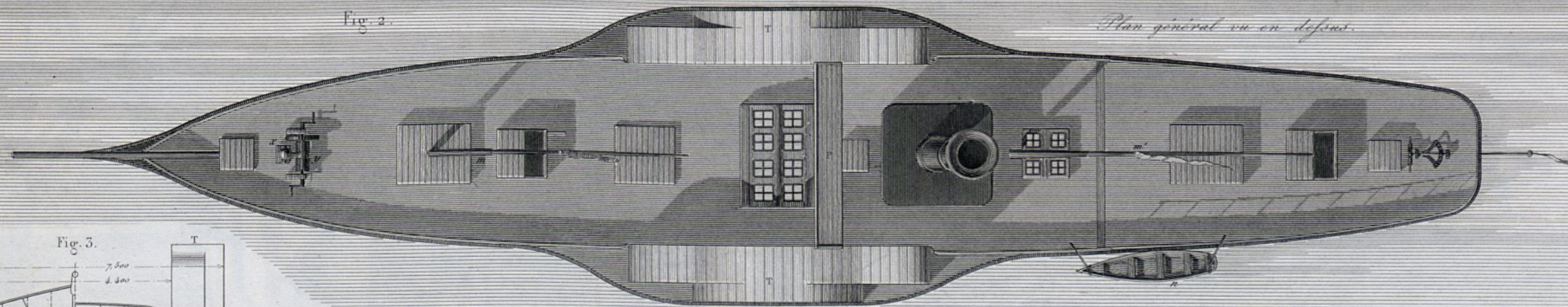
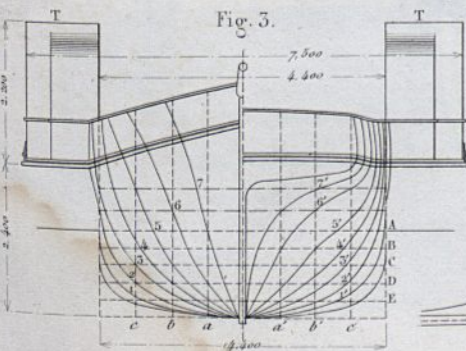
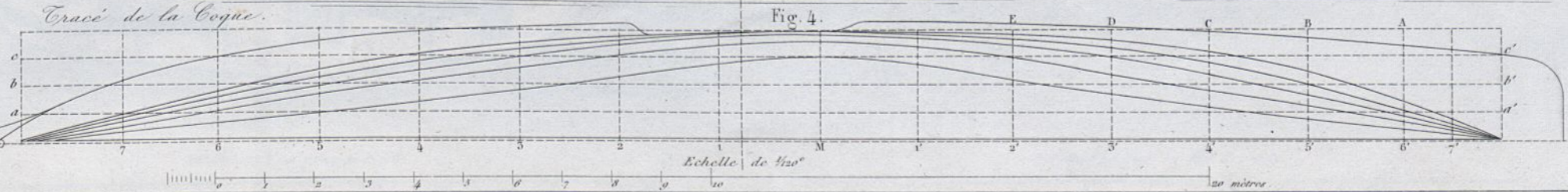


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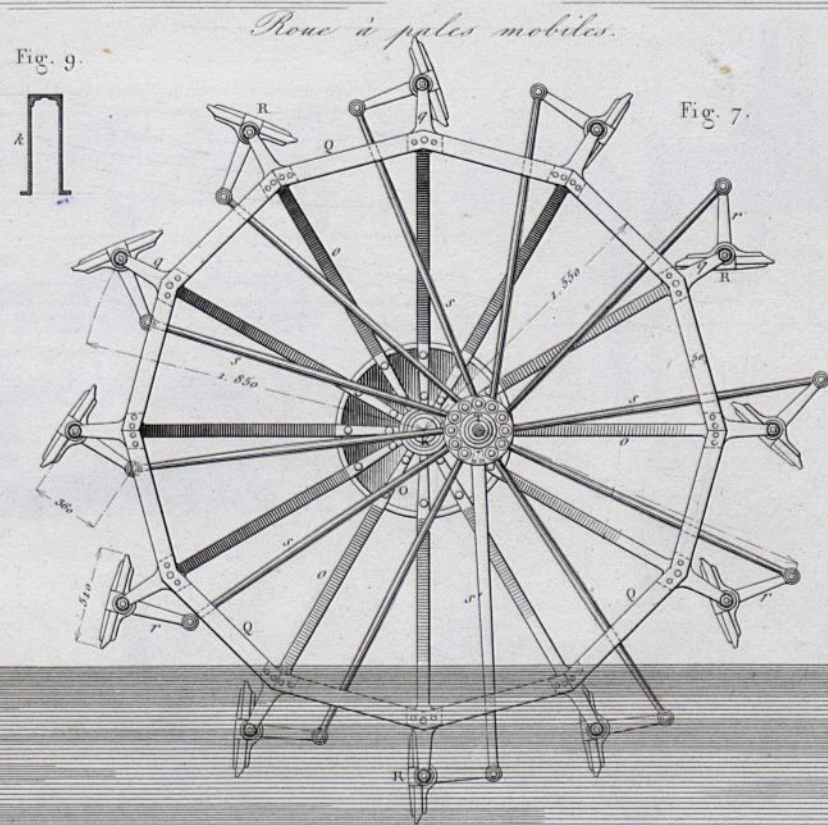
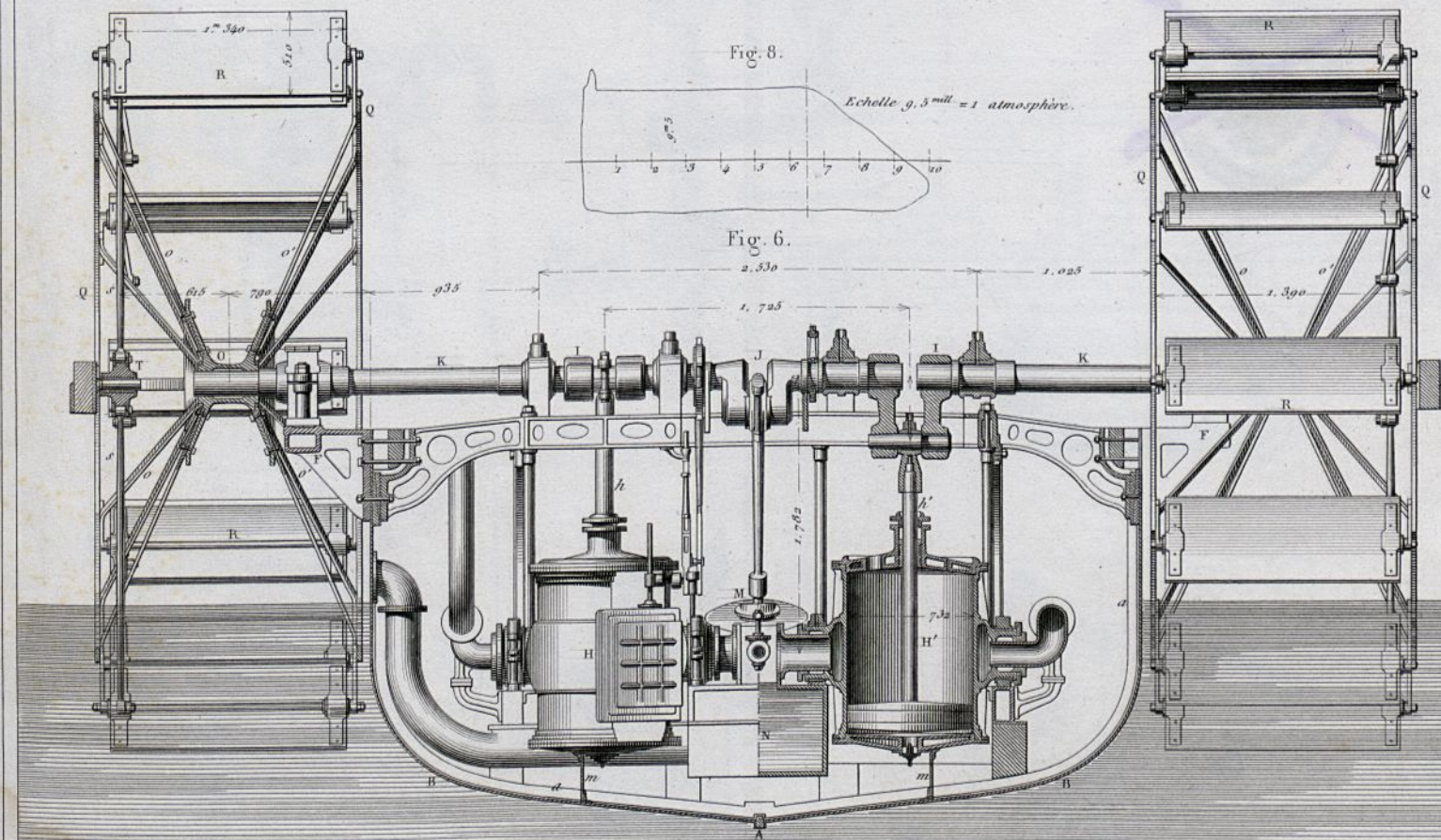
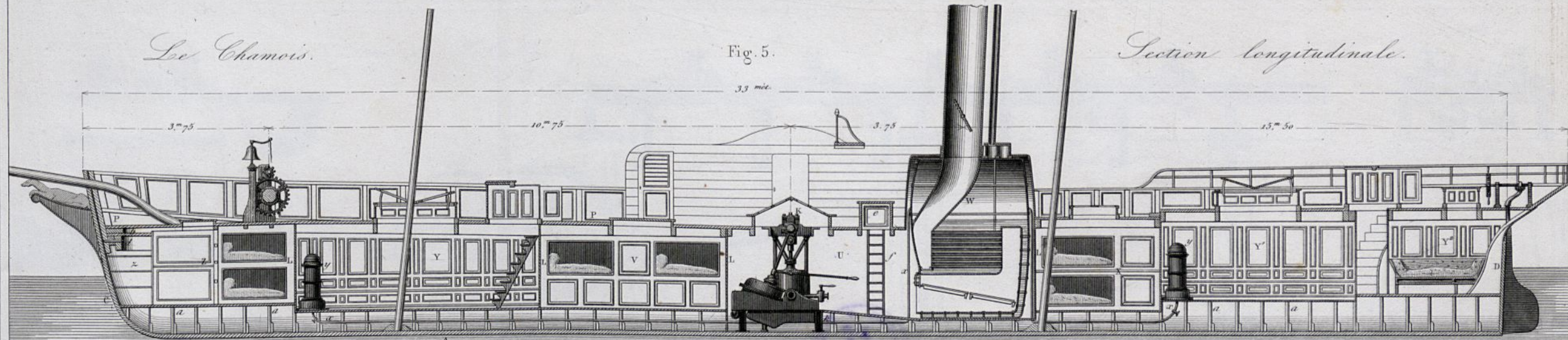
*Tracé de la Coque.*

Fig. 4.





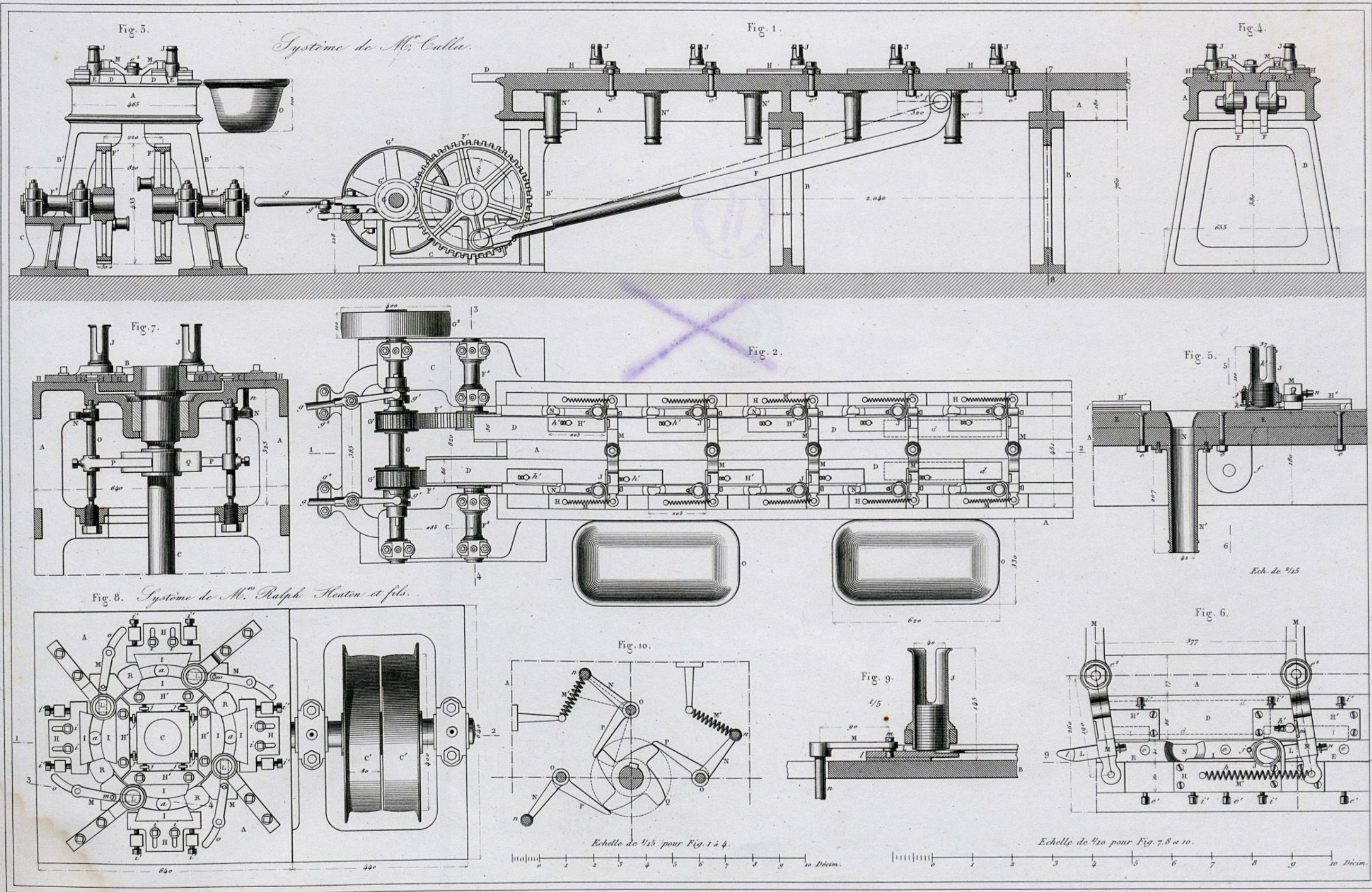




Echelle de 1/100 pour la Fig. 5.

Echelle 1/40 pour les Fig. 6, 7 et 9.











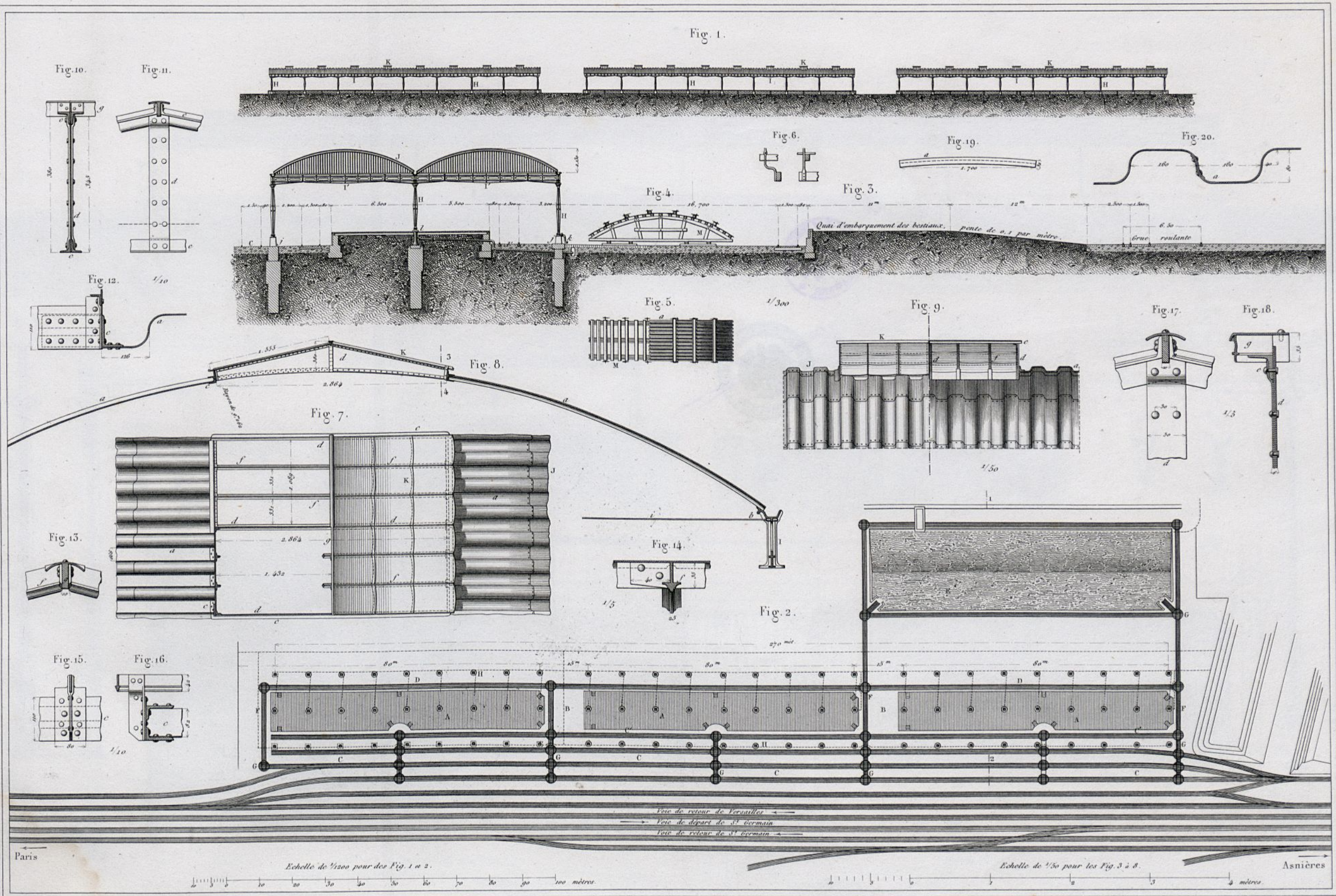






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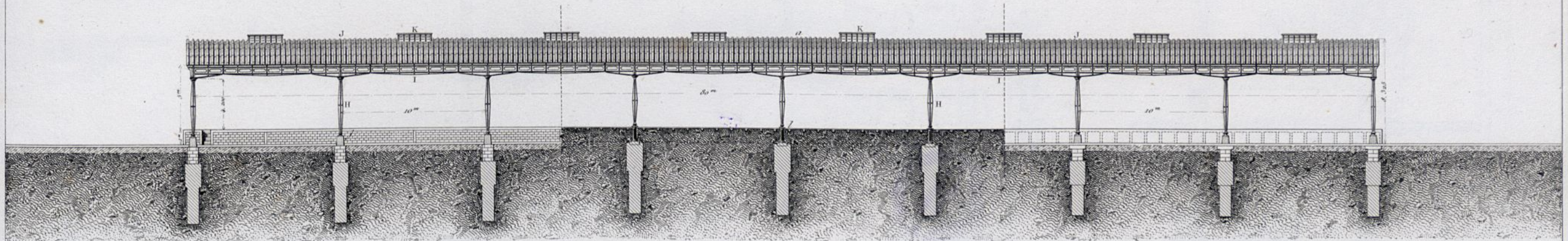


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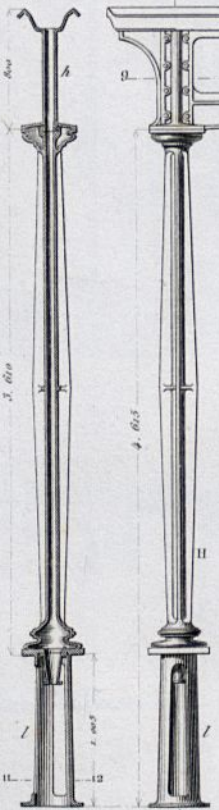


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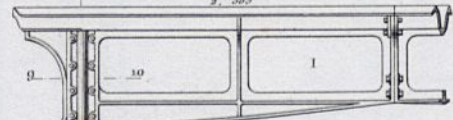


Fig. 58.



Fig. 57.

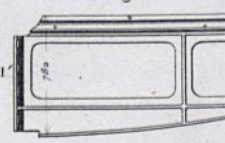


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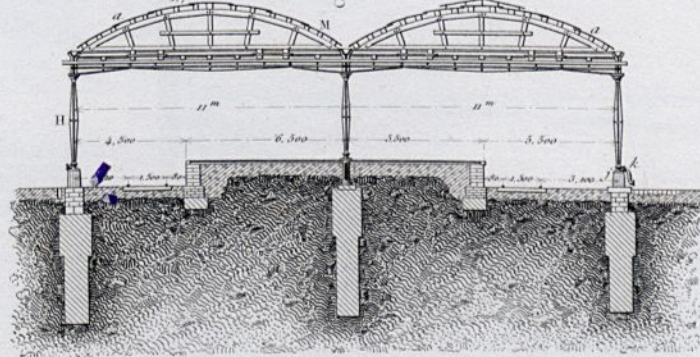


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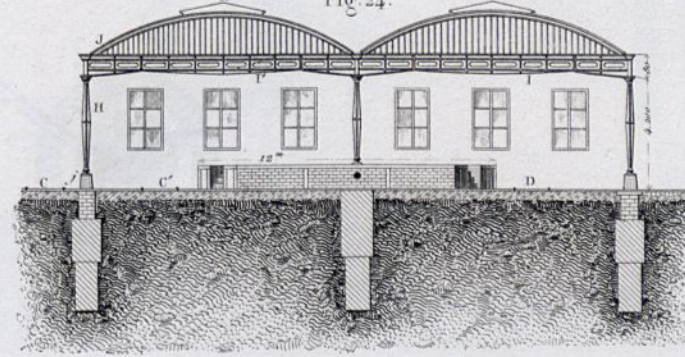


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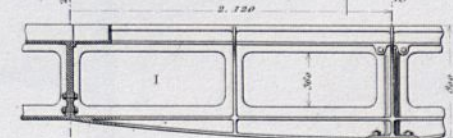


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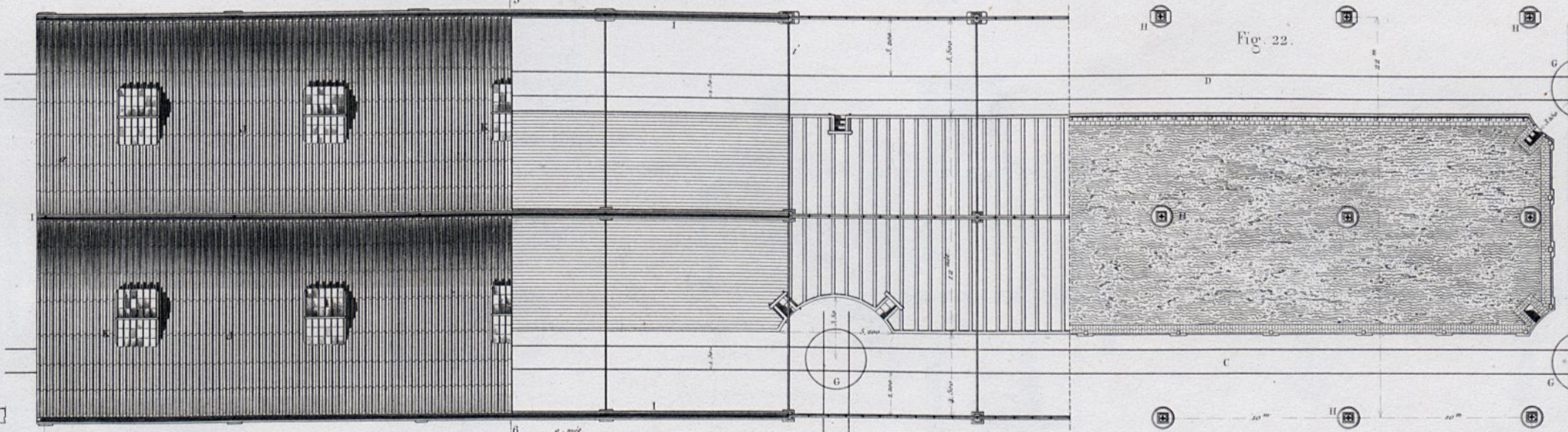
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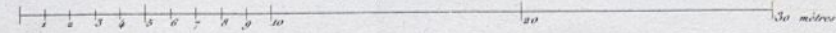
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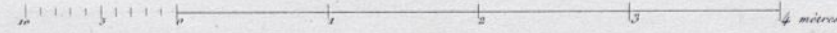
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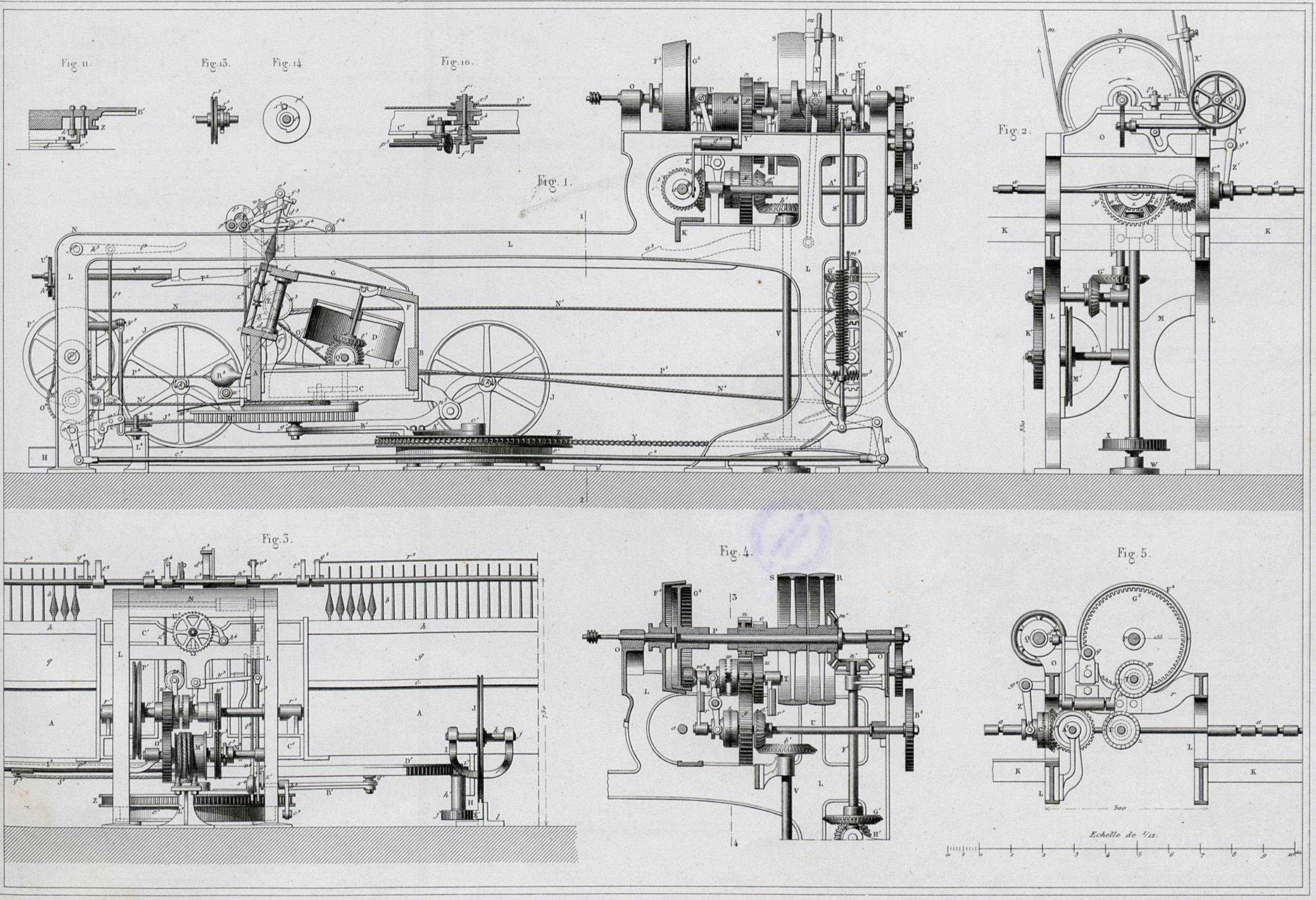
Echelle de 1/300 pour les Fig. 21, 22 et 23.



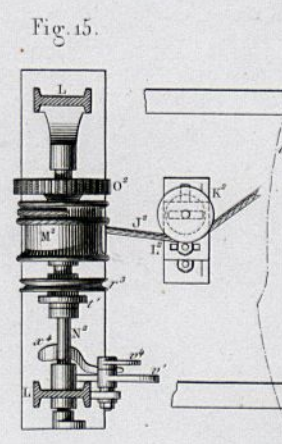
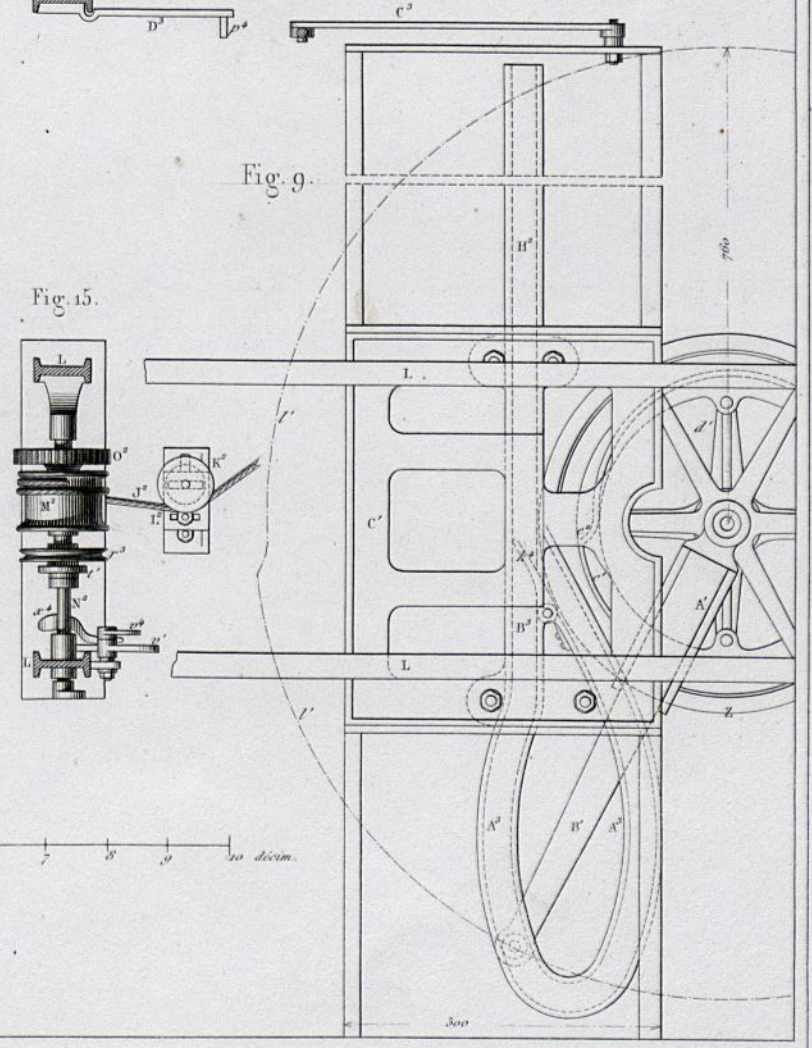
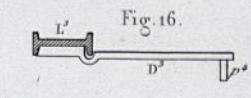
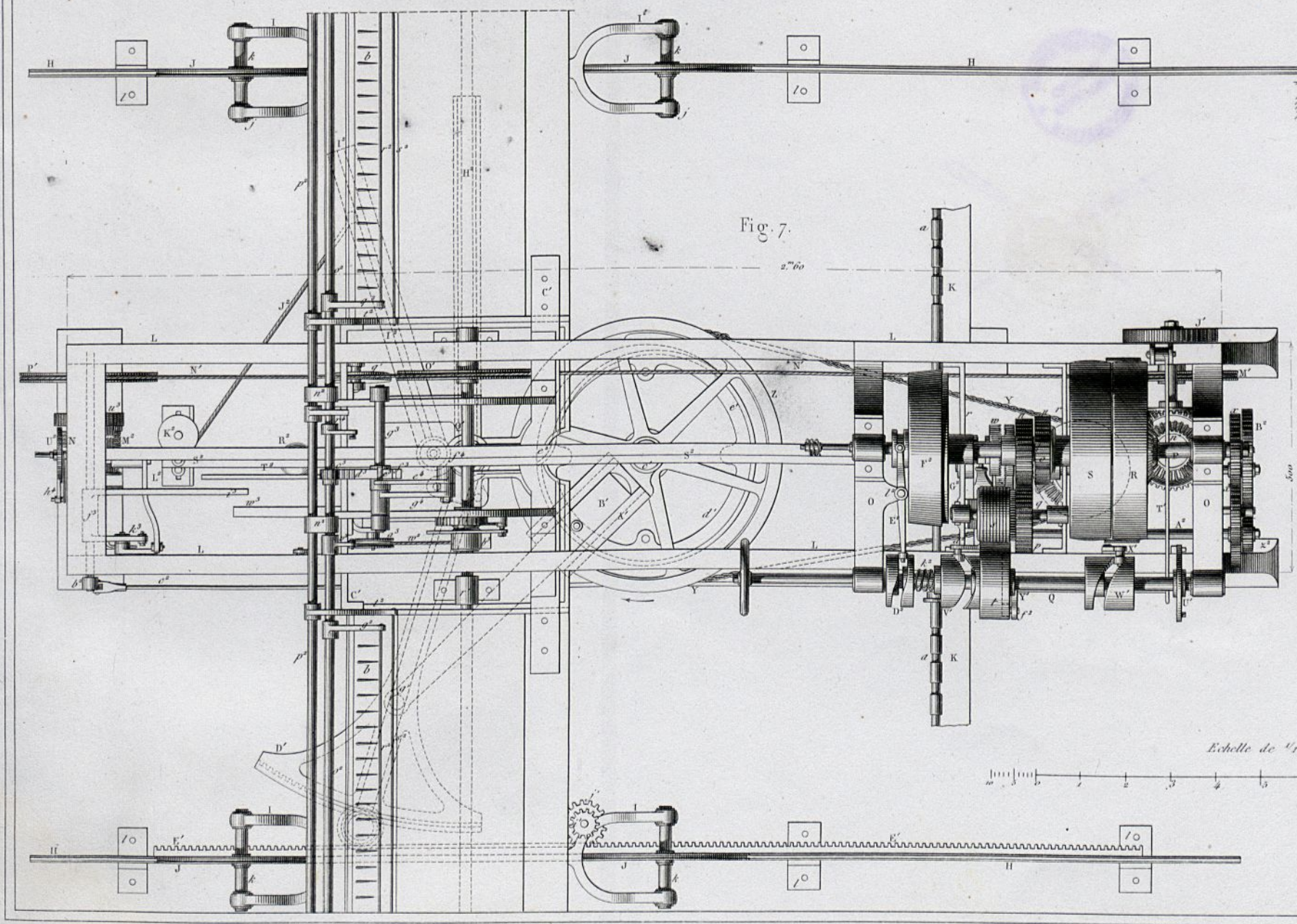
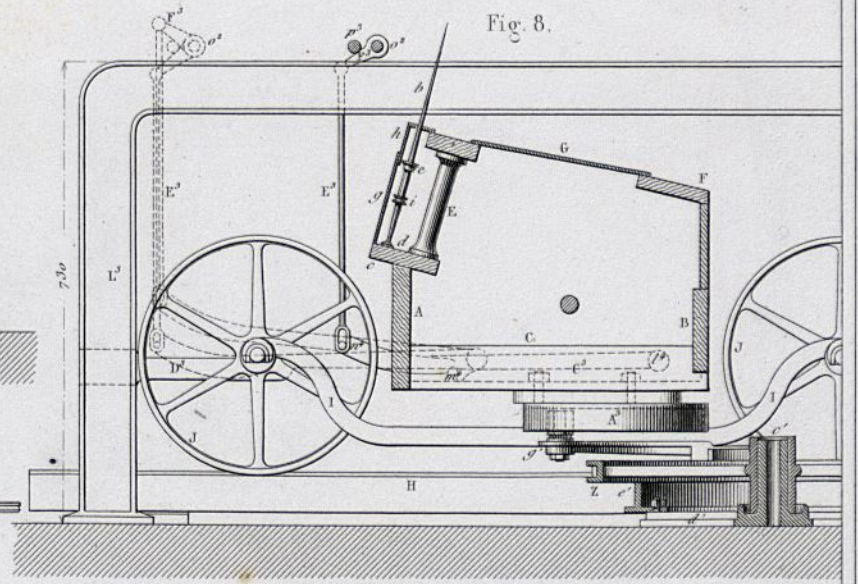
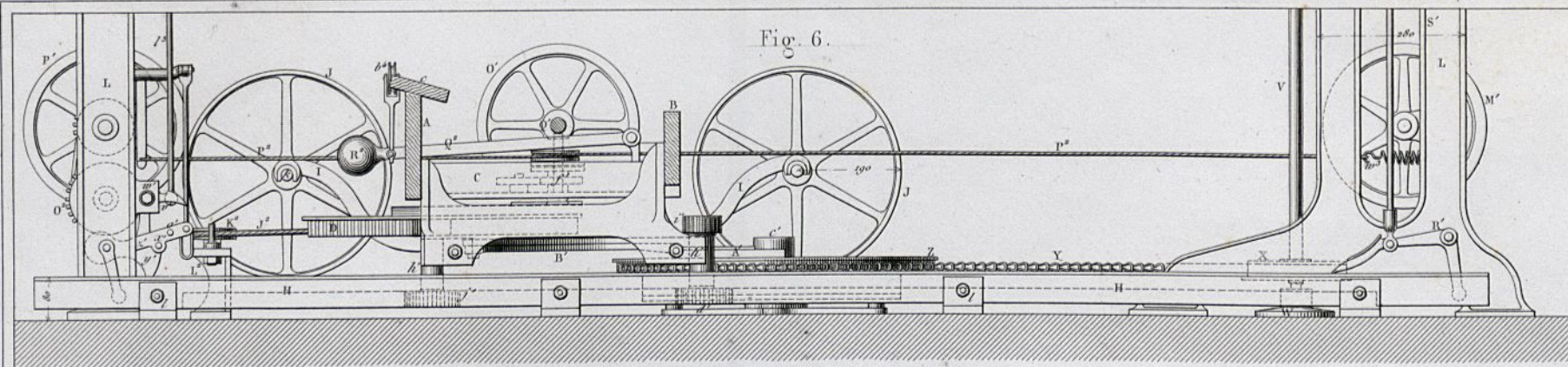
Echelle de 1/50 pour les Fig. 24 à 35.





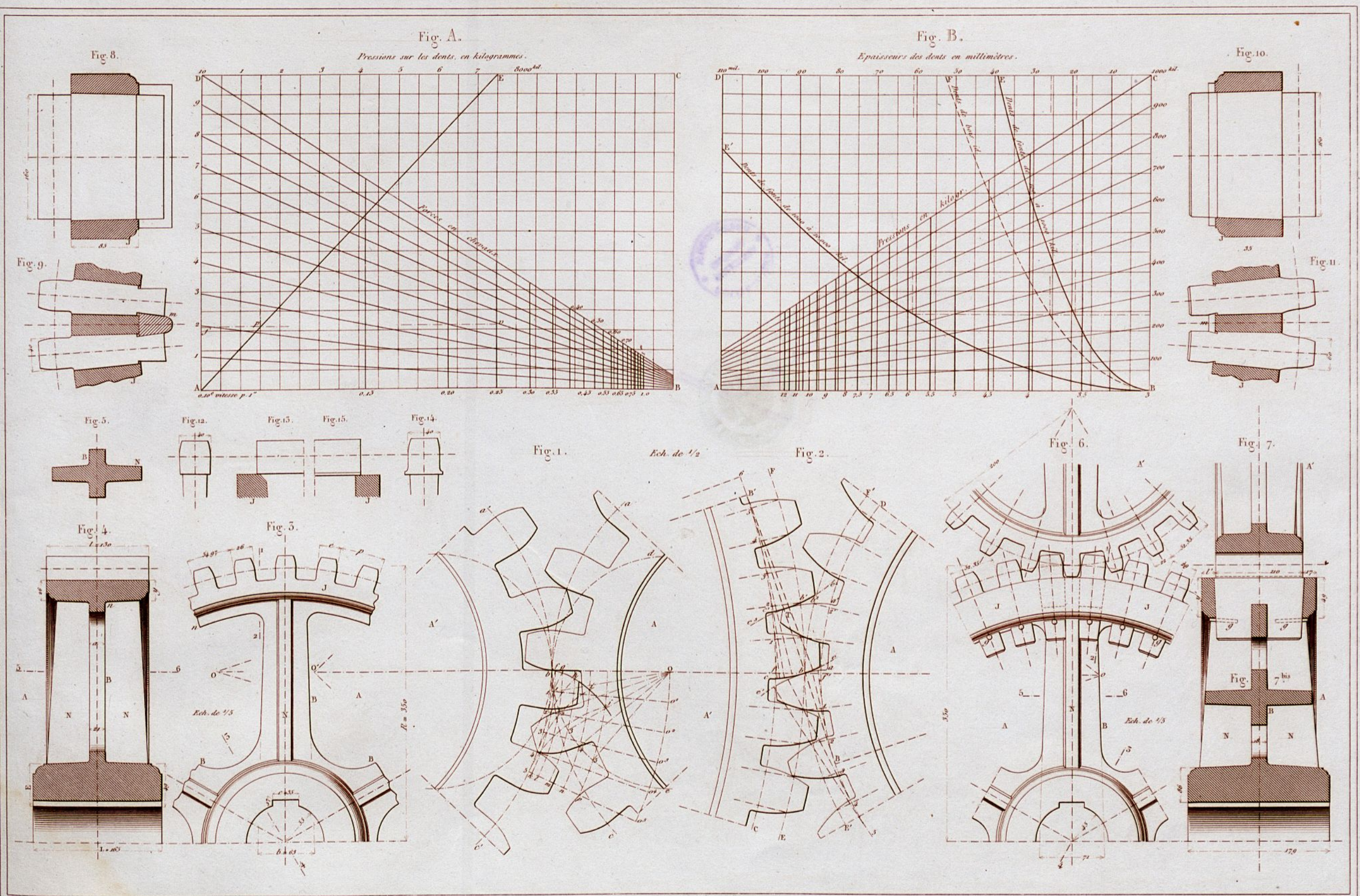






Echelle de 1/2<sup>e</sup>.  
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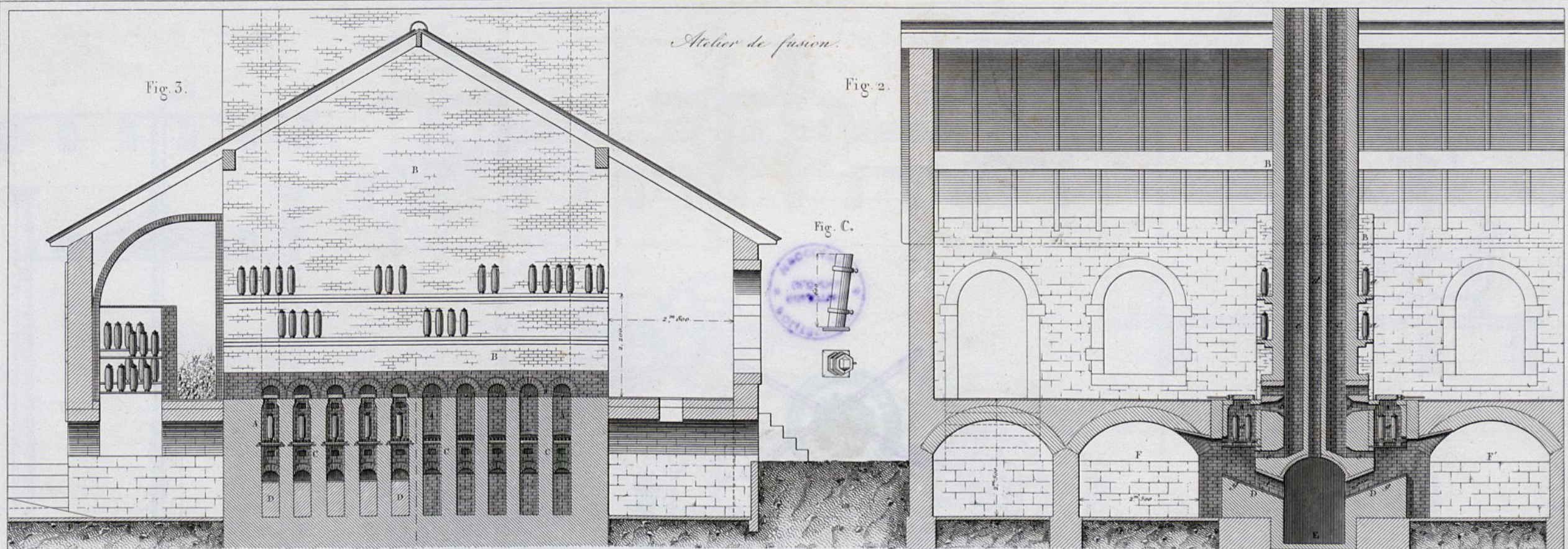








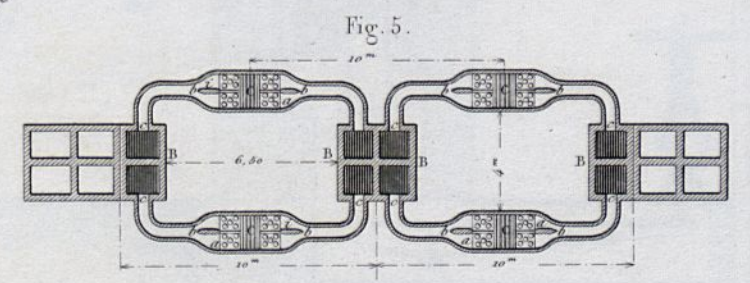
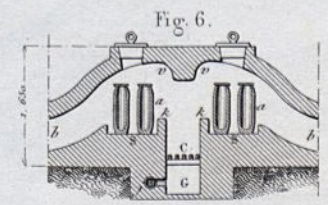
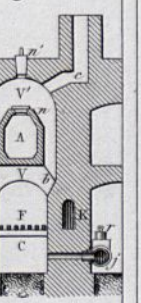
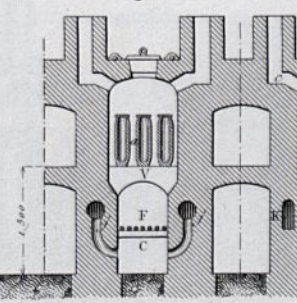
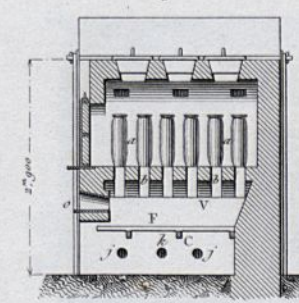
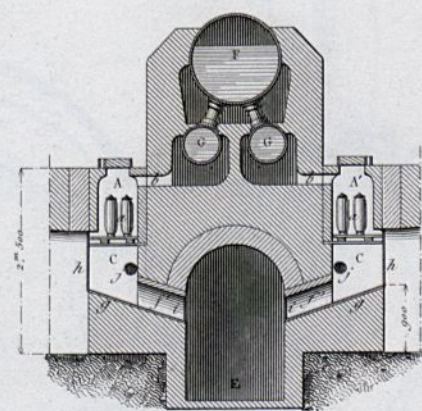
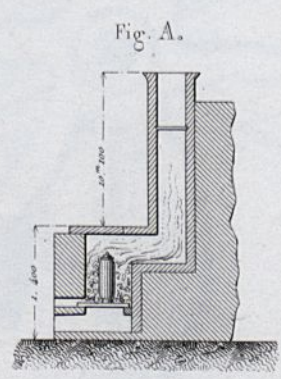
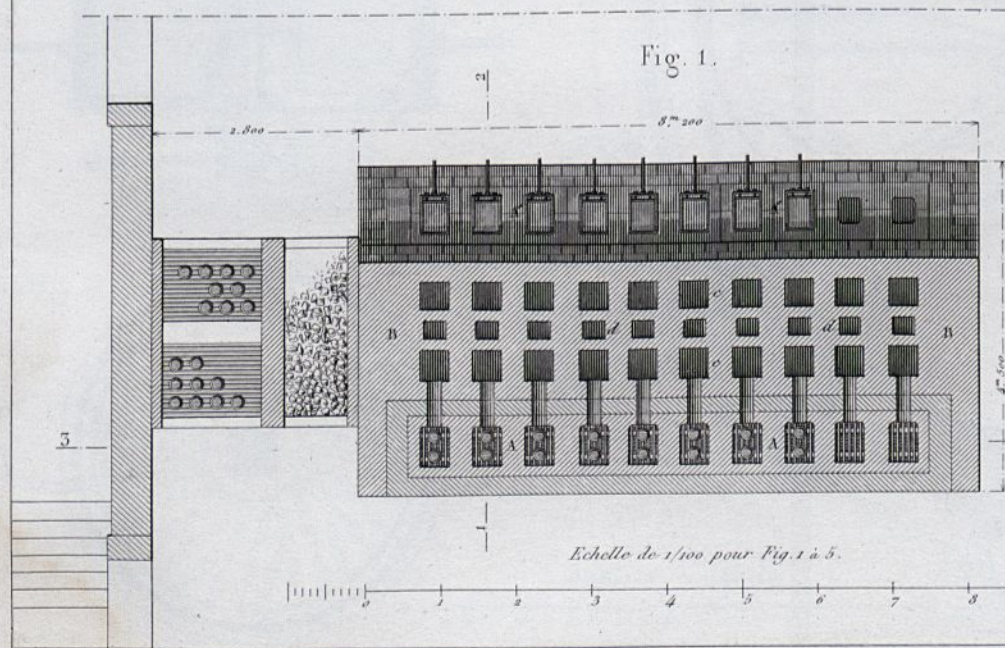




*Système perfectionné à doubles fonderies.*

*Ancien système.*

*Fours marchant à air comprimé.*





*Système de M. Darblay.*

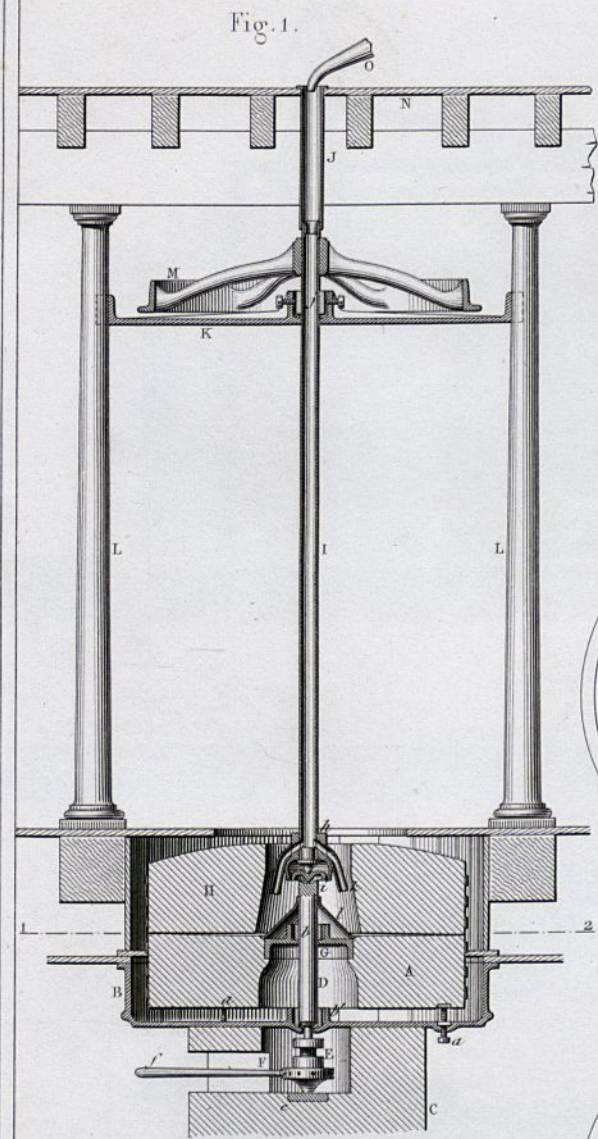


Fig. 2.

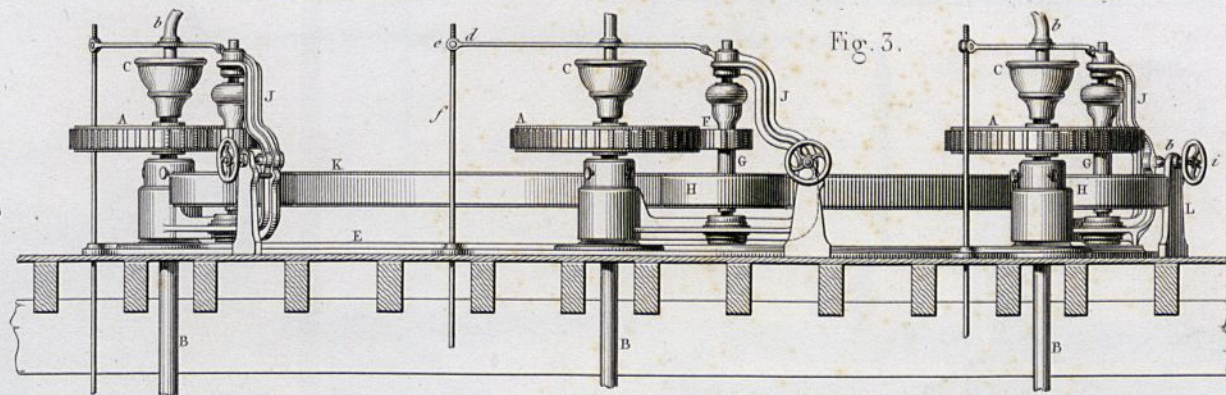
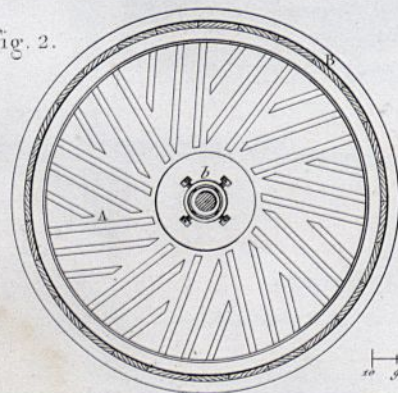
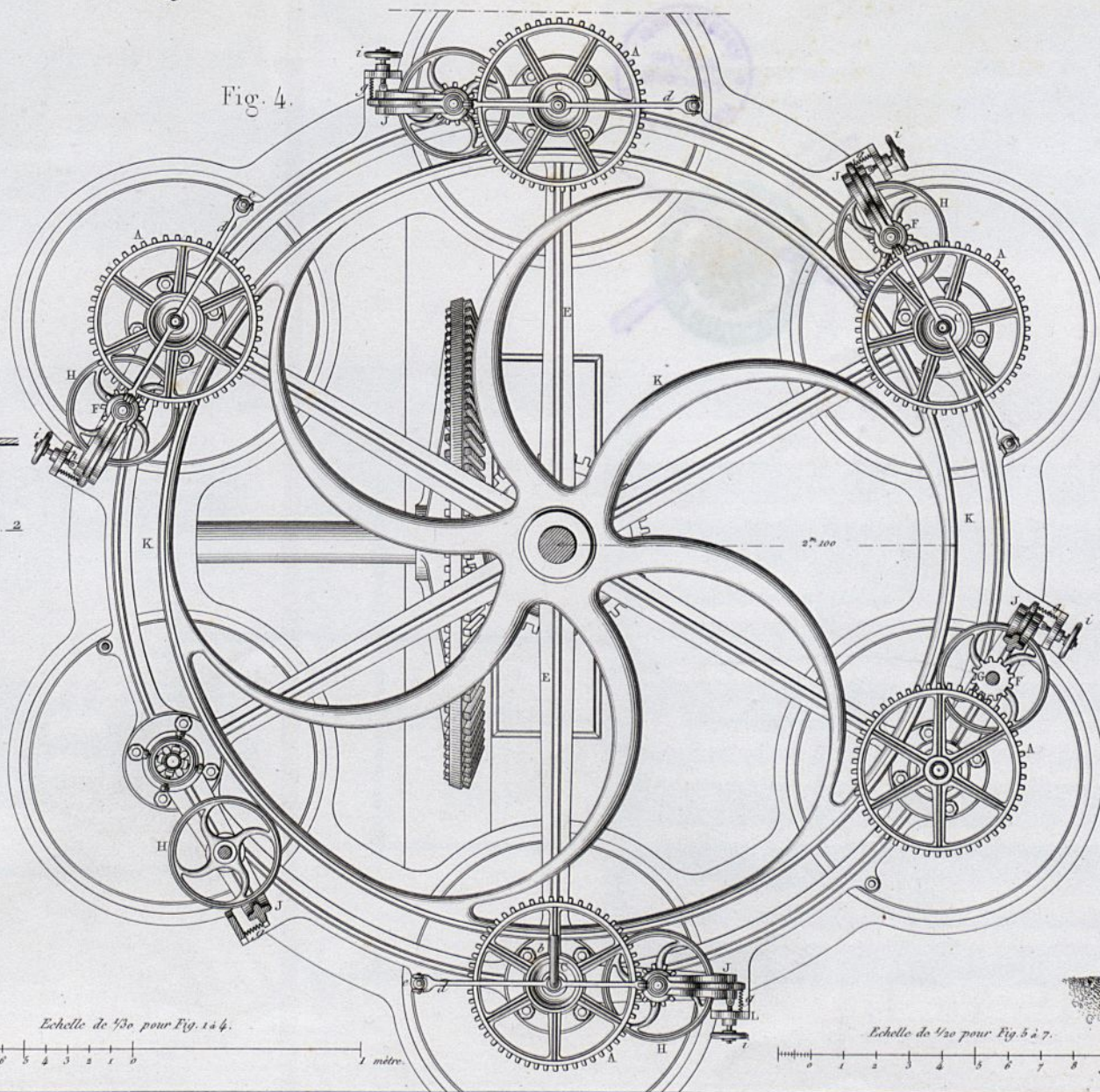
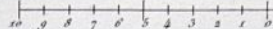


Fig. 3.

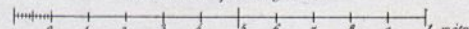
Fig. 4.



Echelle de 1/30 pour Fig. 1 & 4.



Echelle de 1/50 pour Fig. 5 à 7.



*Système à vitesse accélérée par M. M. Froment, Fontaine et Brault.*

Fig. 5.

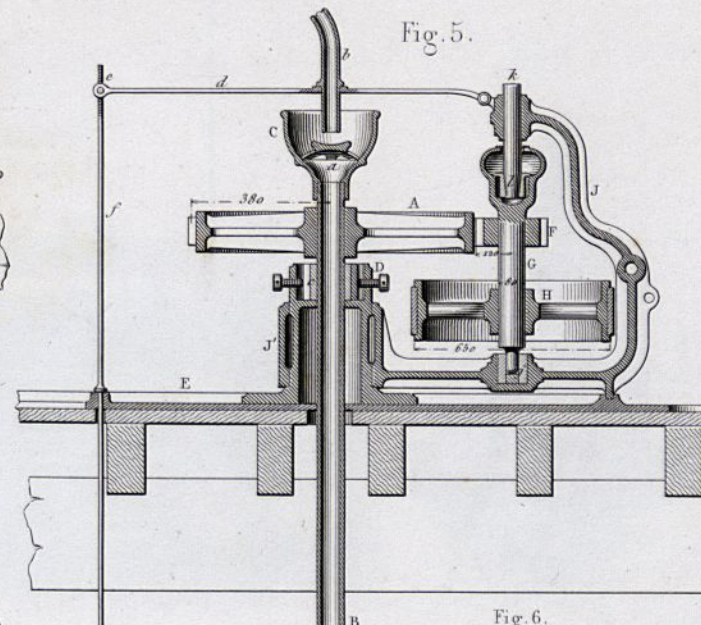
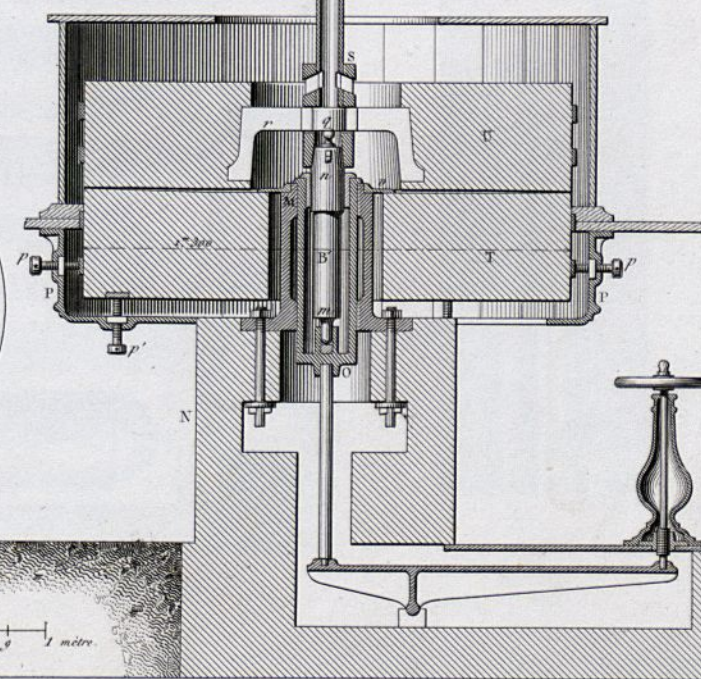


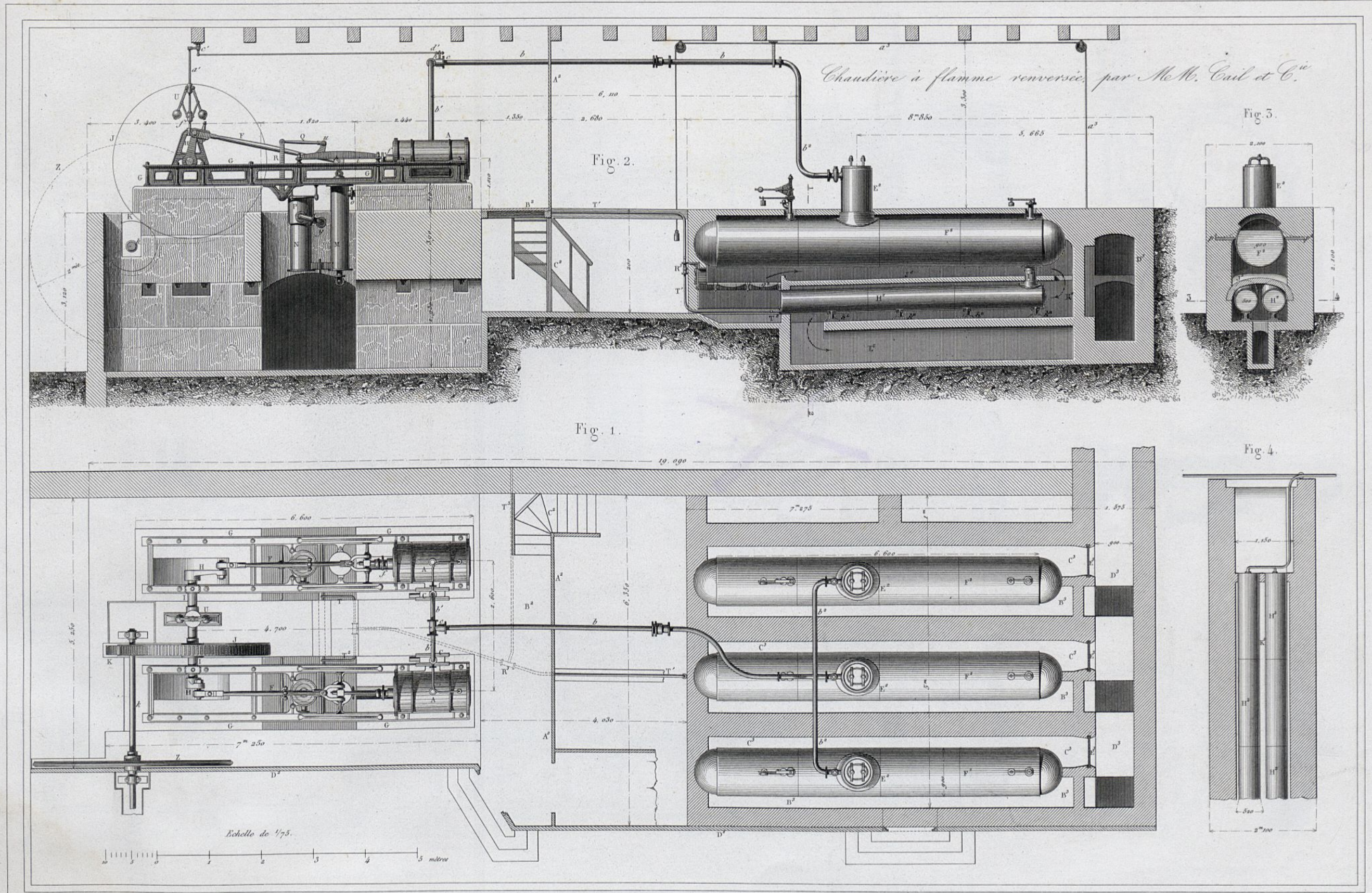
Fig. 6.



Fig. 7.







J. Petitcolin sculp.

Imp. de F. Chardon aîné r. Hautefeuille, 30. Paris

Armengaud aîné.





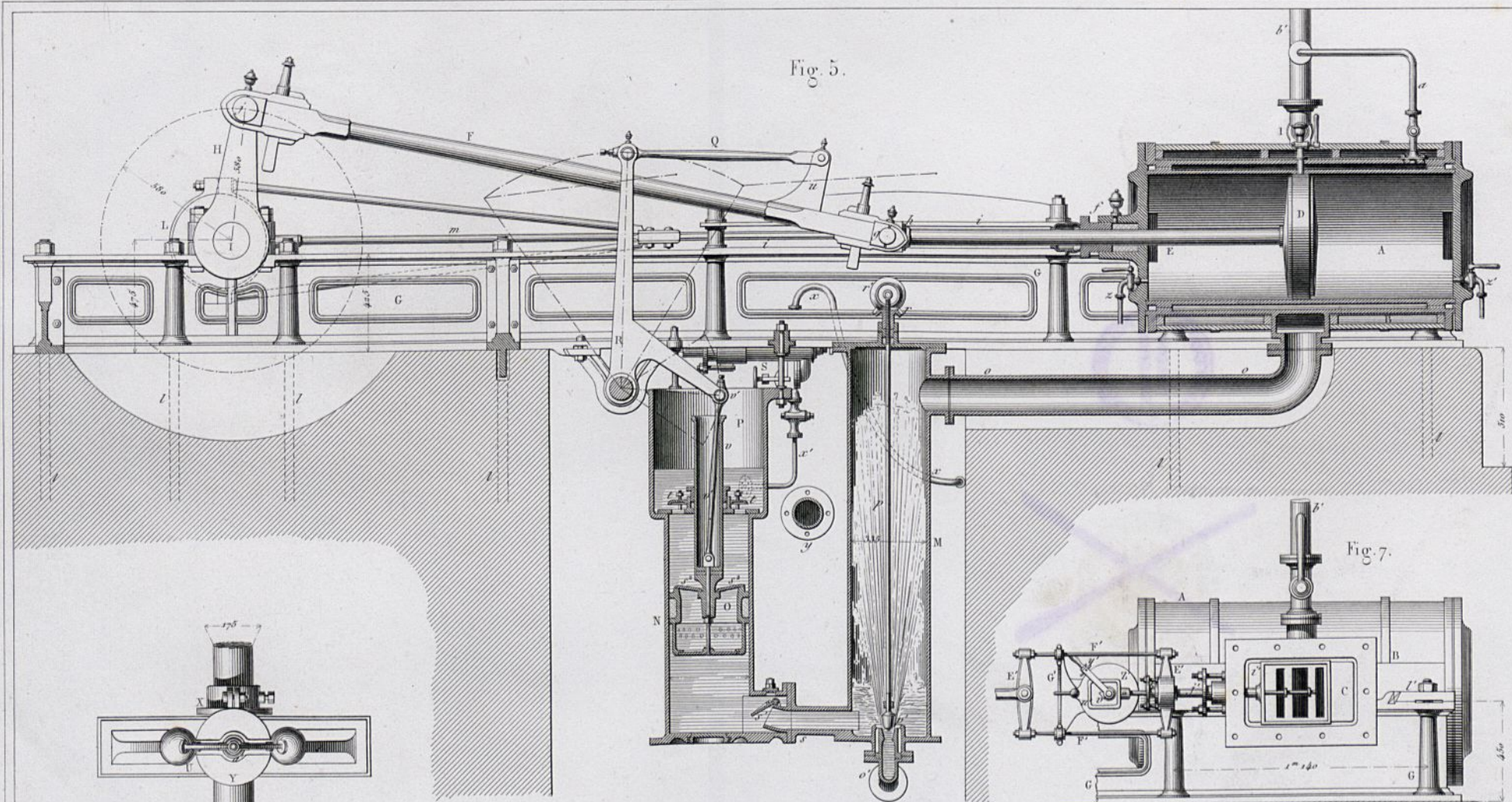


Fig. 5.

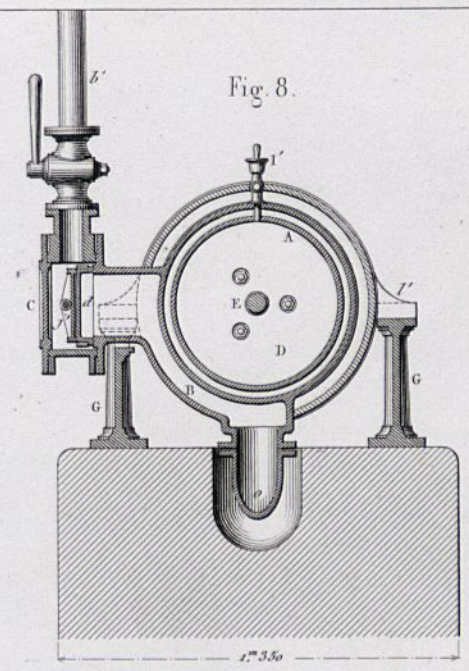


Fig. 8.

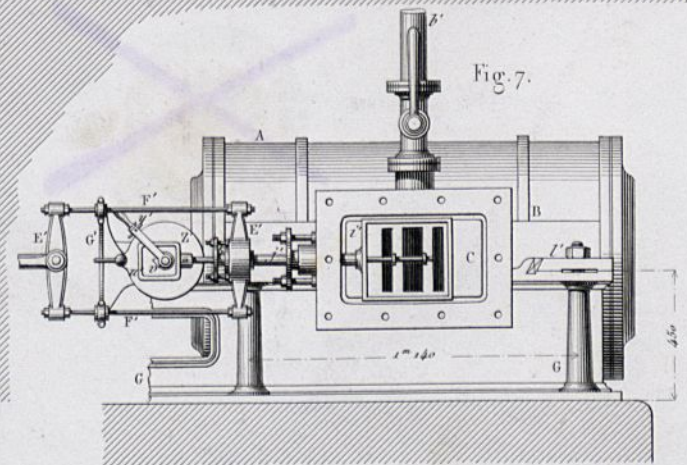


Fig. 7.

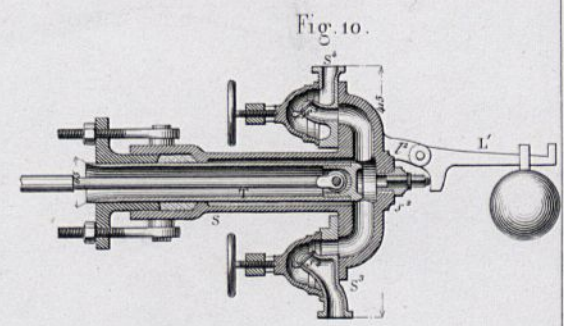


Fig. 10.

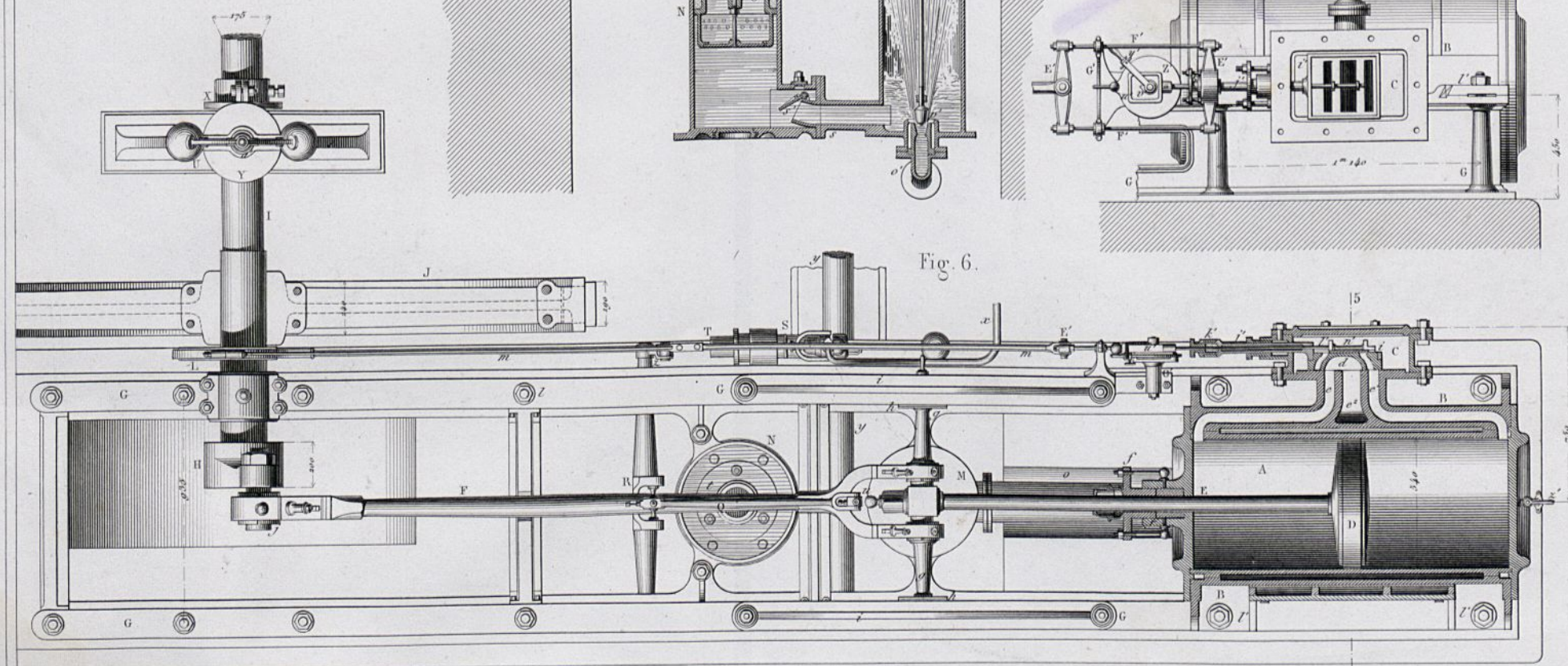


Fig. 6.

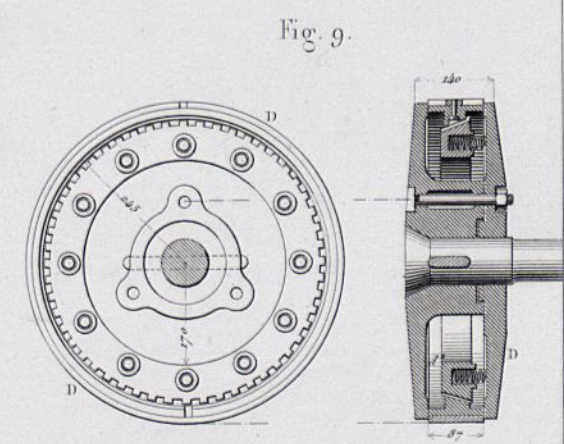


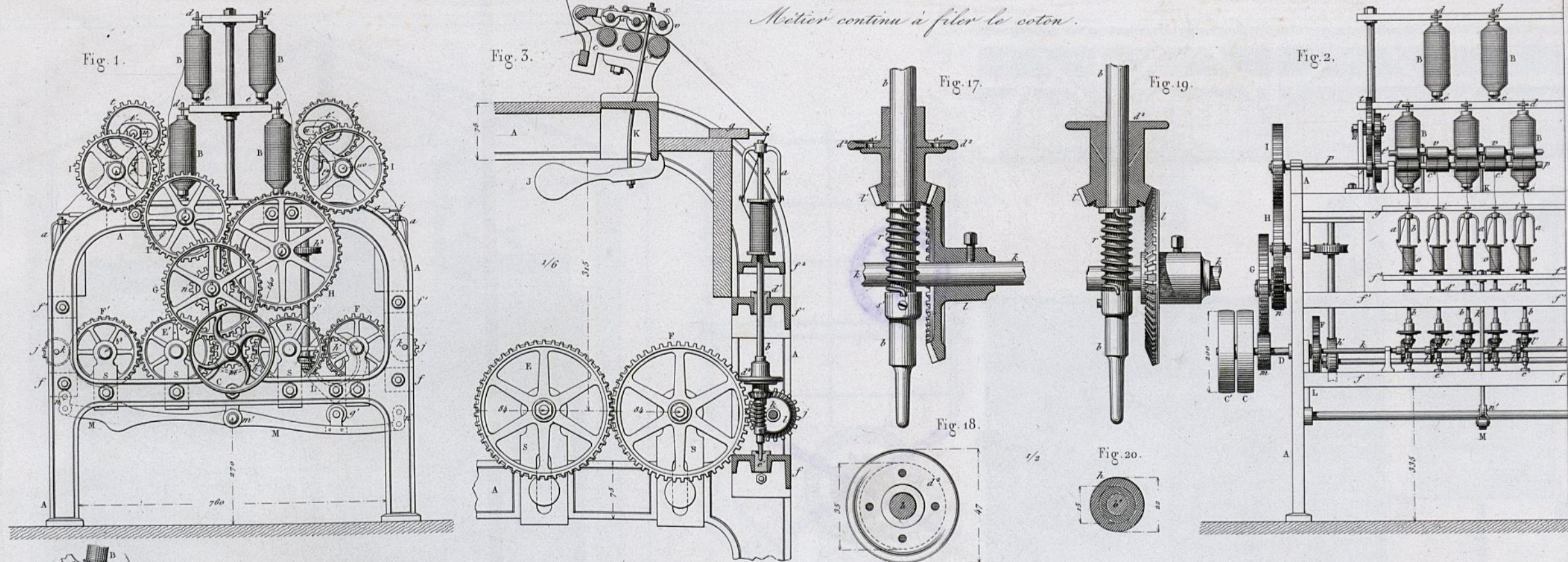
Fig. 9.

Echelle de 1/25 pour Fig. 5 & 6. 3 mètres.

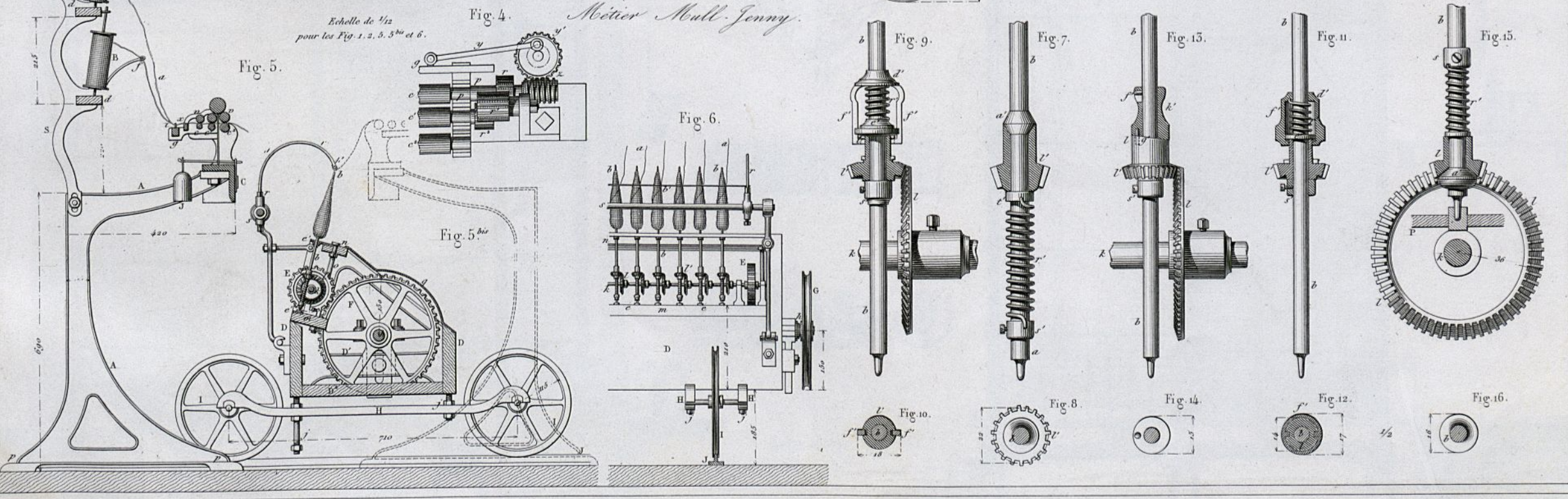
Echelle de 2/25 pour Fig. 9 & 10.



*Métier continu à filer le coton.*



*Métier Mull-Jenny.*





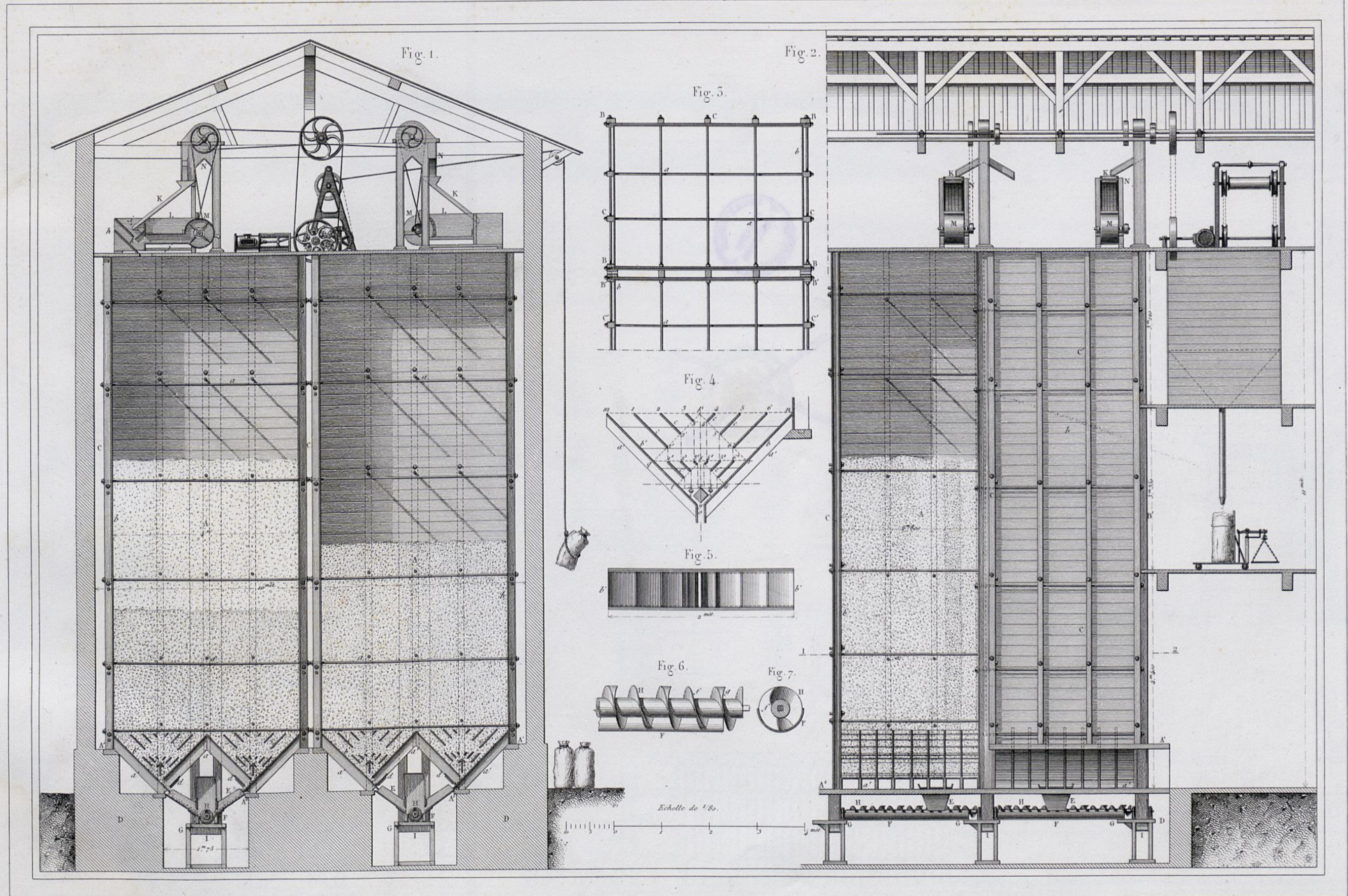




Fig. 1.

Longueur totale = 384<sup>m</sup> 45

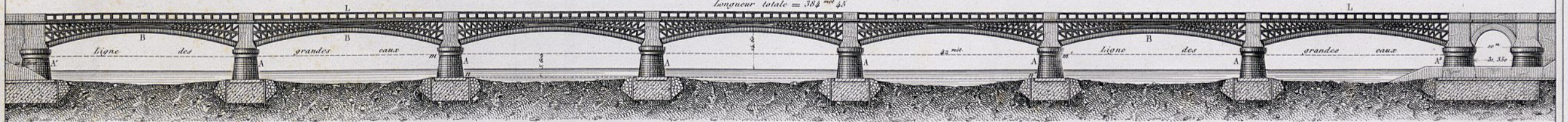


Fig. 5.

Fig. 2.

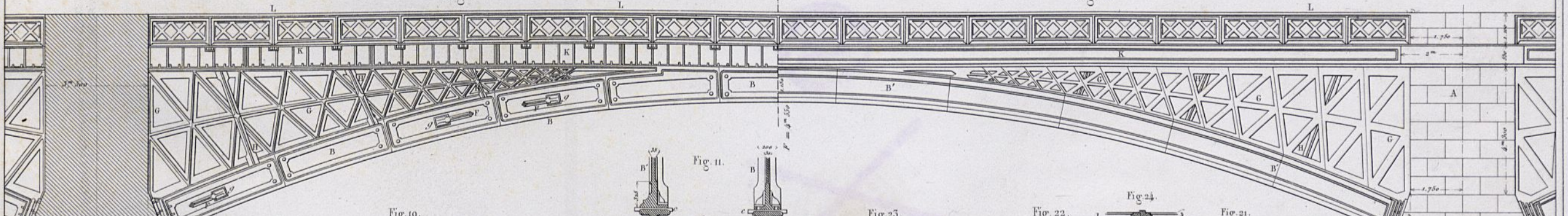


Fig. 11.

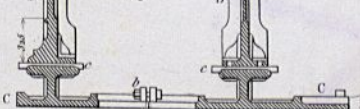


Fig. 12.

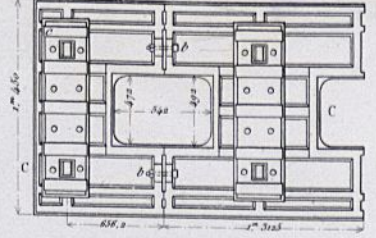


Fig. 19.

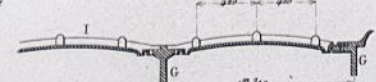


Fig. 20.

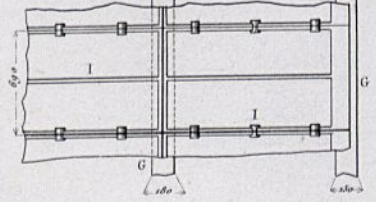


Fig. 18.



Fig. 23.



Fig. 22.

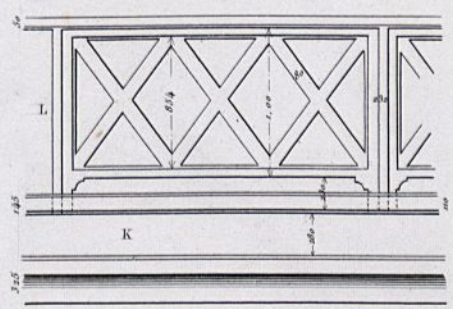


Fig. 24.



Fig. 21.



Inclinaison 1<sup>m</sup> par mètre  
Niveau des plus hautes eaux  
Rayon = 50<sup>m</sup> 240

Fig. 14.

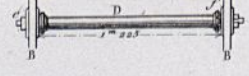


Fig. 16.

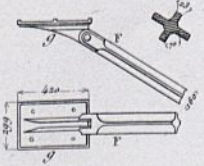


Fig. 15.

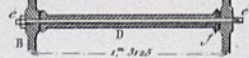


Fig. 17.

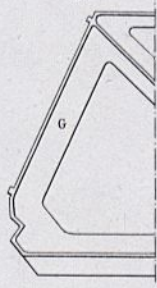


Fig. 13.

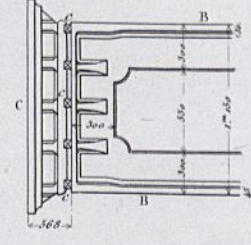


Fig. 9.

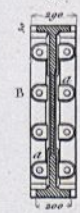


Fig. 8.

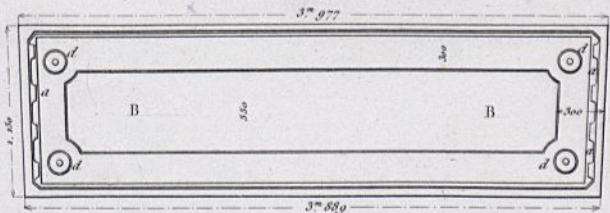


Fig. 10.

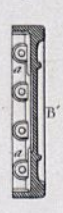


Fig. 7.

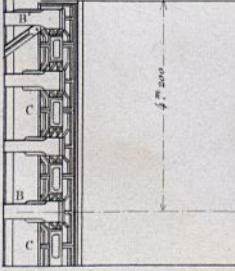


Fig. 6.

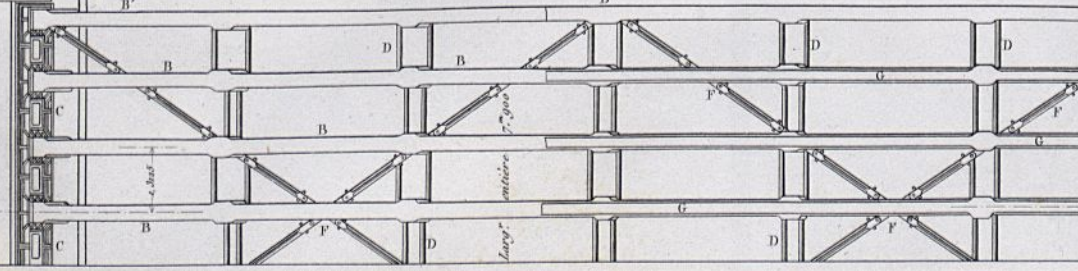


Fig. 5.

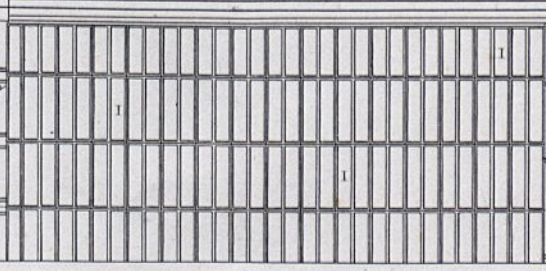
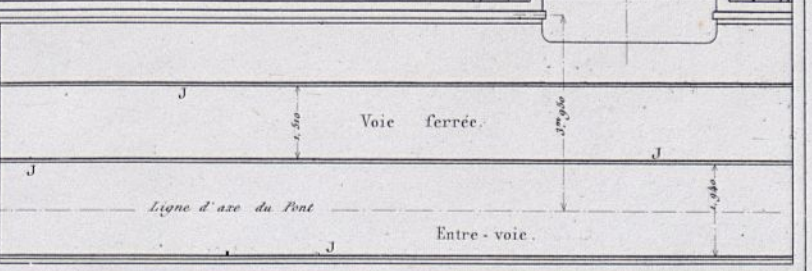


Fig. 4.



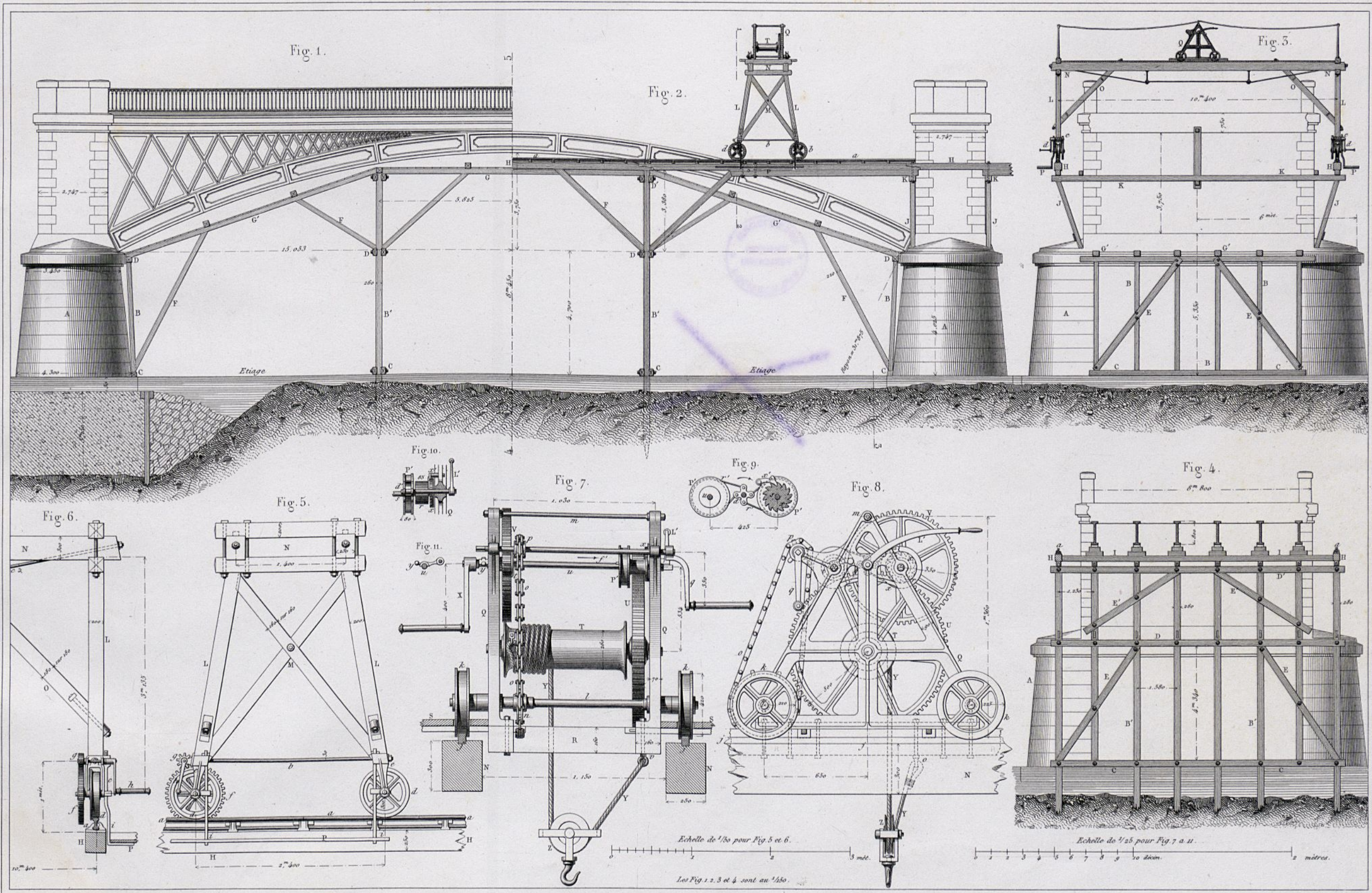
Voie ferrée

Ligne d'axe du Pont

Entre-voie

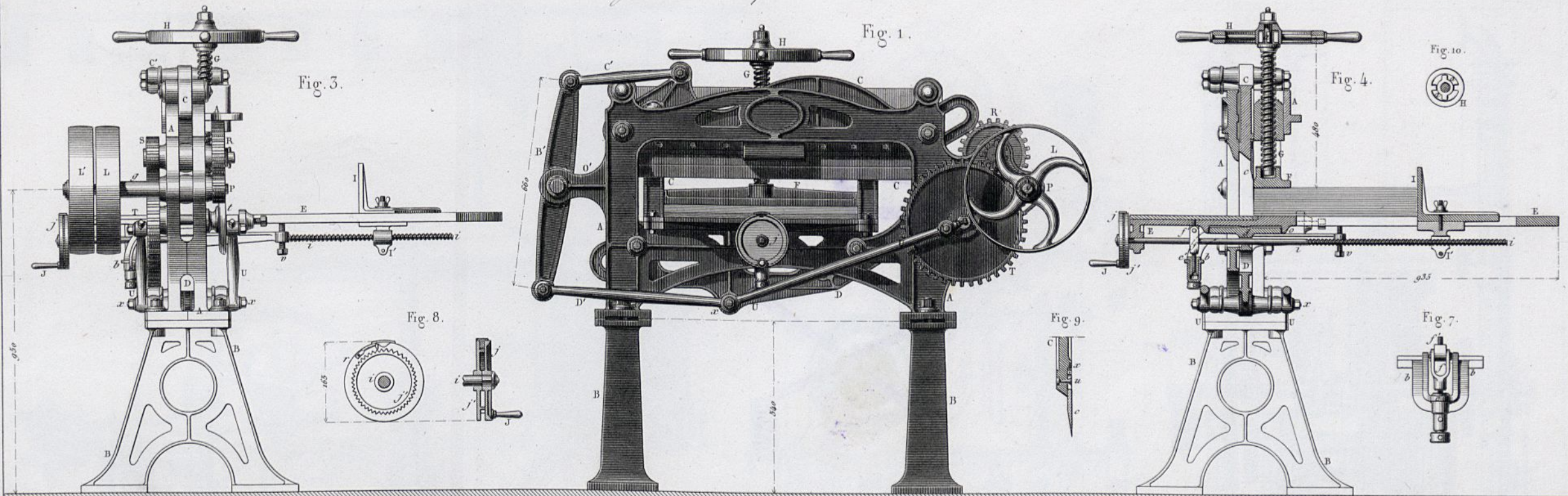




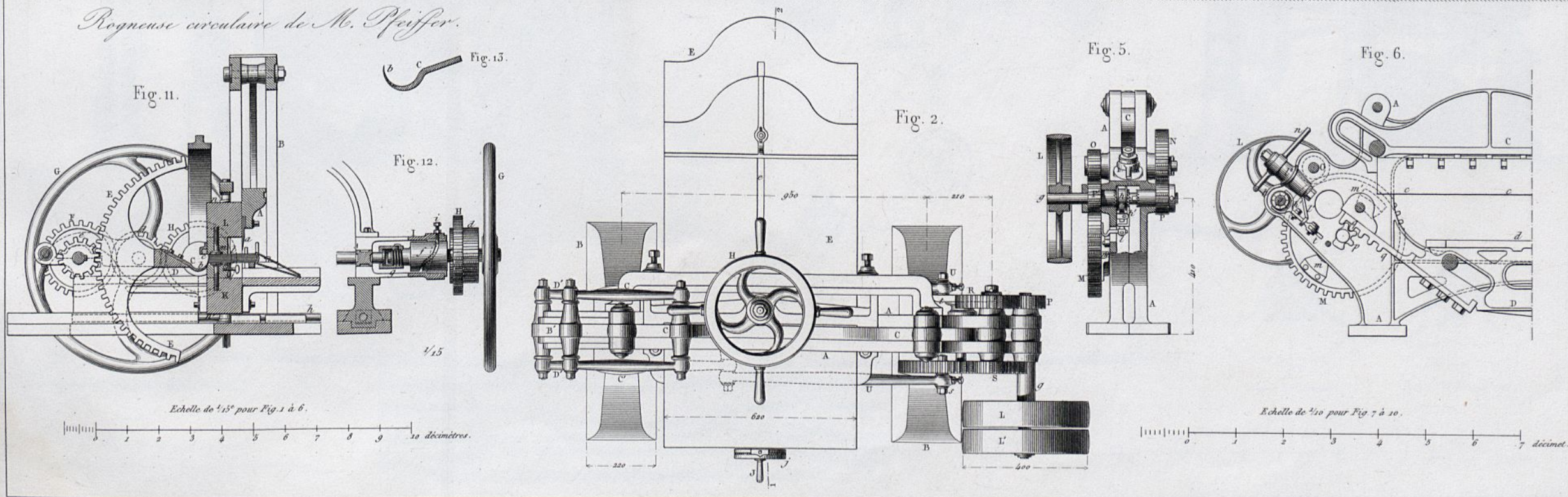




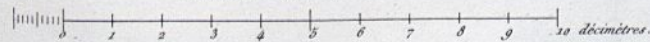
*Roigneuse mécanique de M. Poirier.*



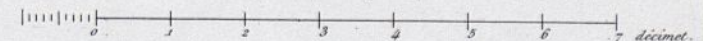
*Roigneuse circulaire de M. Pfeiffer.*



Echelle de 1/15<sup>e</sup> pour Fig. 1 à 6.



Echelle de 1/10<sup>e</sup> pour Fig. 7 à 10.





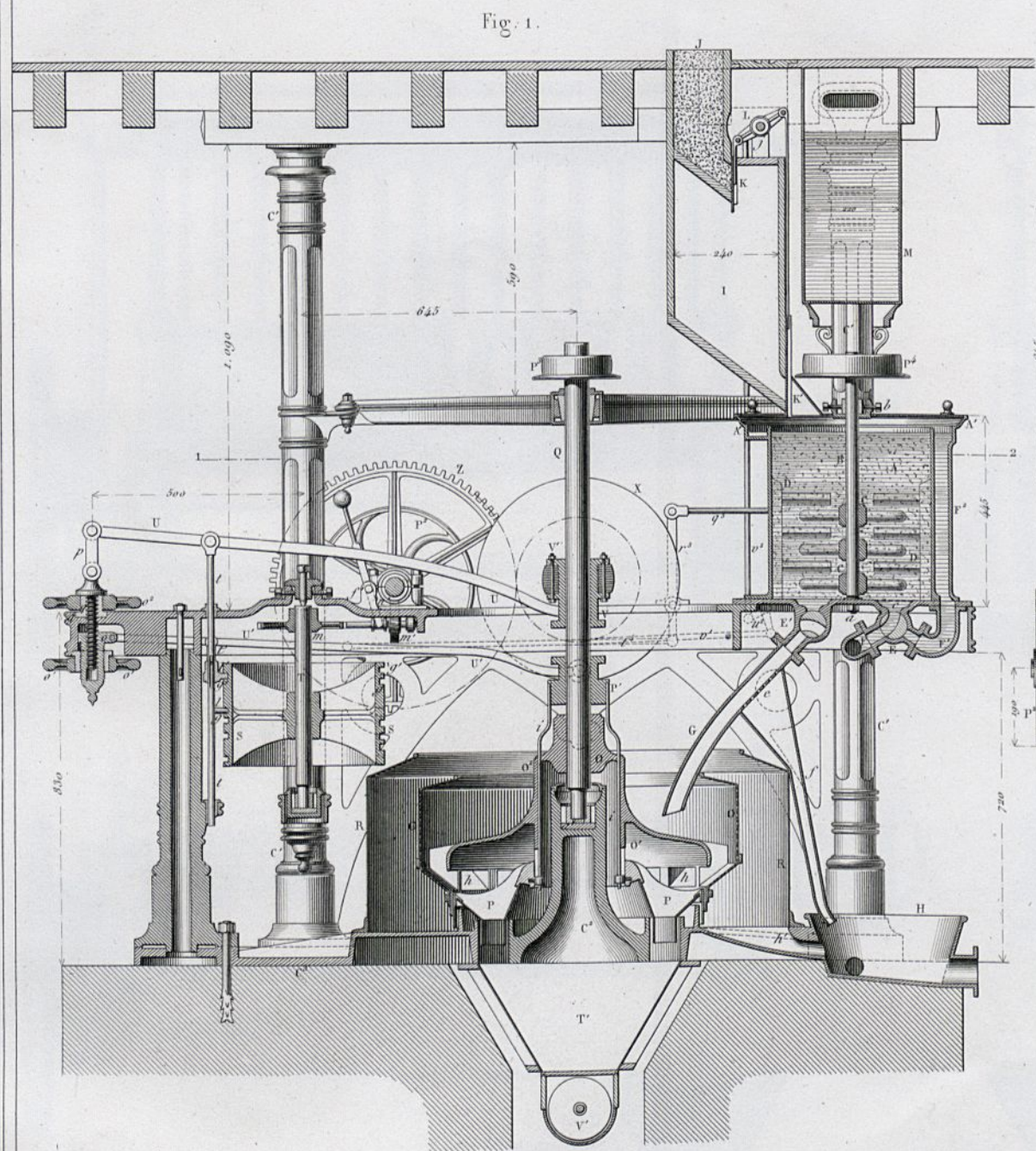


Fig. 1.

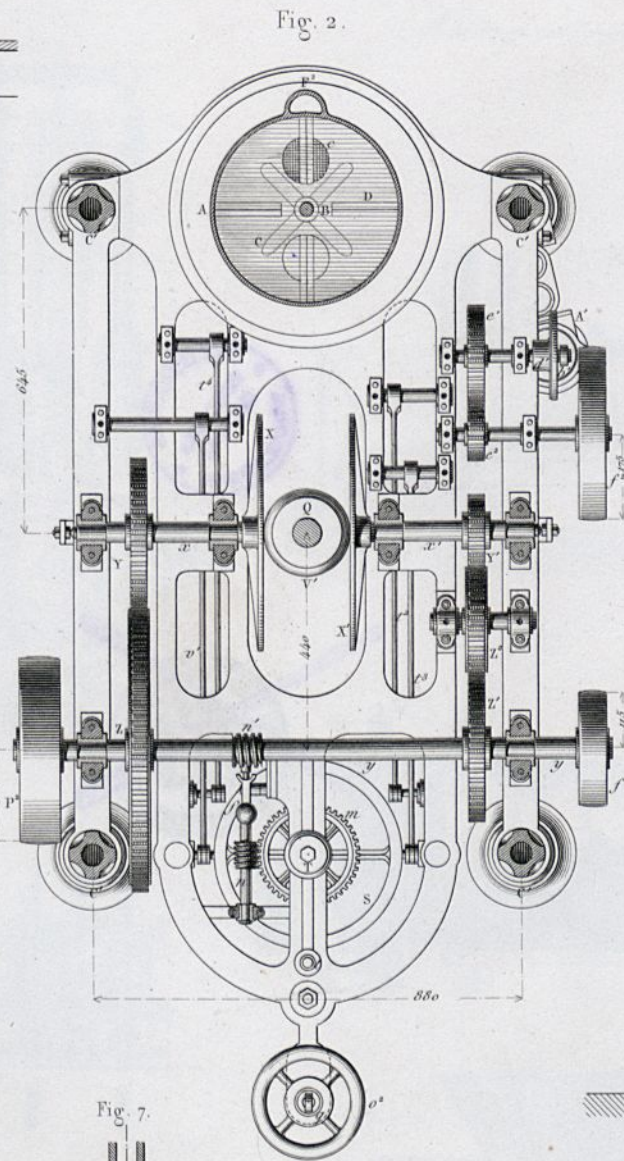


Fig. 2.

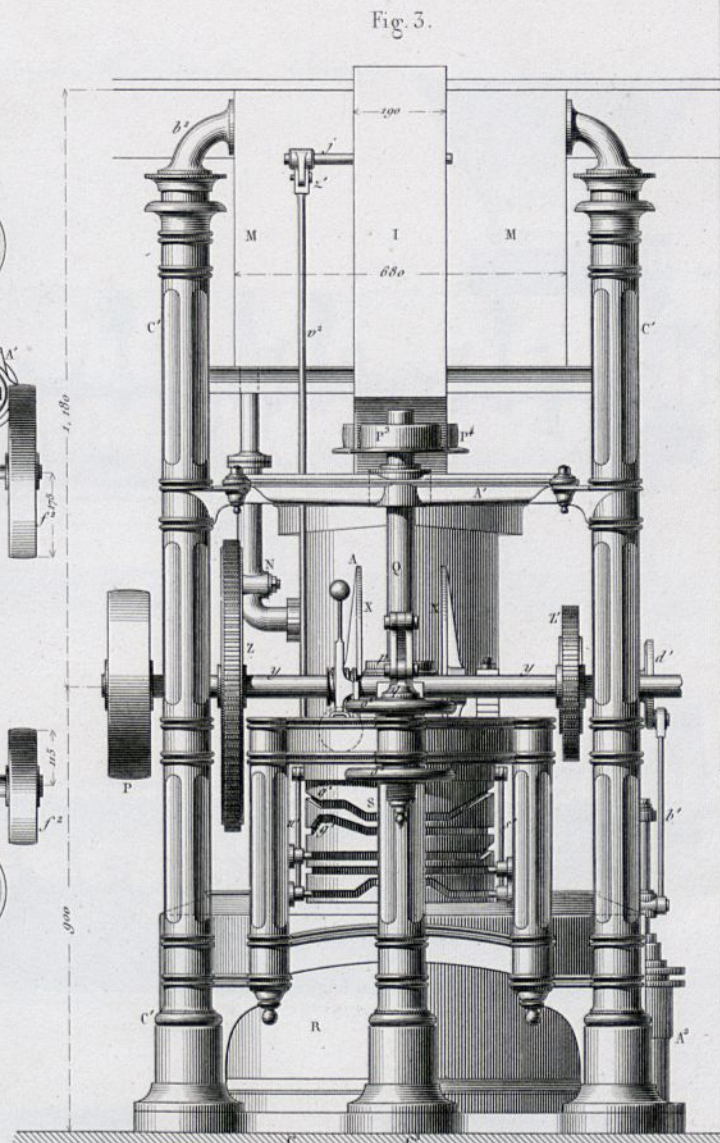


Fig. 3.

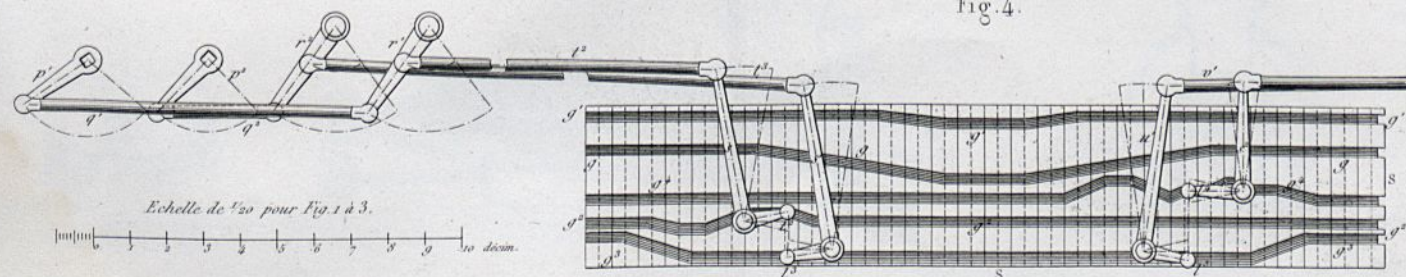


Fig. 4.

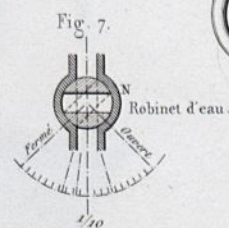


Fig. 7.

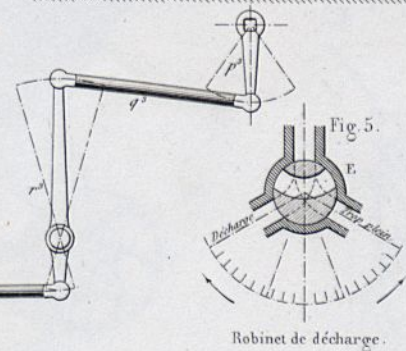


Fig. 5.

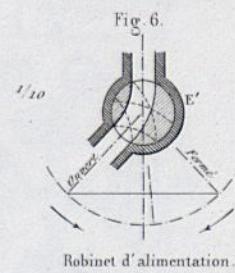
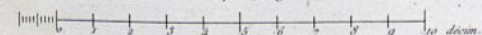


Fig. 6.

Echelle de 1/20 pour Fig 1 à 3.



Echelle de 1/5 pour Fig 4.

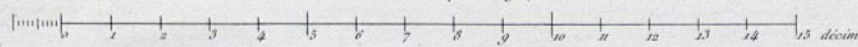




Fig. 5.

*Machine à mouler.*

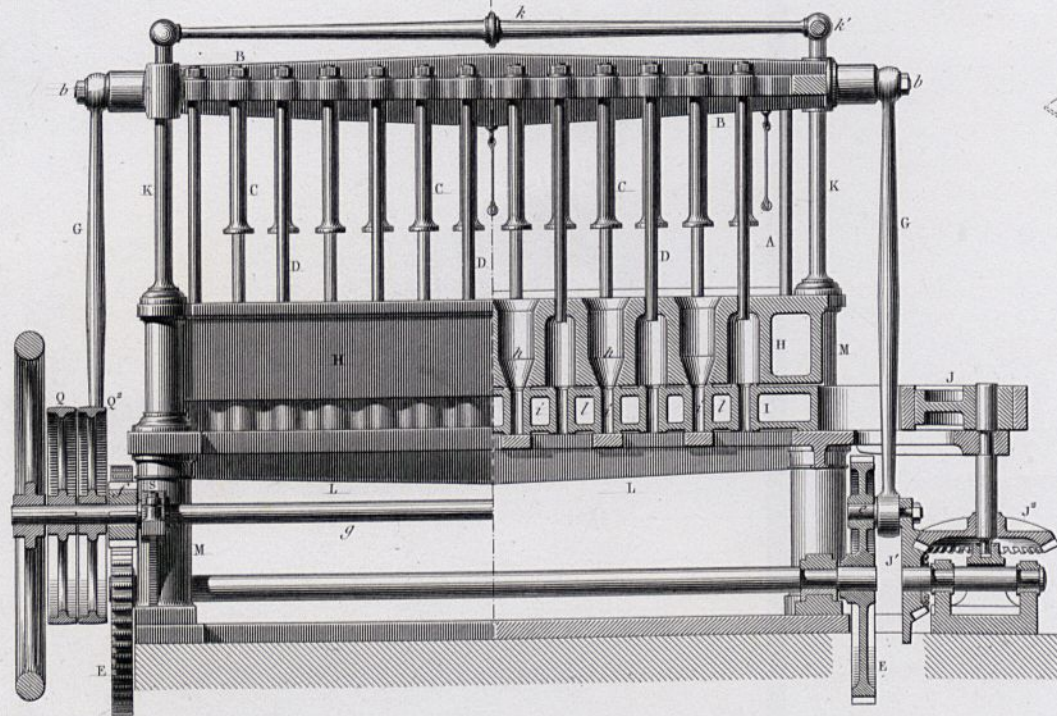
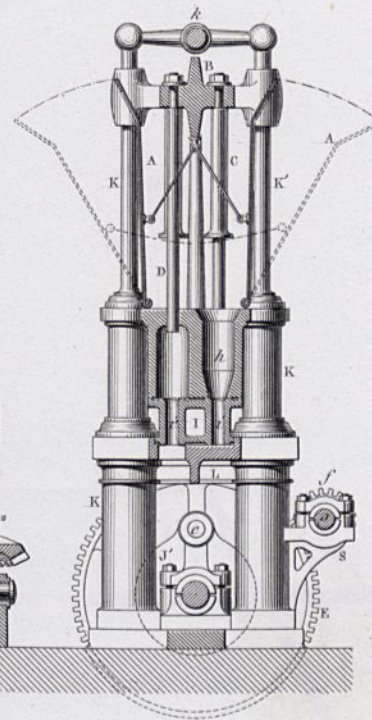


Fig. 6.



*Mélangeur par M. Popelin-Ducarre.*

Fig. 1.

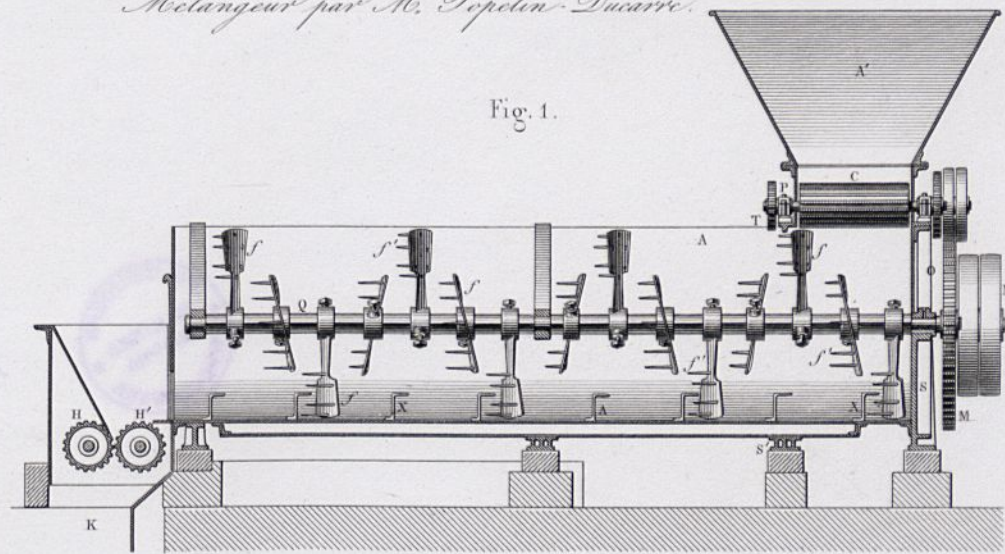


Fig. 4.

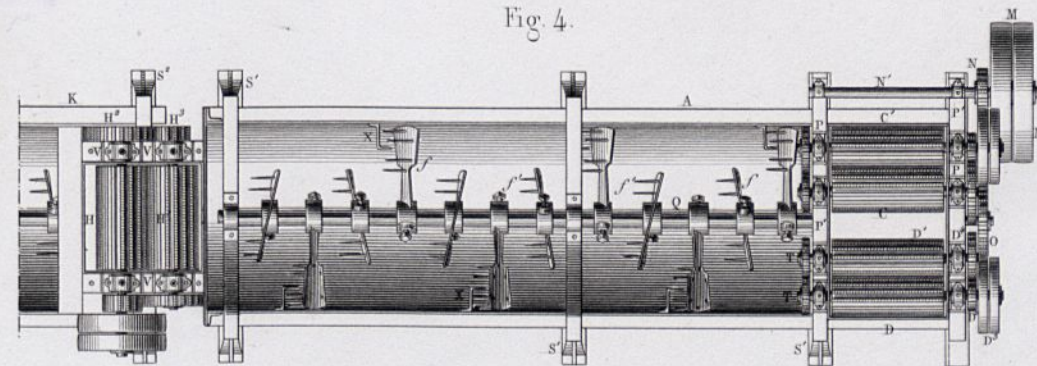


Fig. 7.

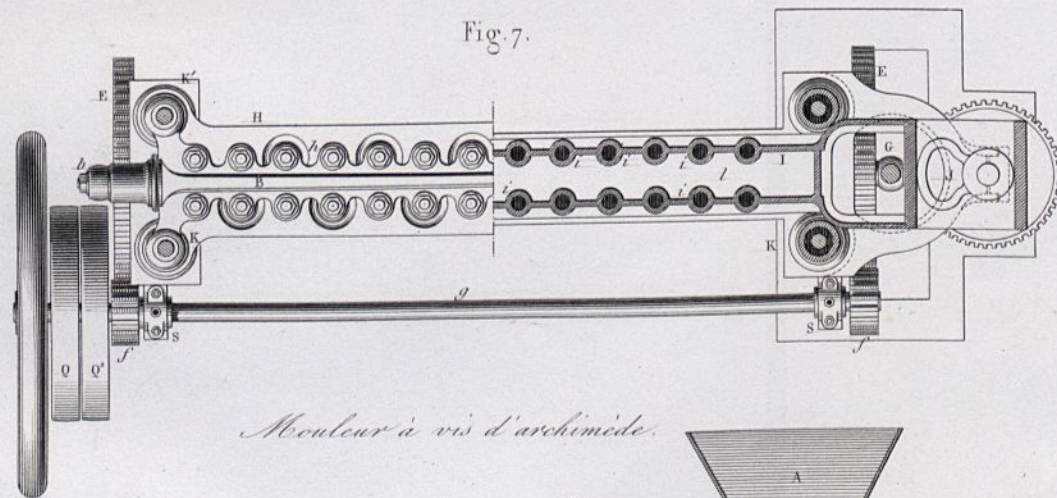
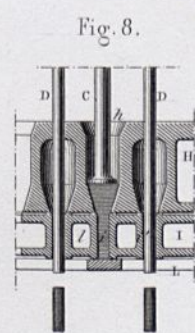


Fig. 8.



*Mouleur à vis d'archimède.*

Fig. 9.

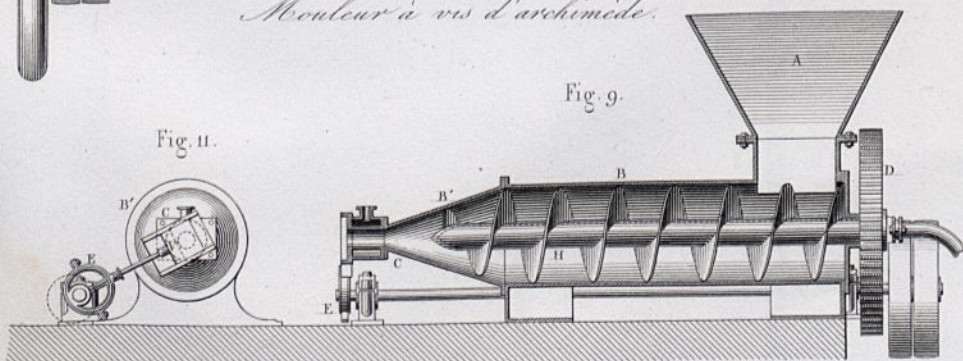
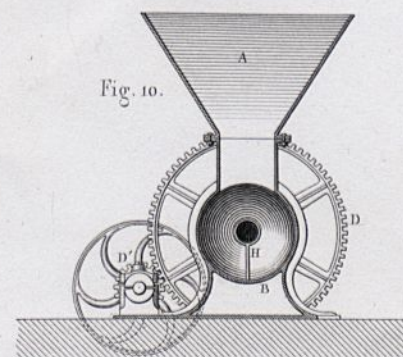


Fig. 10.



*Echelle de 1/20*

Fig. 2.

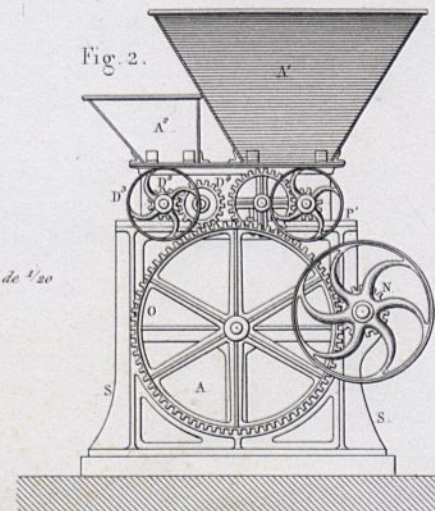
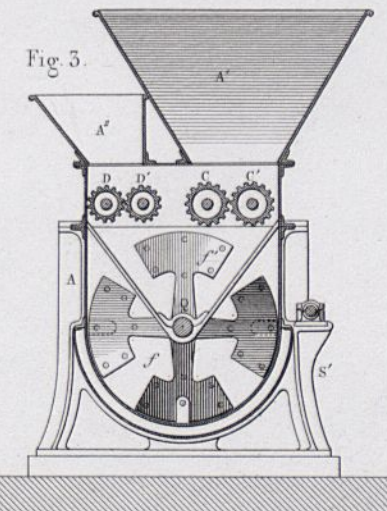


Fig. 3.

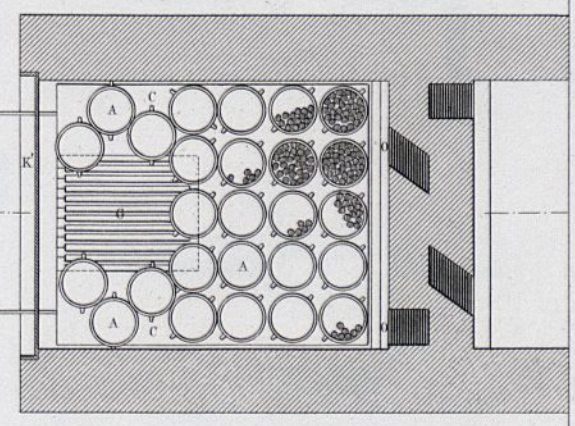
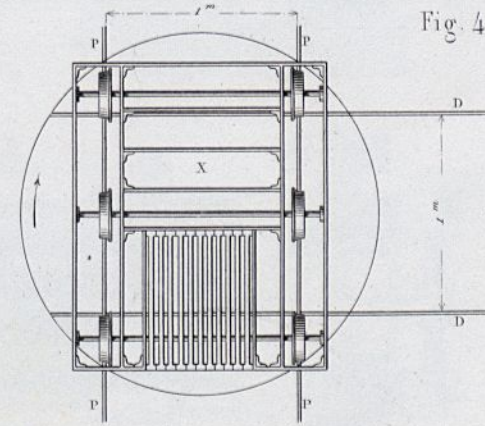
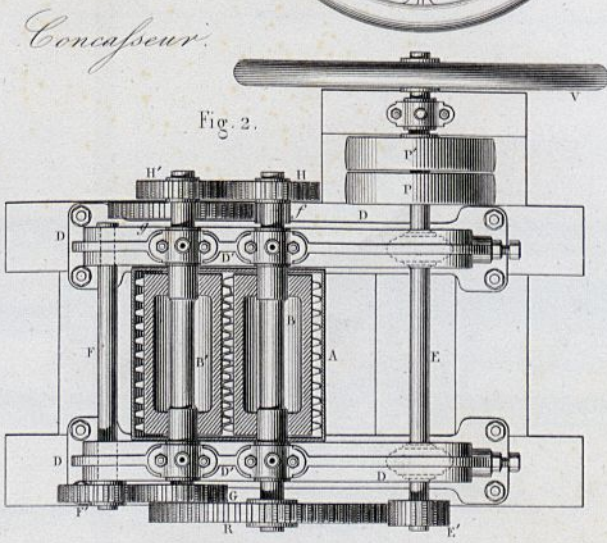
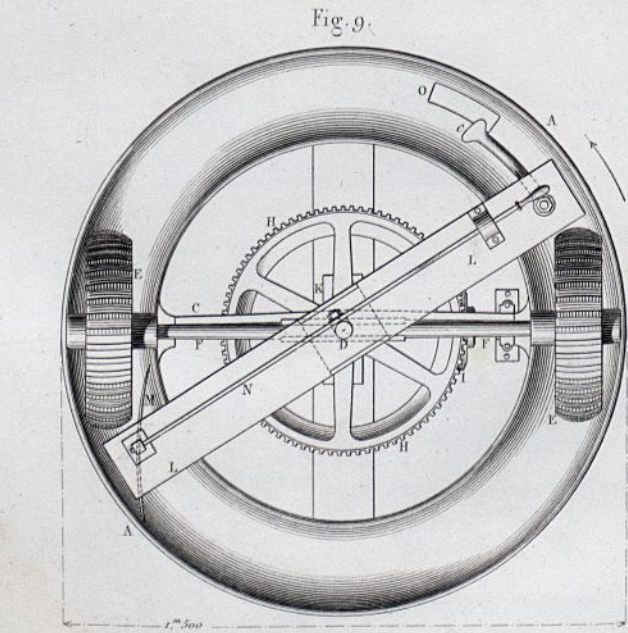
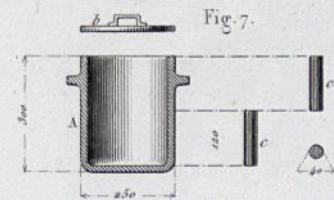
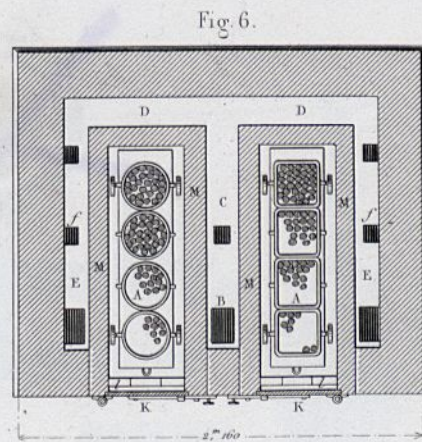
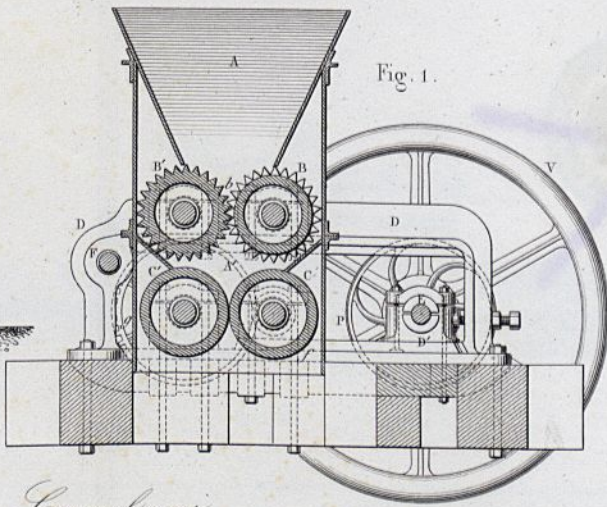
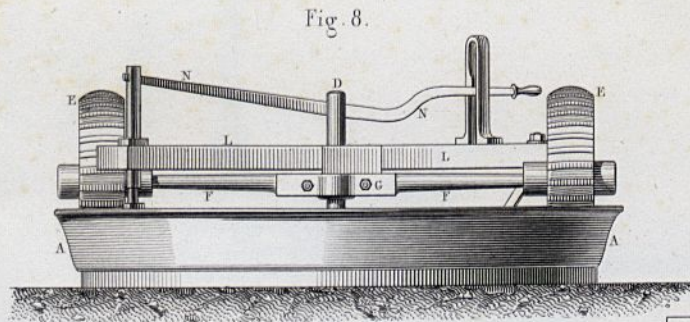
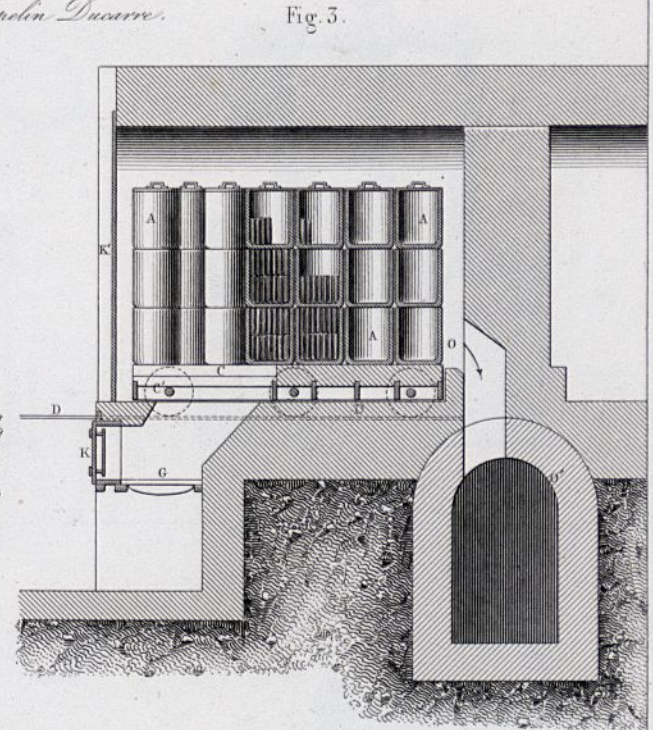
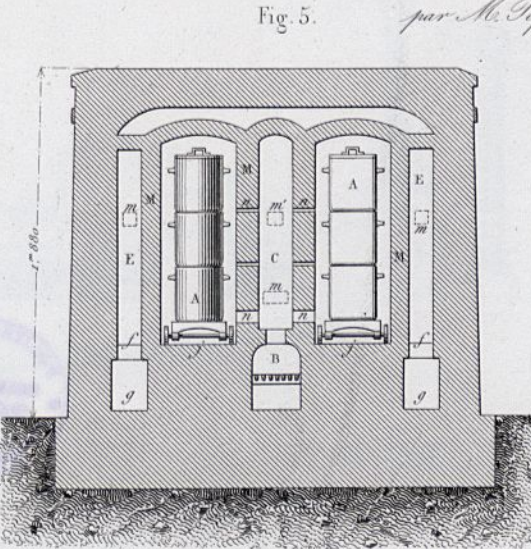
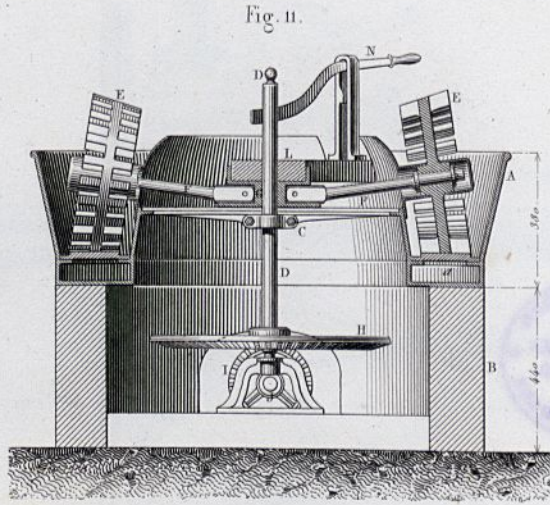
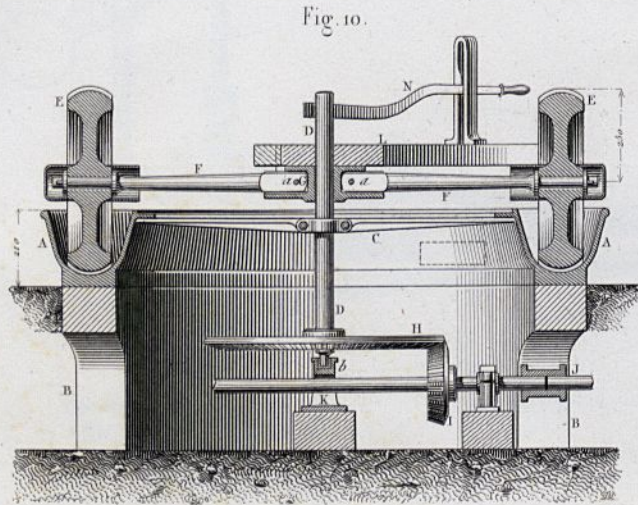






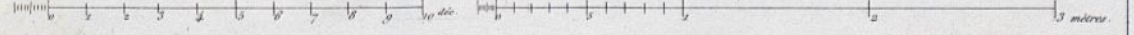
*Broyeurs et Mélangeurs.*  
*par M. Moreau.*

*Fours à carbonisation.*  
*par M. Popelin Ducarre.*



Echelle de 1/20 pour Fig. 1, 2 et 8 à 11.

Echelle de 1/30 pour Fig. 3 à 6.





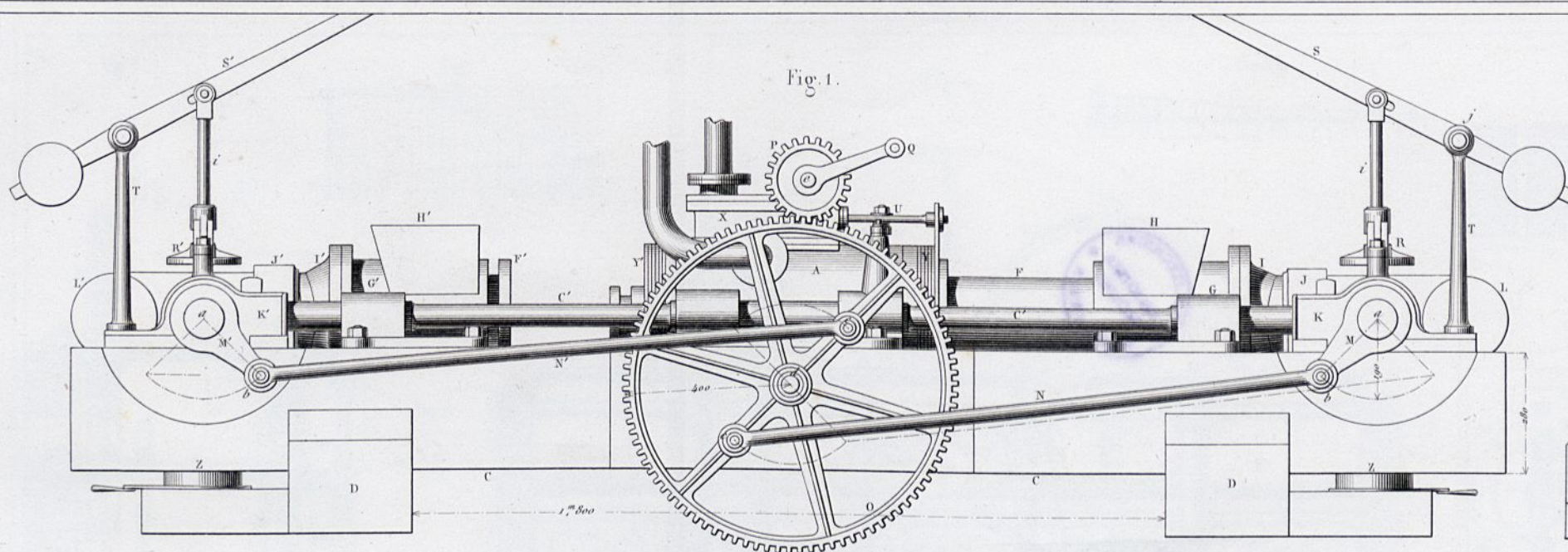


Fig. 1.

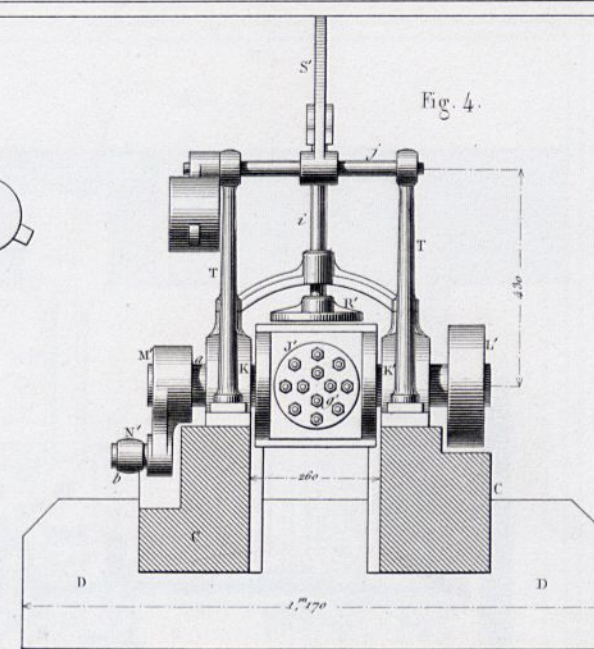


Fig. 4.

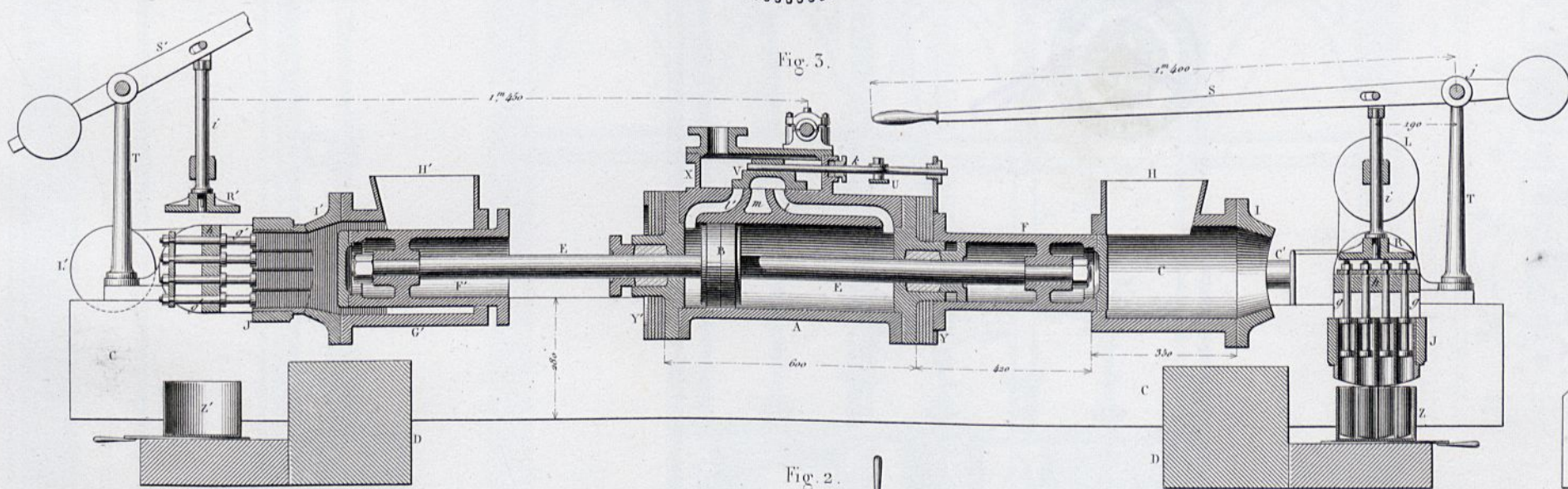


Fig. 5.

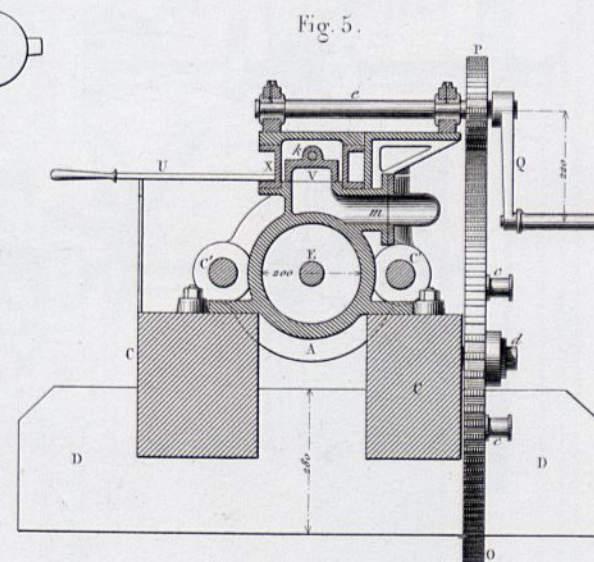


Fig. 5.

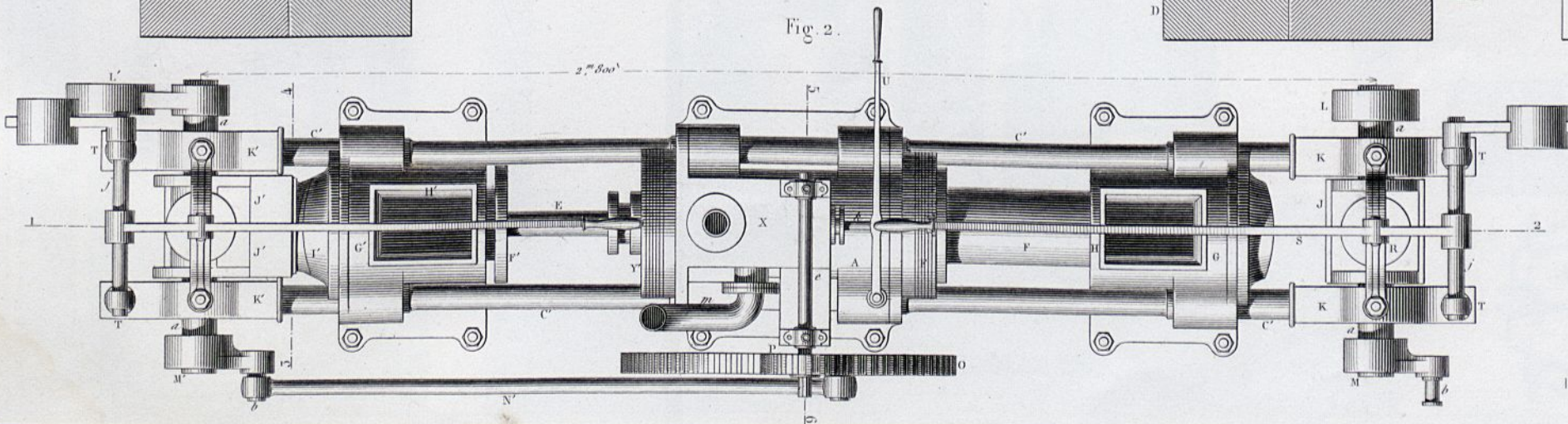


Fig. 2.

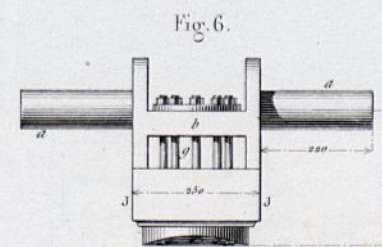
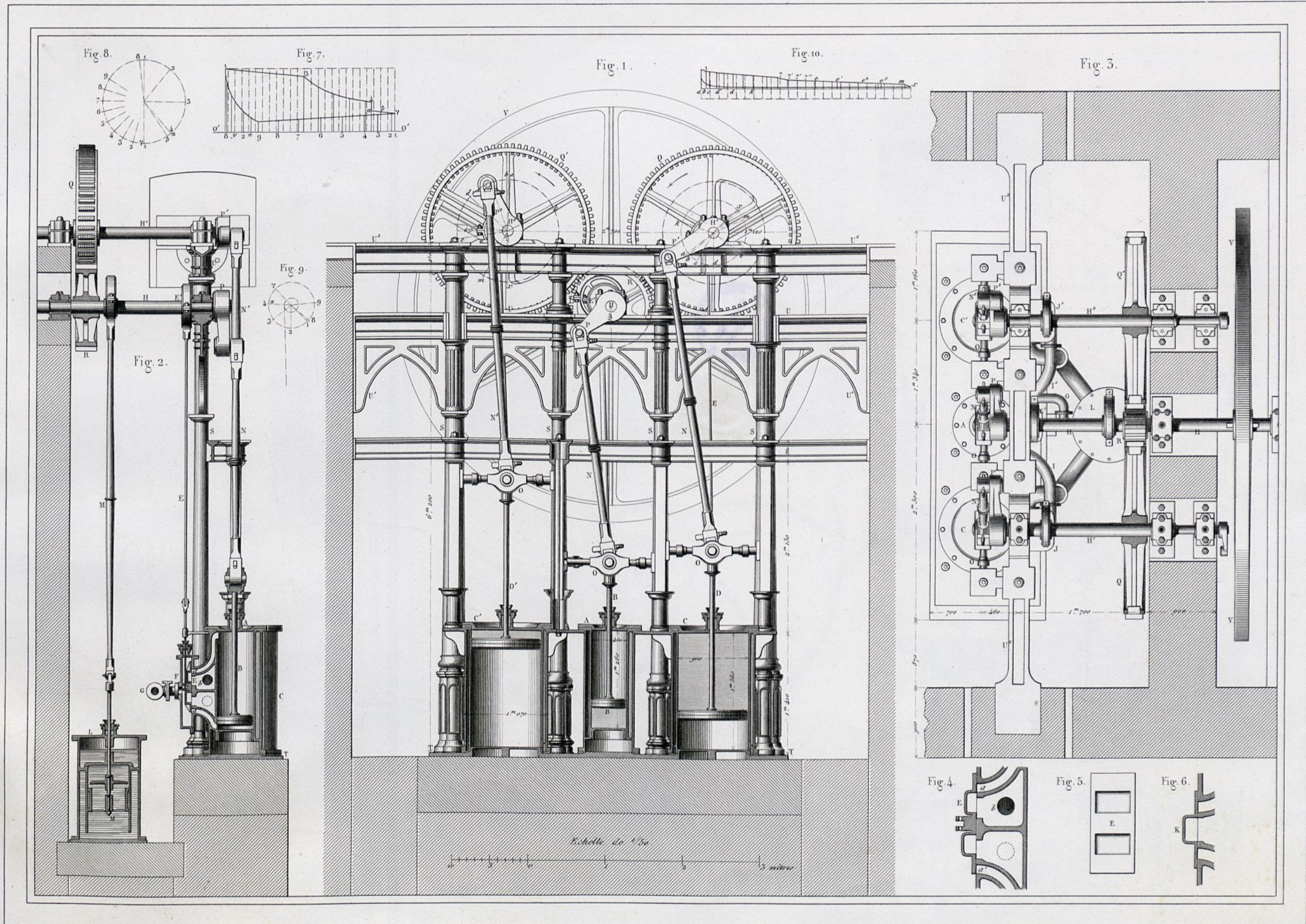


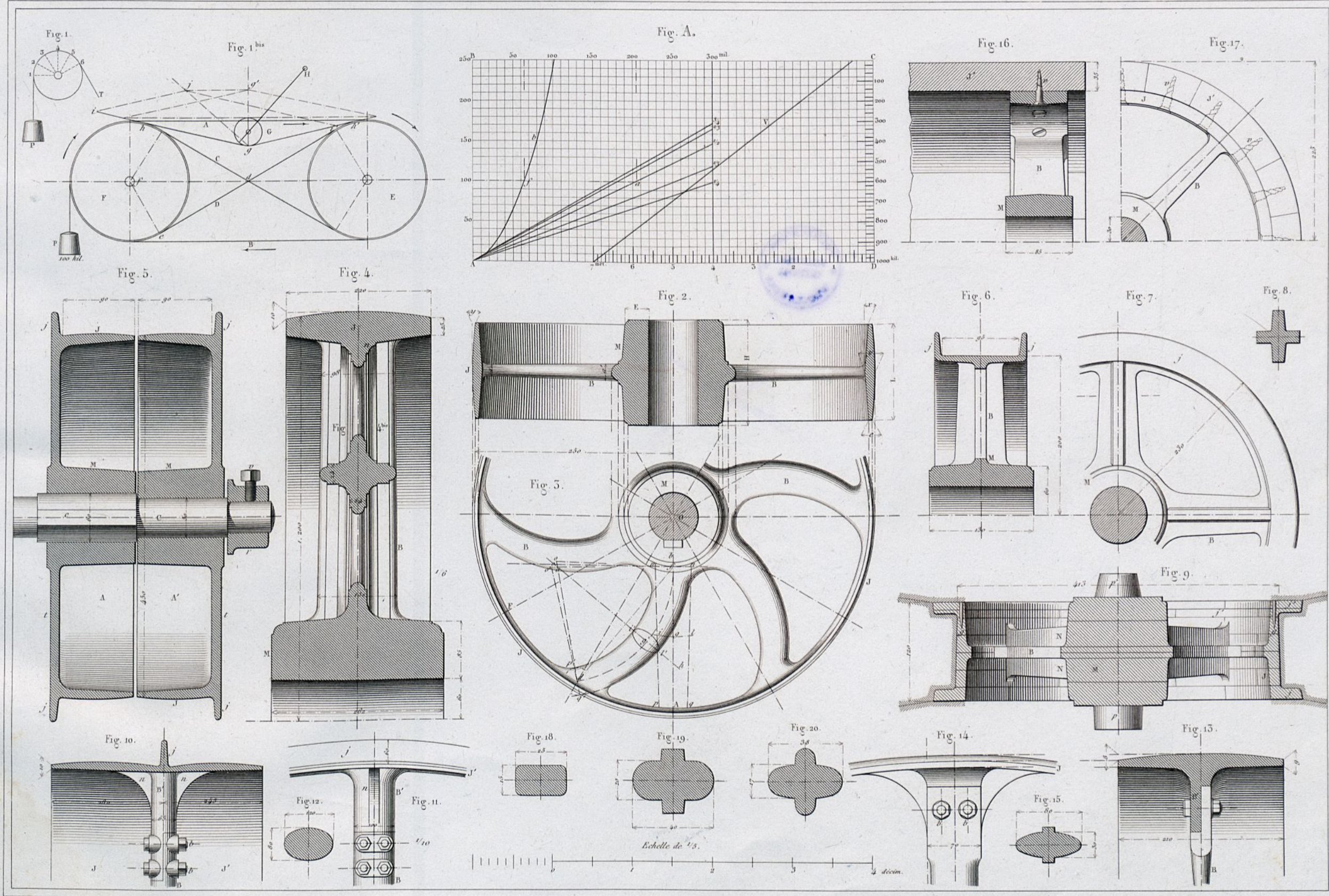
Fig. 6.

Eschelle de 1/15<sup>e</sup>













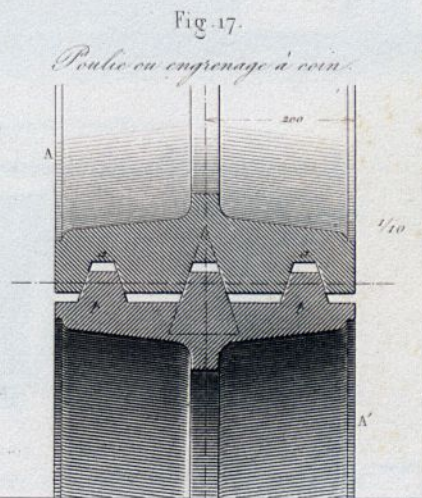
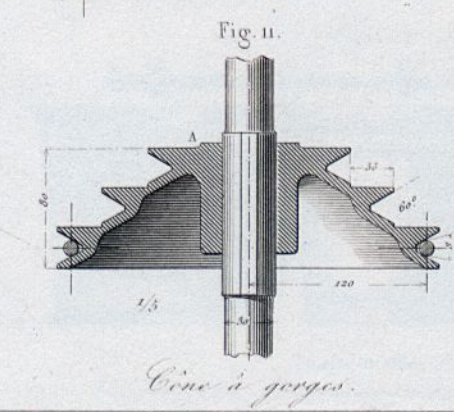
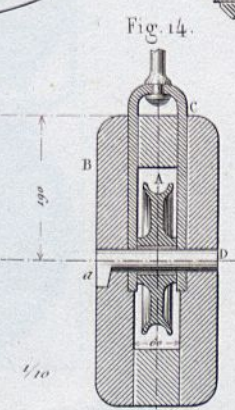
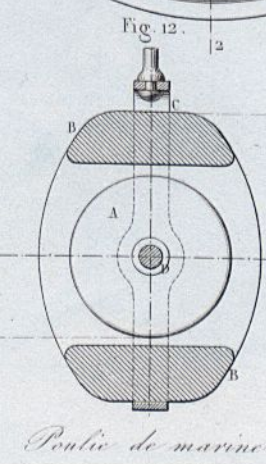
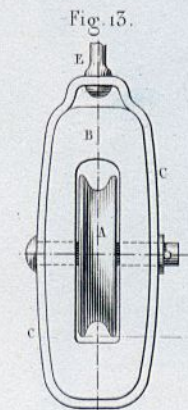
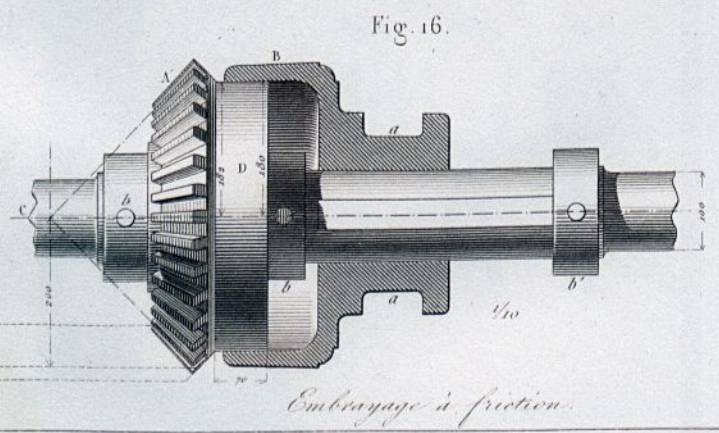
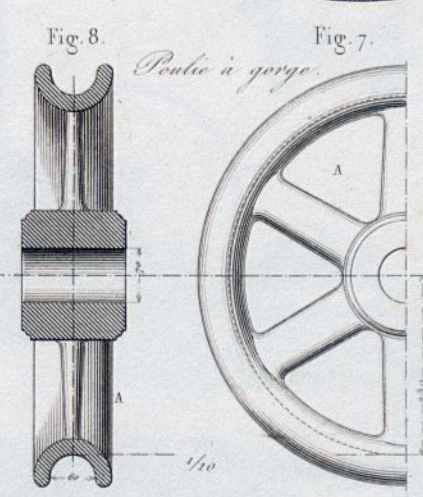
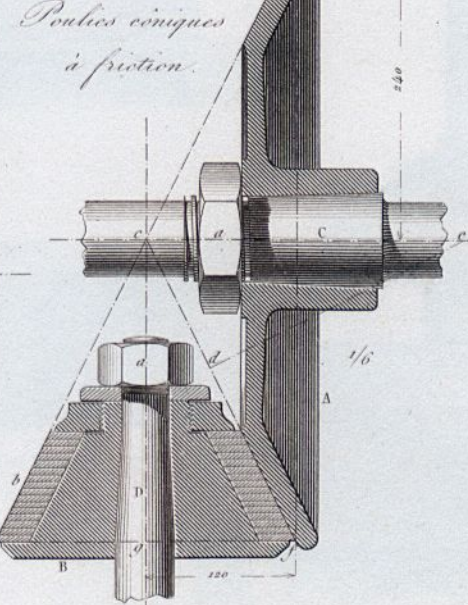
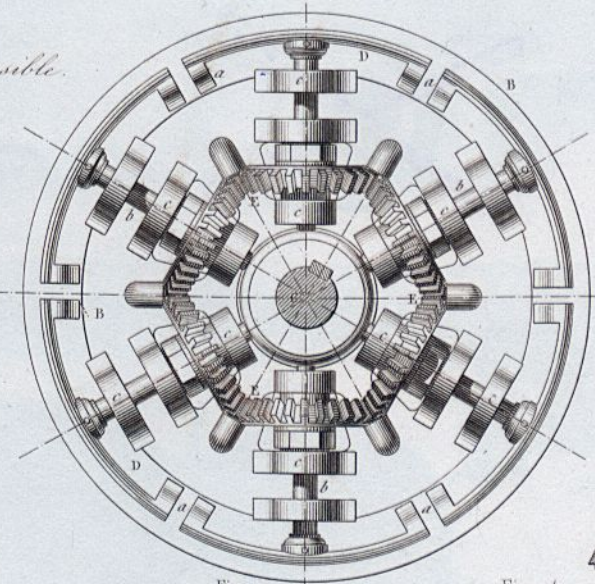
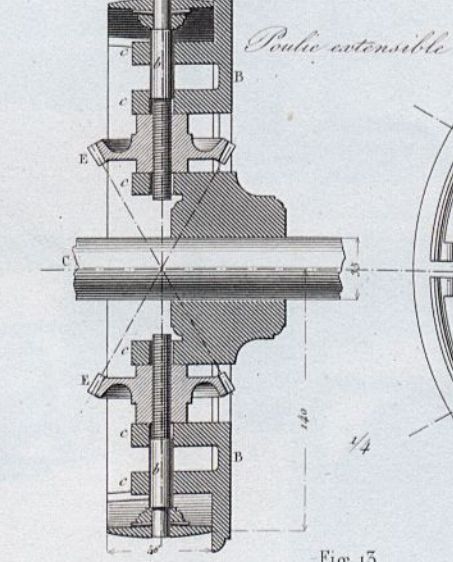
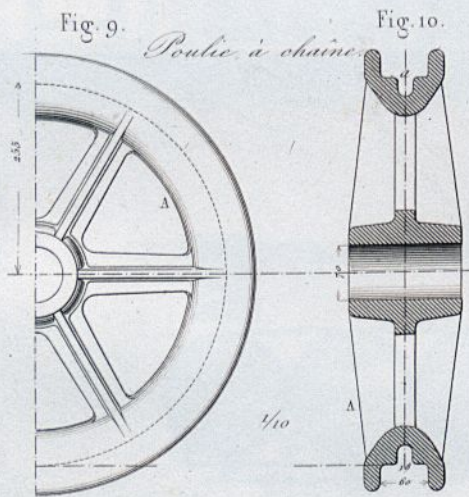
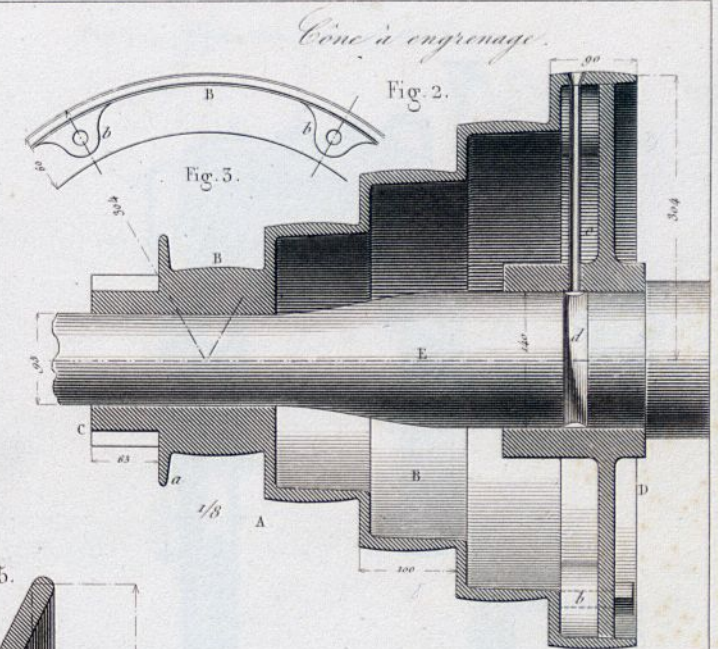
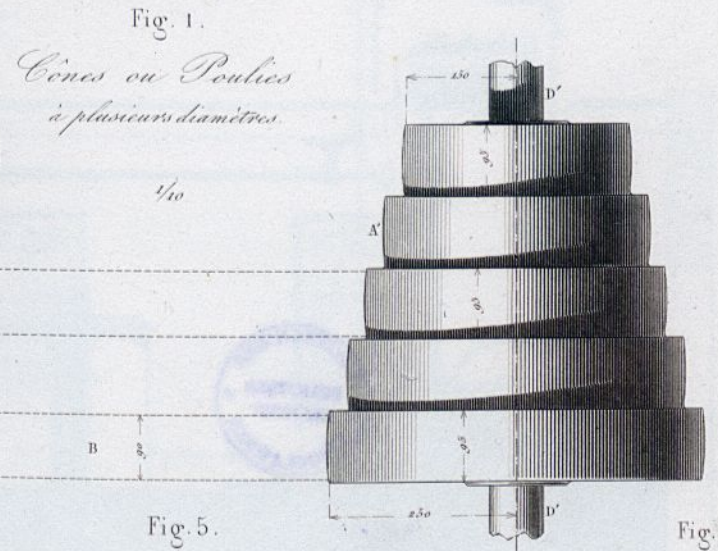
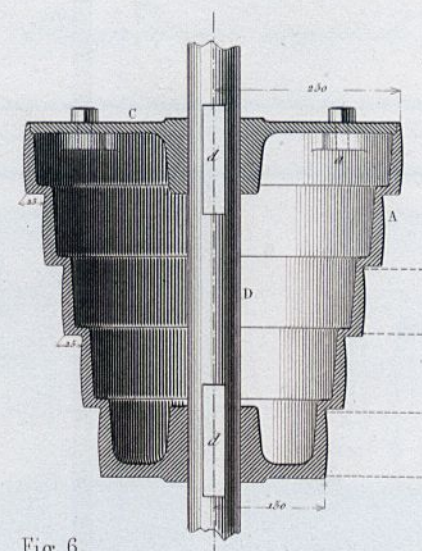
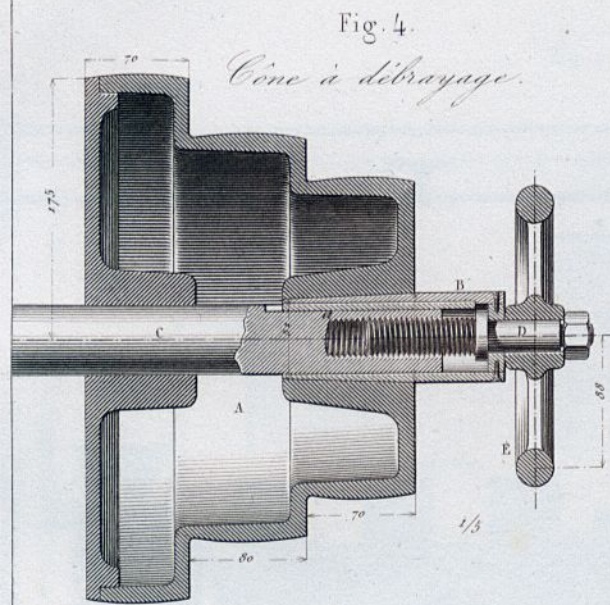




Fig. 2. Elevation des appareils.

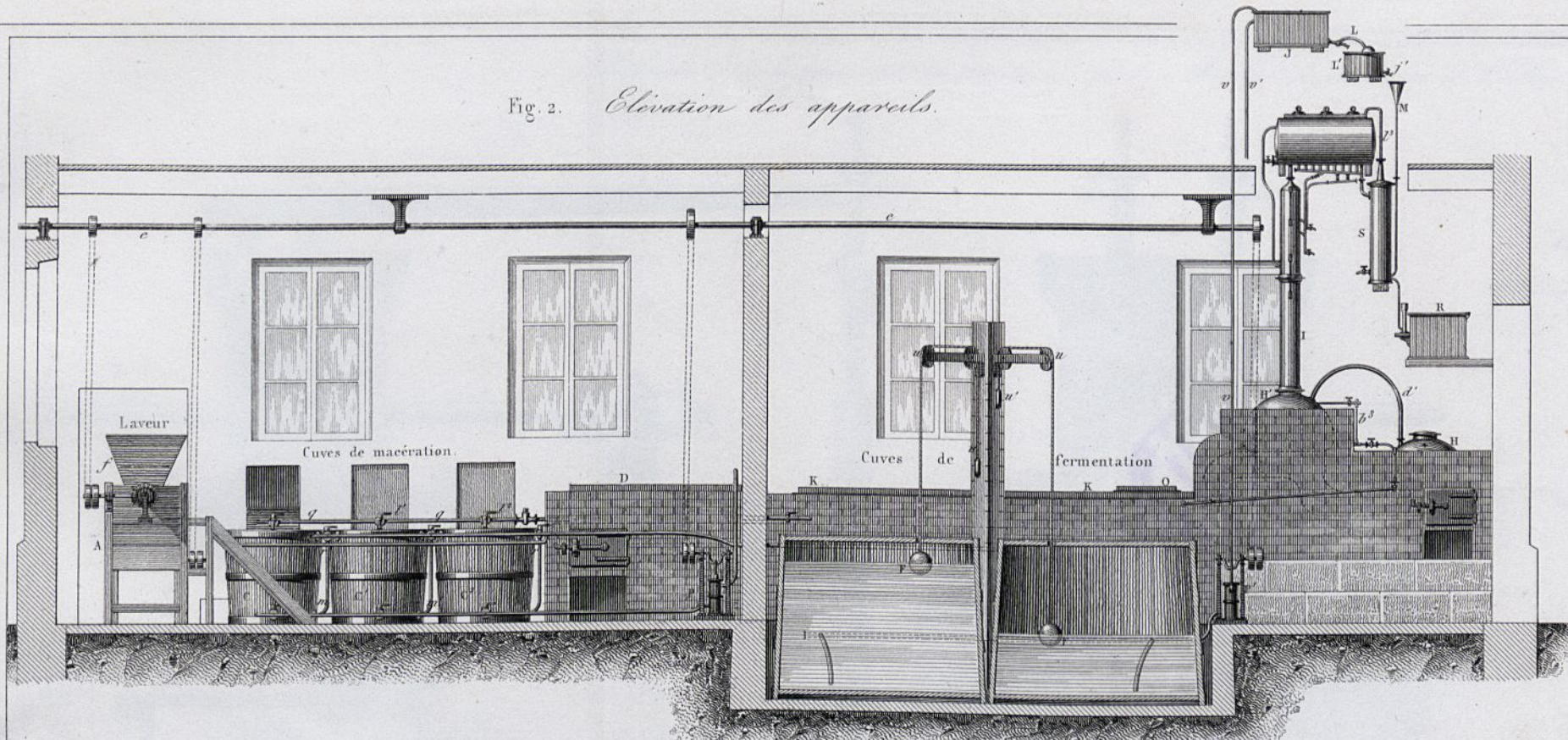


Fig. 4. Appareil de distillation.

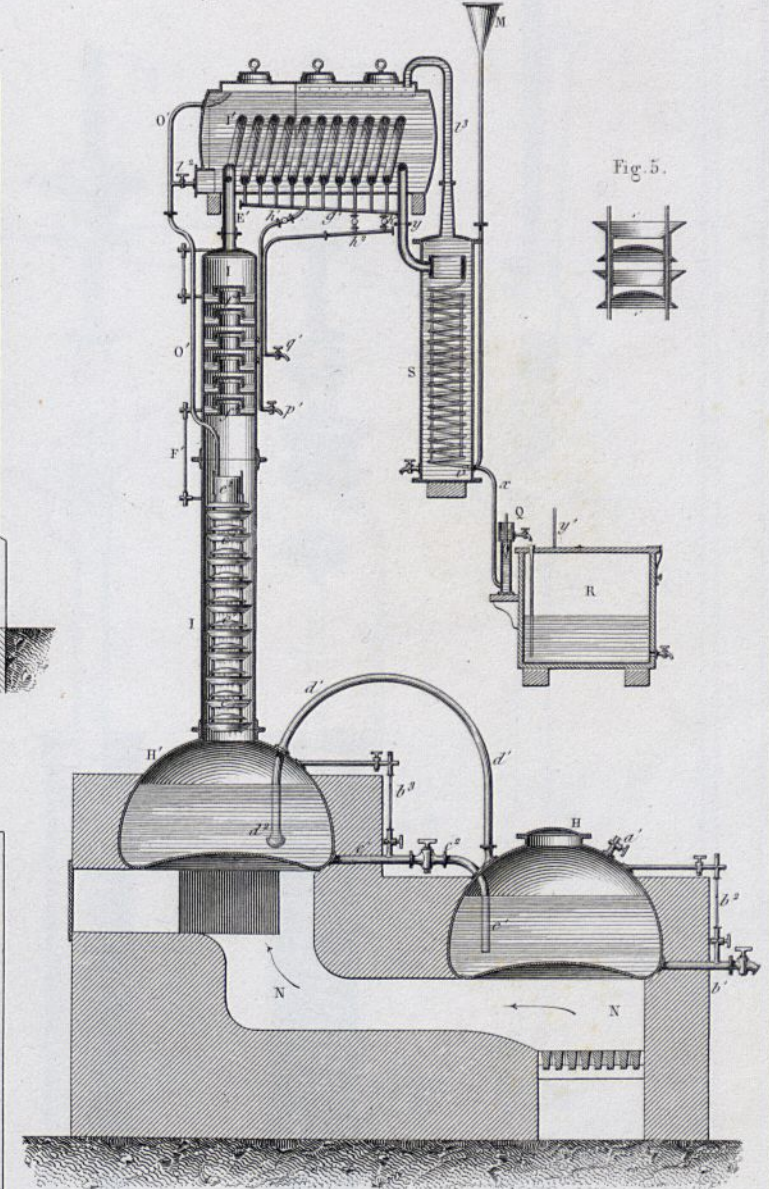


Fig. 1. Plan général de l'Usine.

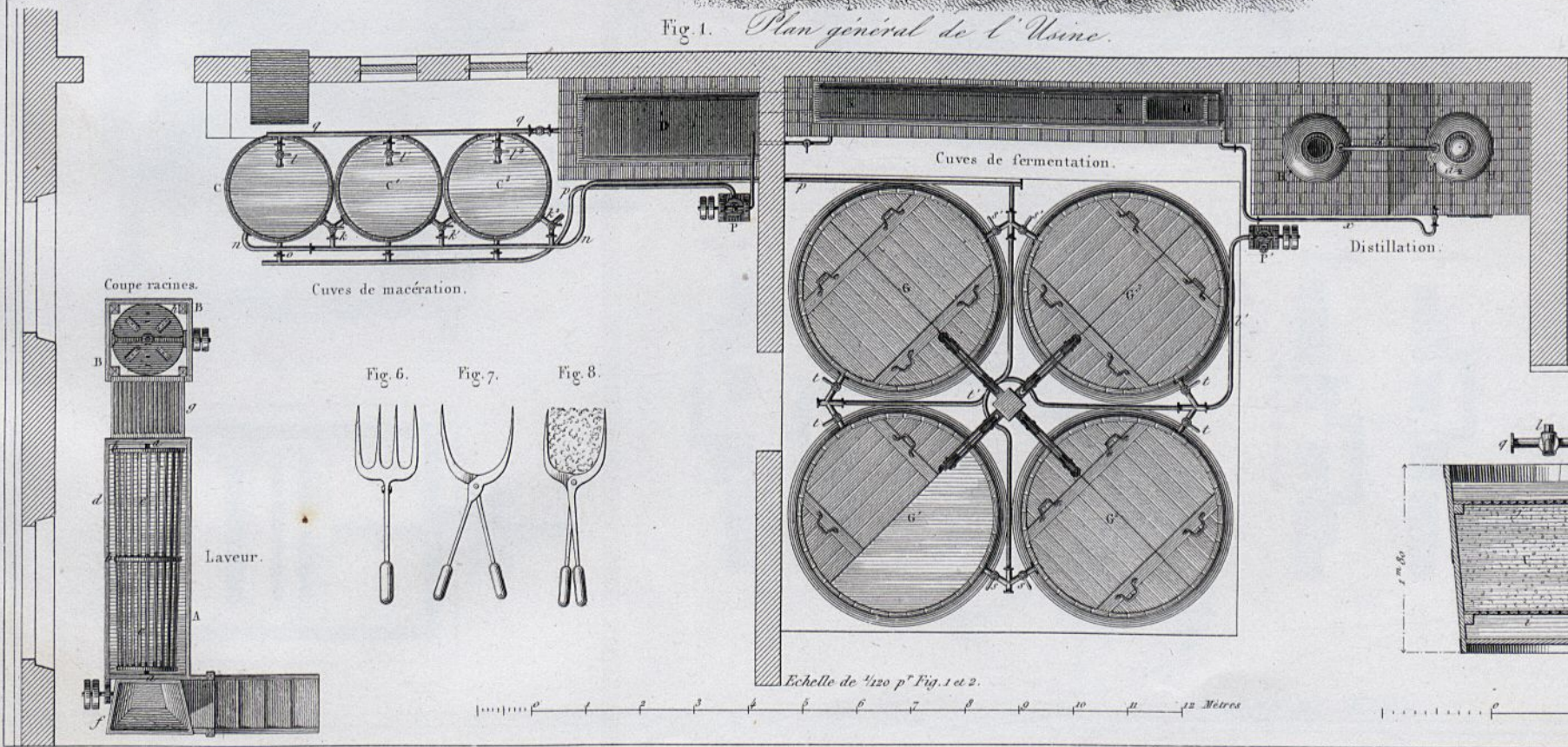
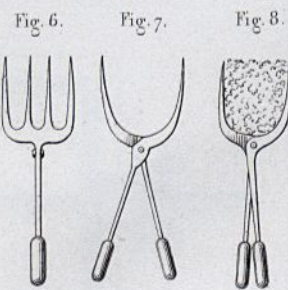
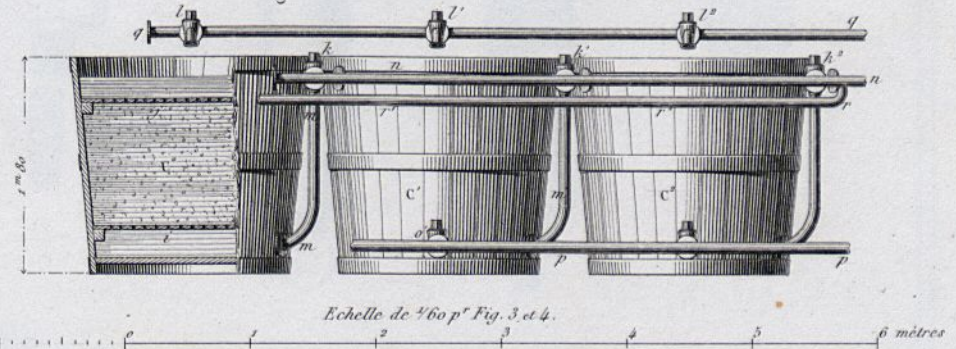
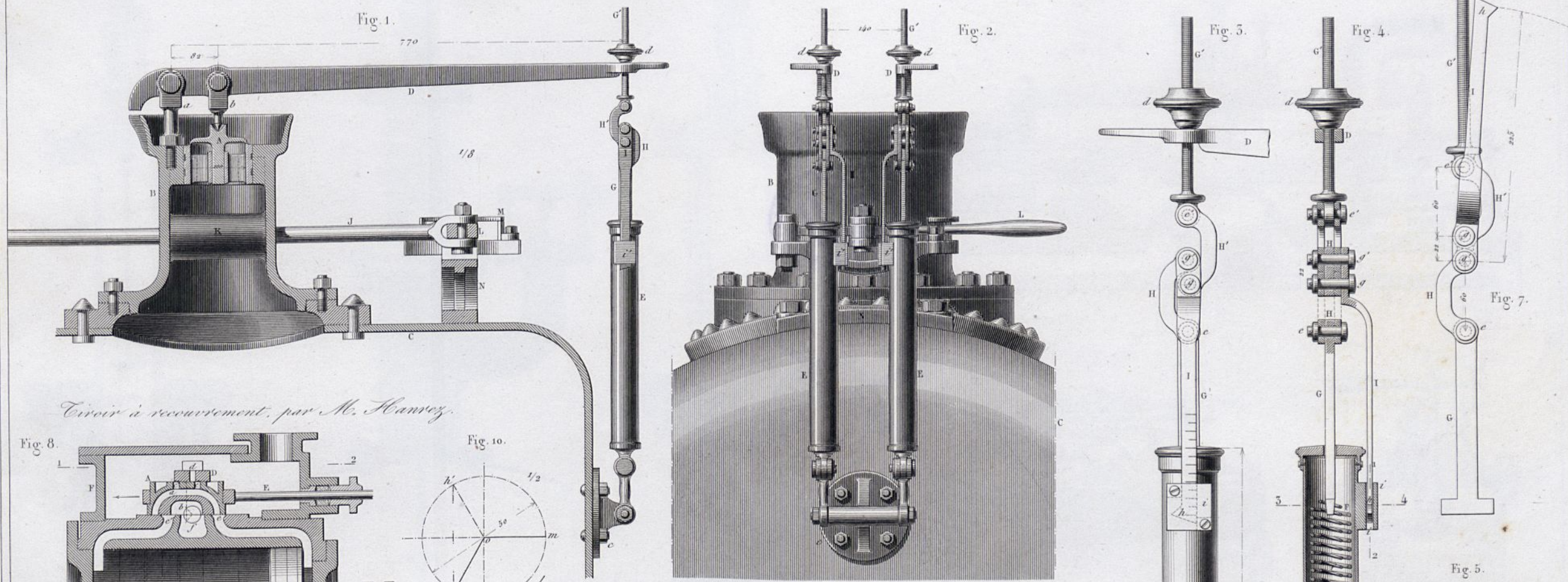


Fig. 3. Cuves de macération.





*Balance à échappement instantané, par M. M. Lemonnier & Vallée.*



*Circuit à recouvrement, par M. Hanvey.*

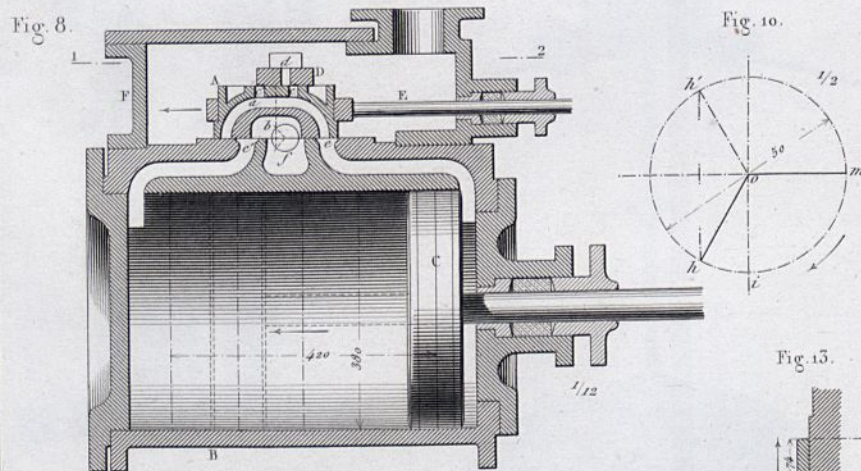
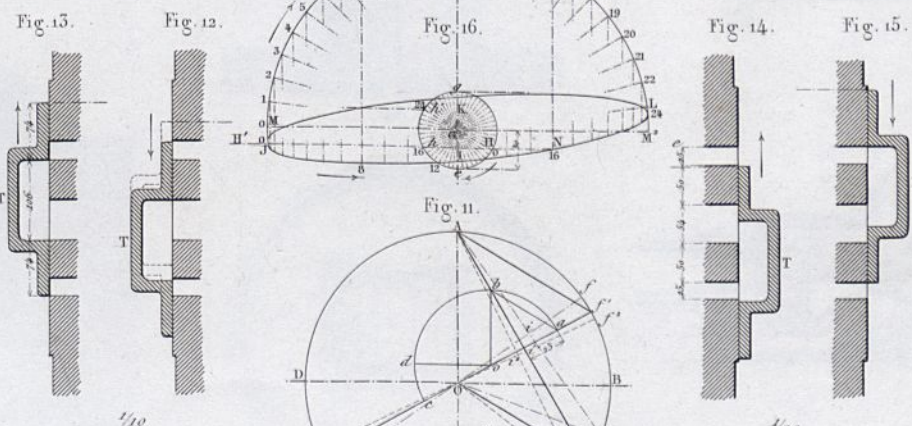
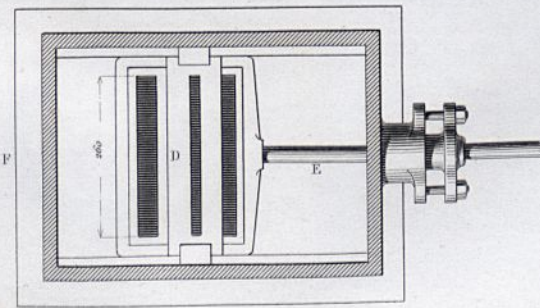
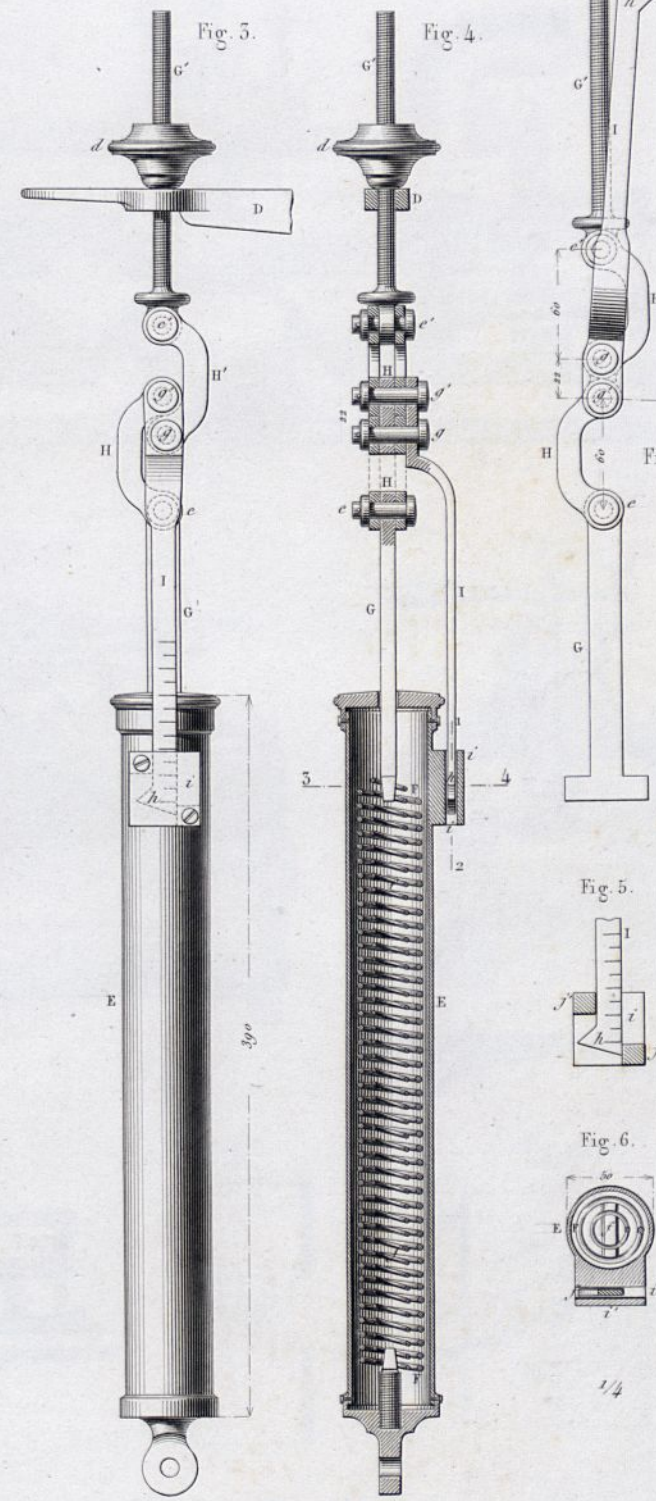


Fig. 9.



*Tracé pour déterminer les dimensions du tévier à détente fixe, par M. Valet.*





*Indicateur magnétique, par M. Lethuillier.*

*Tiroir variable, par M. Georges.*

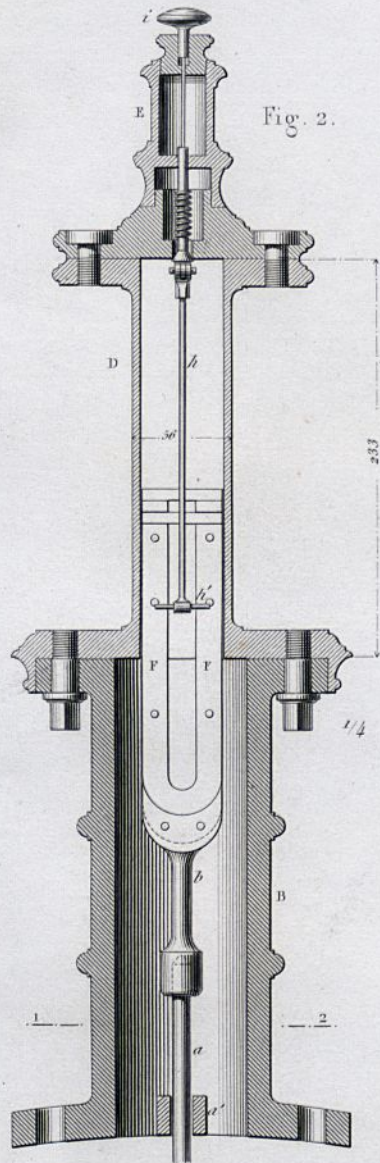


Fig. 2.

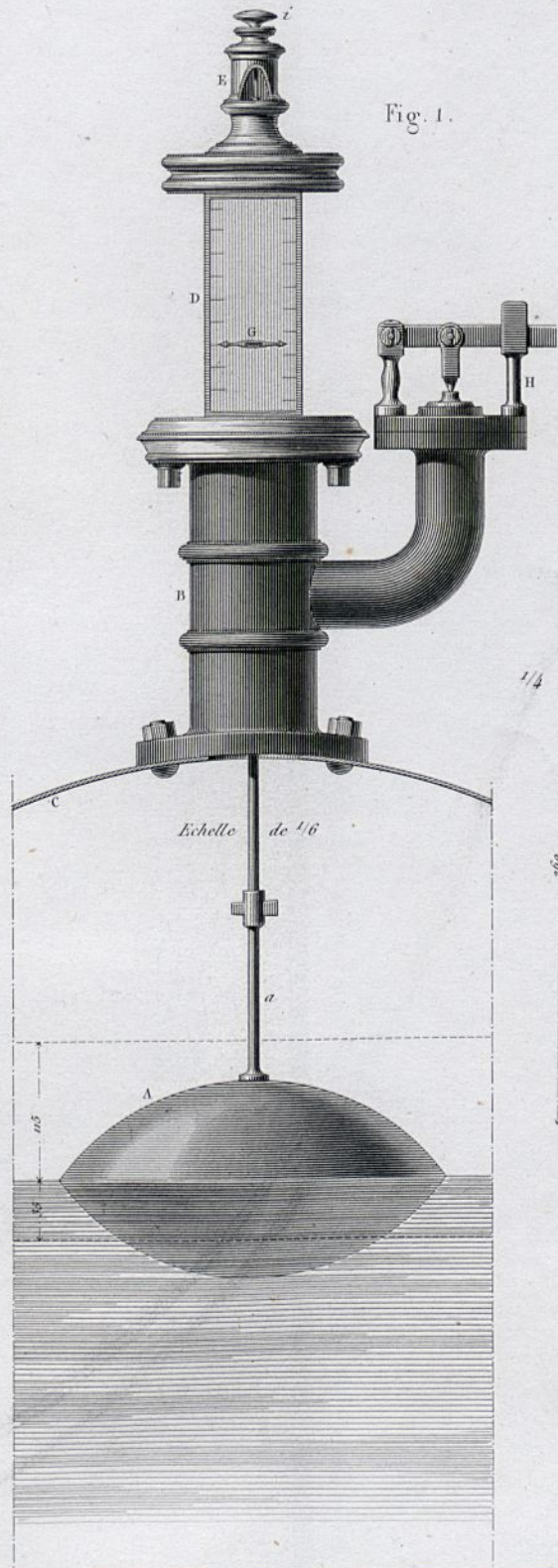


Fig. 1.

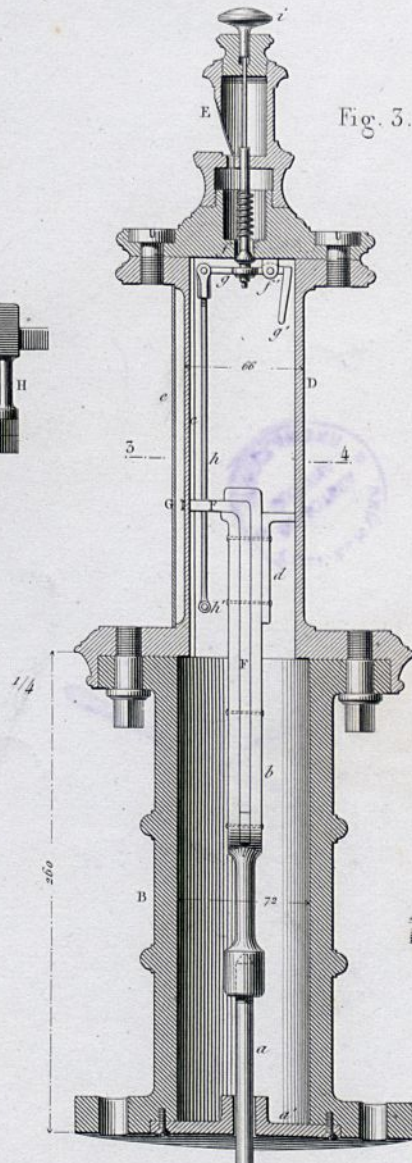


Fig. 3.

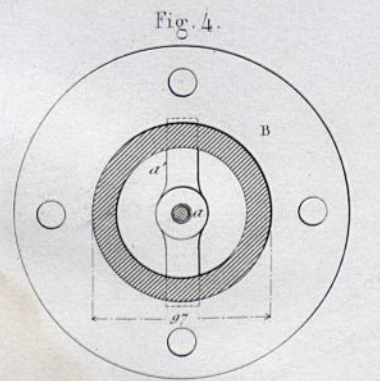


Fig. 4.

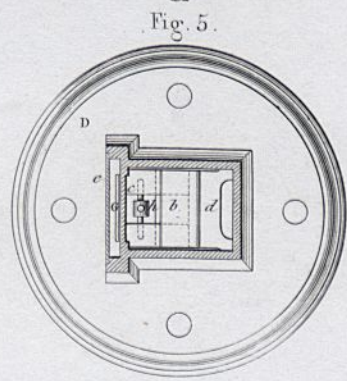


Fig. 5.

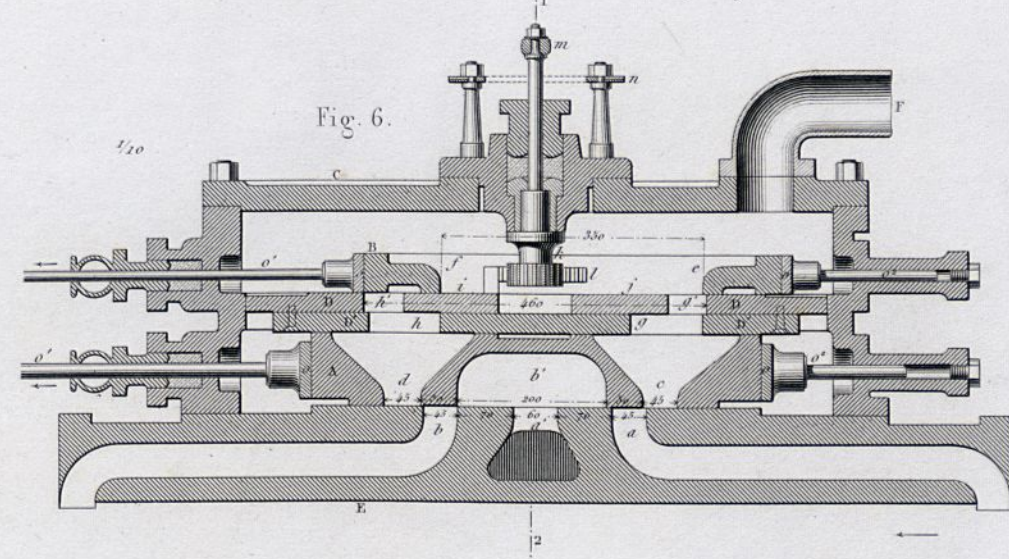


Fig. 6.

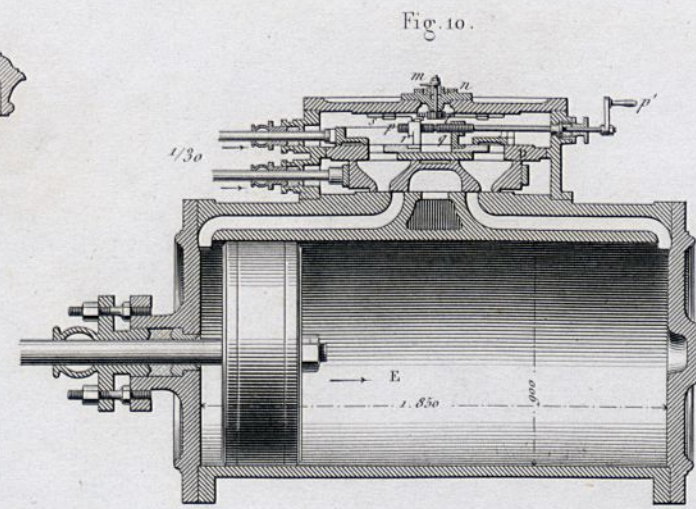


Fig. 10.

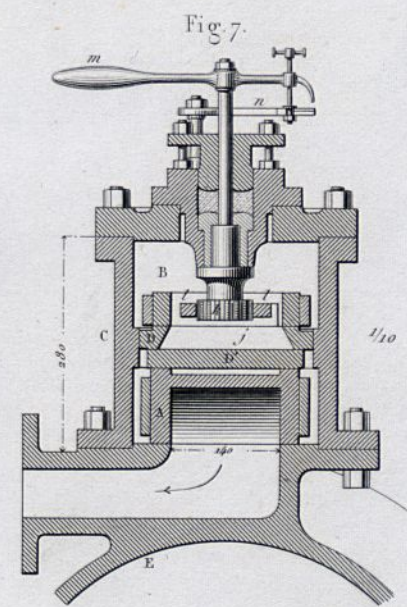


Fig. 7.

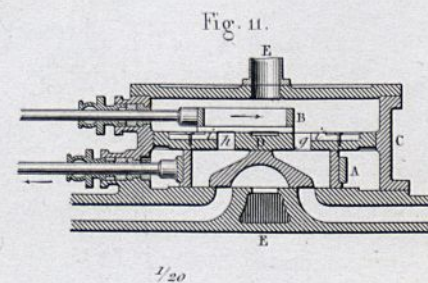


Fig. 11.

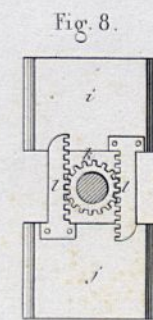


Fig. 8.

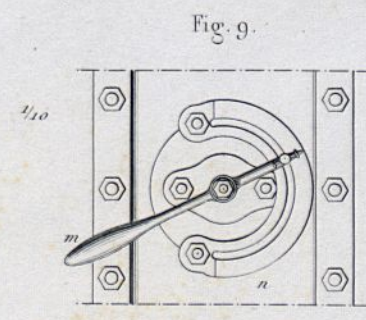
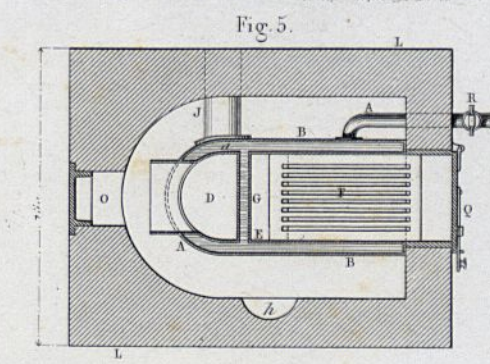
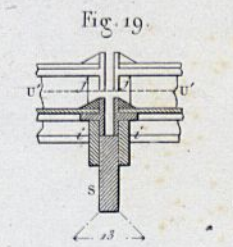
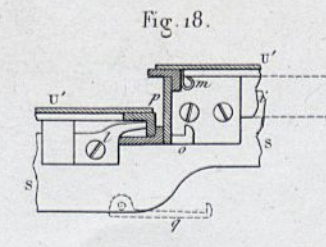
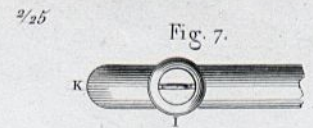
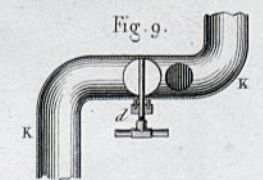
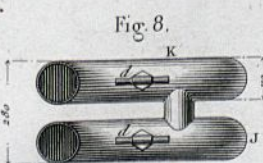
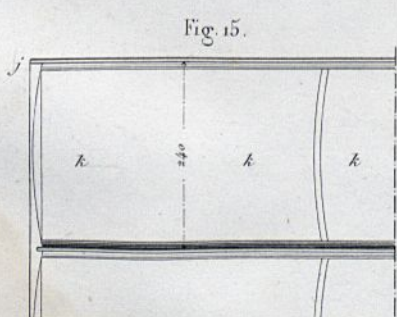
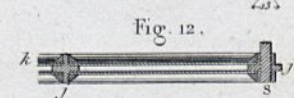
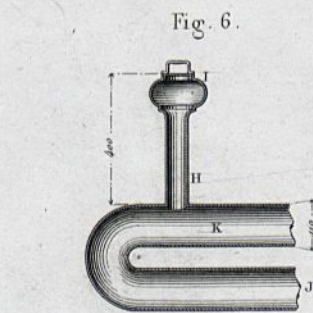
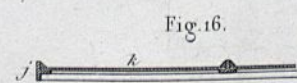
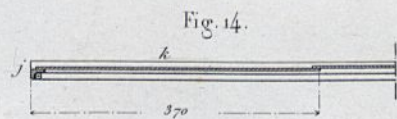
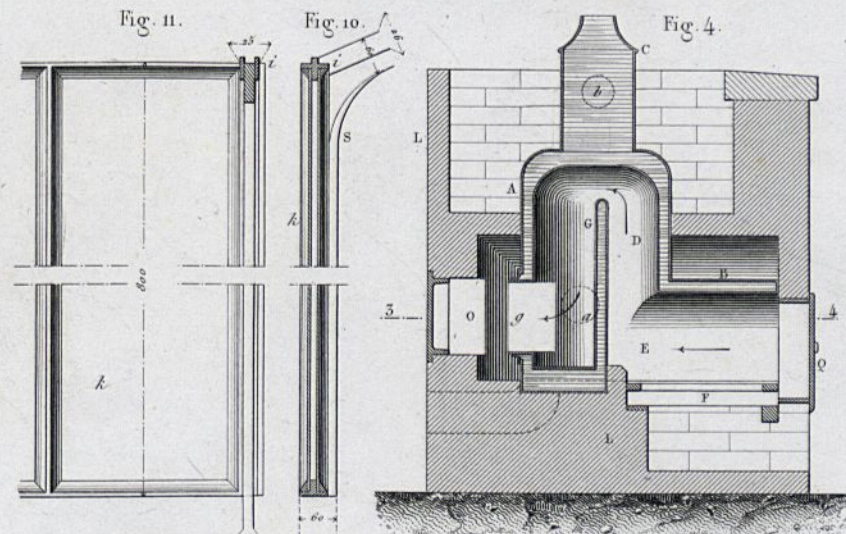
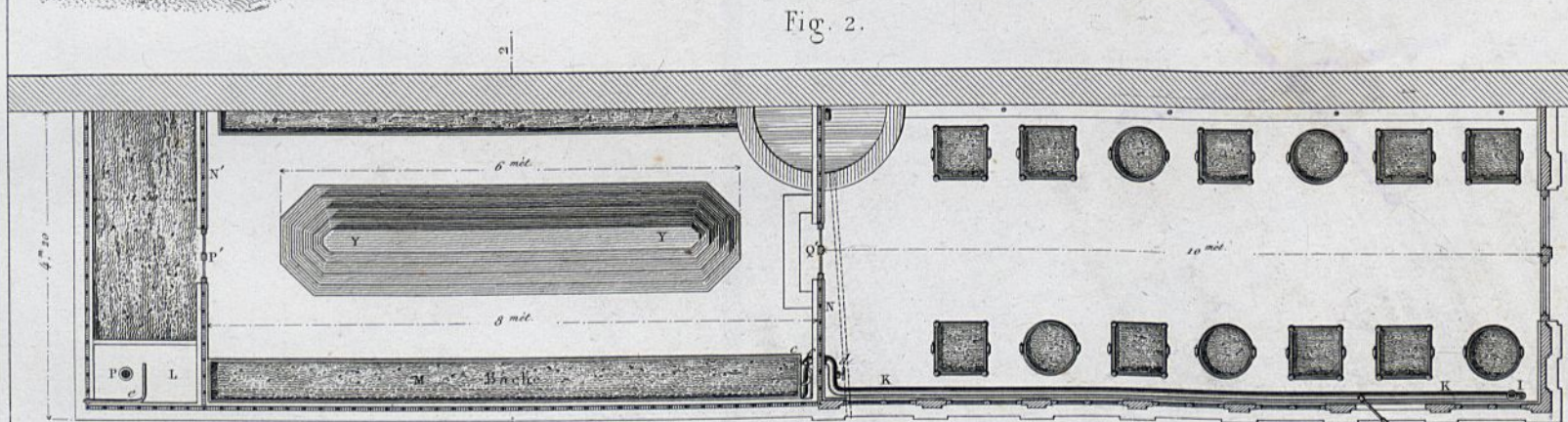
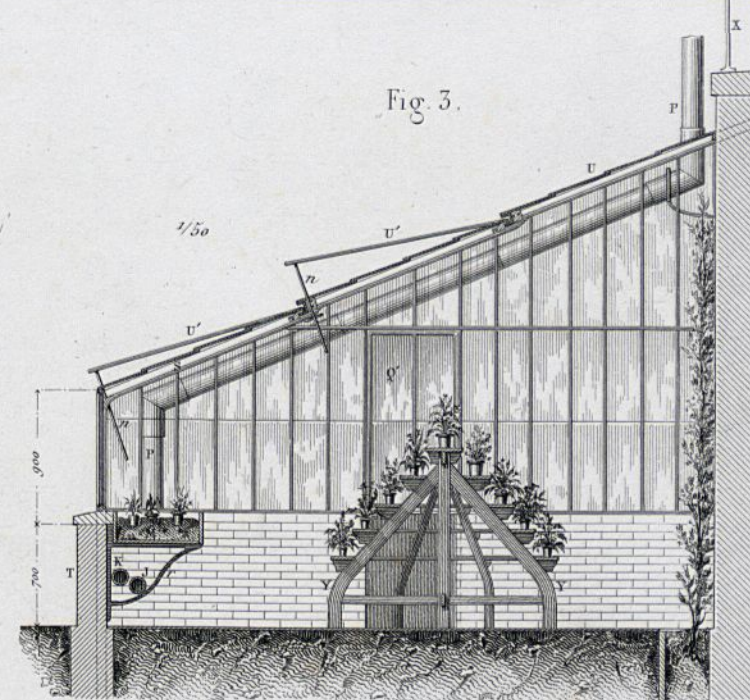
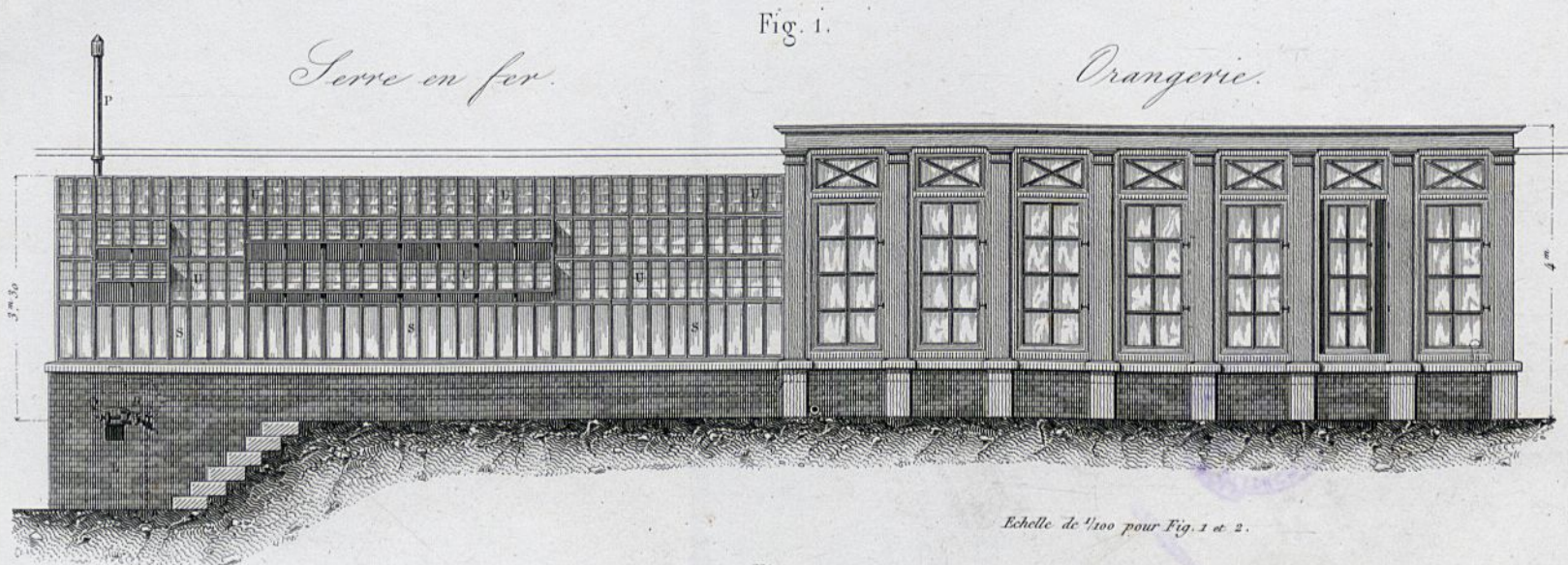


Fig. 9.



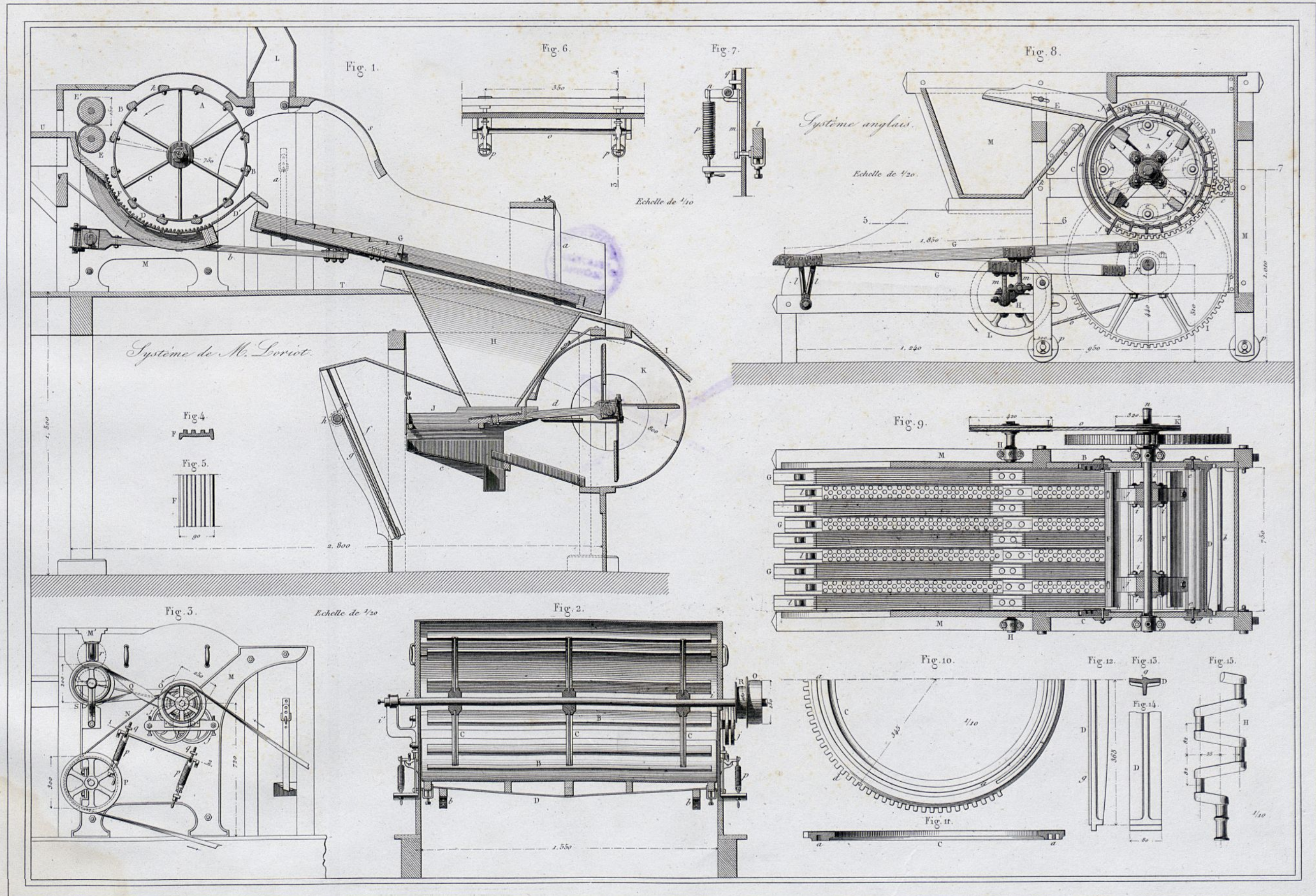


























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