

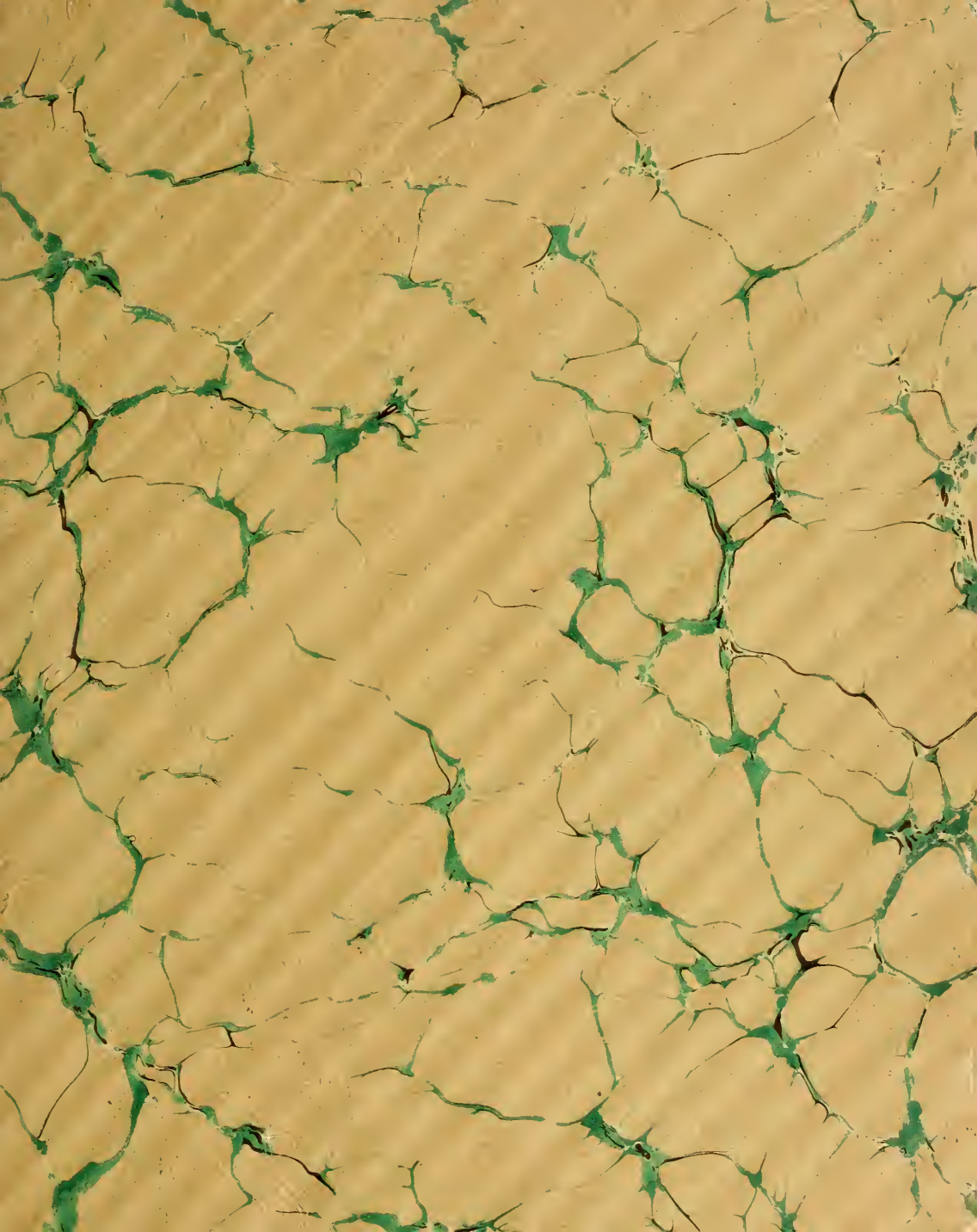
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TRAITÉ

DE

GÉOMÉTRIE DESCRIPTIVE,

Antoine Paré Villars
PAR JULES DE LA GOURNERIE,

MEMBRE DE L'INSTITUT, INSPECTEUR GÉNÉRAL DES PONTS ET CHAUSSÉES,
EXAMINATEUR DE SORTIE A L'ÉCOLE POLYTECHNIQUE,
PROFESSEUR DE GÉOMÉTRIE DESCRIPTIVE AU CONSERVATOIRE DES ARTS ET MÉTIERS.

Les Mathématiques ont des inventions très subtiles, et qui peuvent beaucoup servir tant à contenter les curieux qu'à faciliter tous les arts et diminuer le travail des hommes.

DESCARTES (*Discours de la Méthode*).

SECONDE ÉDITION.

DEUXIÈME PARTIE. — ATLAS DE 52 PLANCHES.

PARIS,
GAUTHIER-VILLARS, IMPRIMEUR-LIBRAIRE
DE L'ÉCOLE POLYTECHNIQUE, DE L'ÉCOLE CENTRALE DES ARTS ET MANUFACTURES,
SUCCESSEUR DE MALLET-BACHELIER,
Quai des Augustins, 55.

1880

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AVERTISSEMENT.

Les tailles ou hachures que l'on voit sur un grand nombre de figures ont différentes significations. Sur les quinze premières Planches, elles indiquent des ombres propres ou des ombres portées.

Les *Planches XXIV, XXV, XXVI et XXVII* sont consacrées à l'étude d'une surface d'ombre. La partie de cette surface qui limite l'ombre est indiquée par des hachures. Sur la *fig. 254*, les hachures indiquent l'étendue occupée par l'ombre dans une section de la surface.

Les surfaces représentées sont, en général, considérées comme reconstruant des corps : on a mis des hachures sur les sections planes auxquelles ces corps sont limités. Par exception, les surfaces représentées sur les *fig. 288, 306, 307, 310 et 311* sont considérées comme de simples feuilles ; pour distinguer leurs deux faces, on a supposé que l'une était blanche et l'autre noire : cette dernière est indiquée par des hachures.

Sur la *fig. 194*, des tailles ont été mises sur la partie coupée du mur de la cheminée. Aux *fig. 272 et 273*, la section du terrain est indiquée par de petites tailles.

Sur les figures consacrées à la démonstration des théorèmes et à l'explication des constructions, on ne considère sur les surfaces que les lignes représentées, et, par suite, les parties de ces lignes qui ne dépassent pas les plans coordonnés sont toujours en trait plein. A cette catégorie appartiennent les *fig. 237, 242, 243, 244, 264, 276, 282, 296, 297, 300, 302, 303, 305, 317, 318 et 319*.

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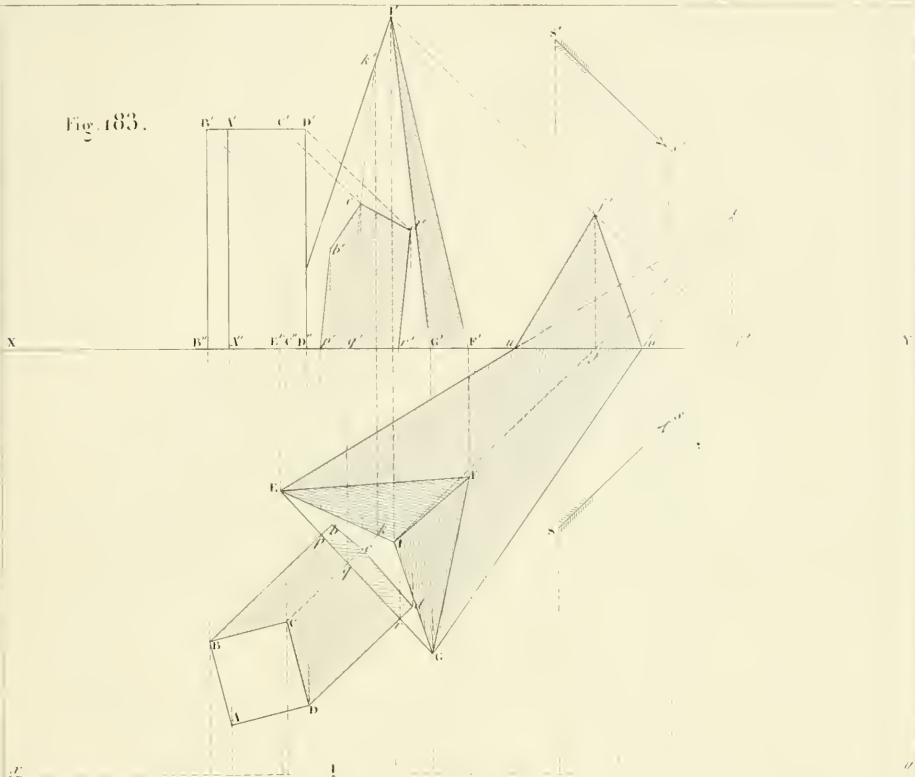


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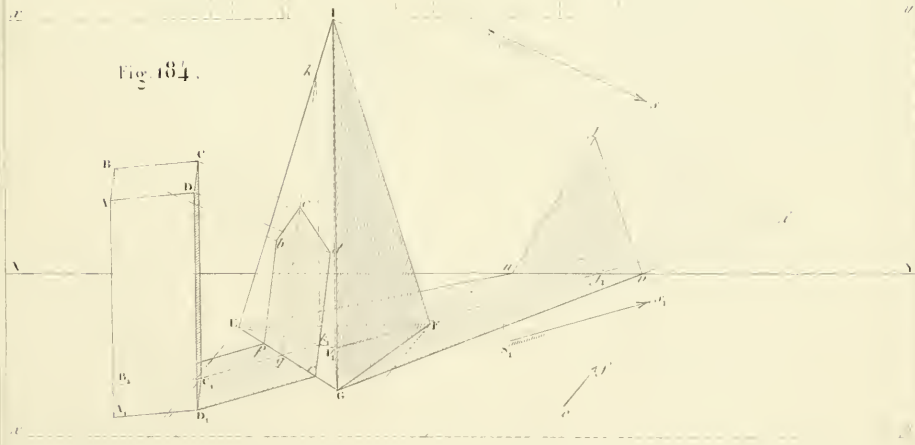


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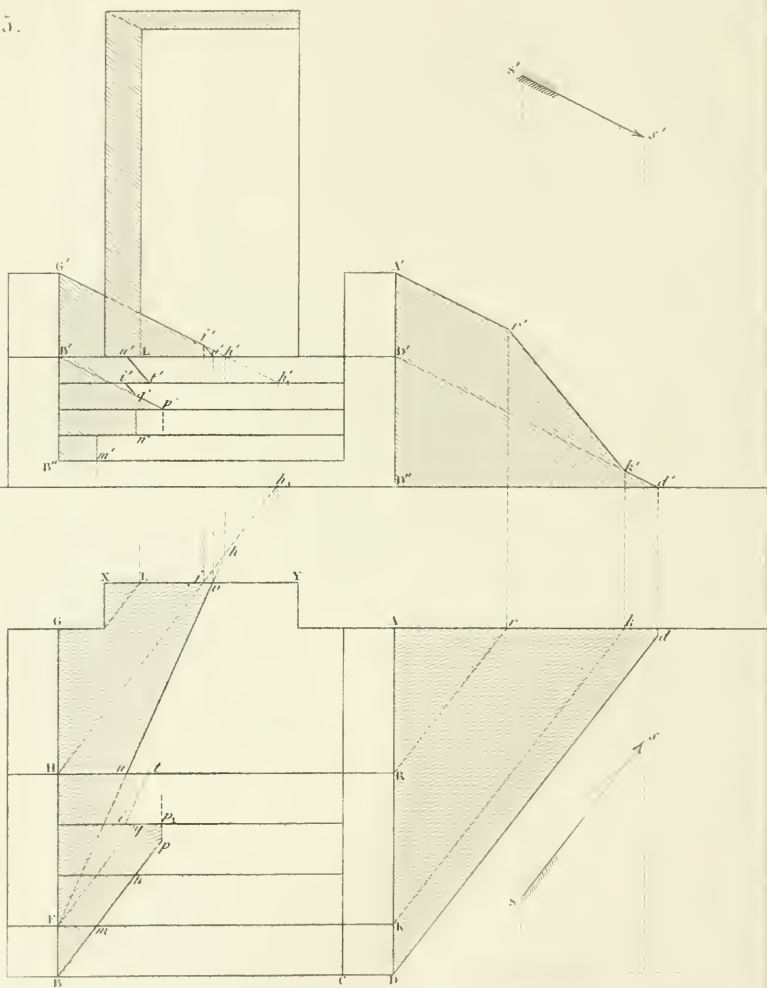


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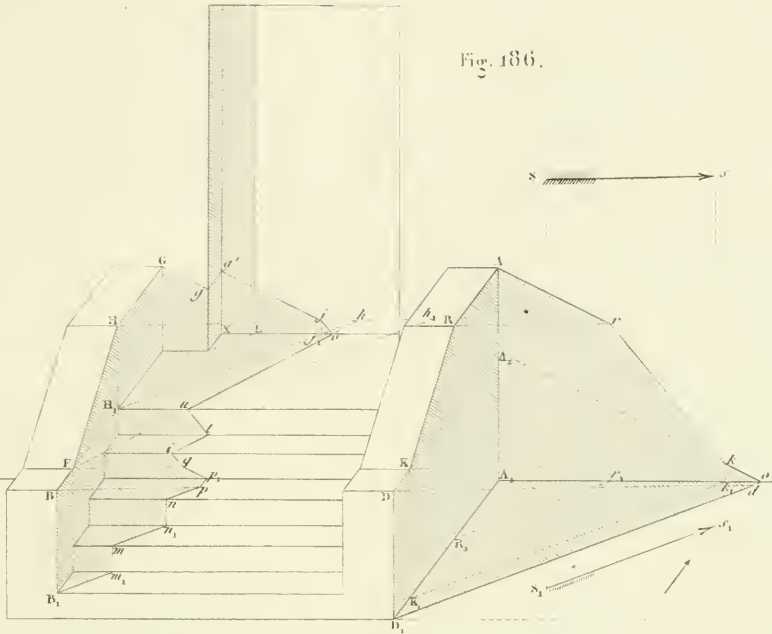


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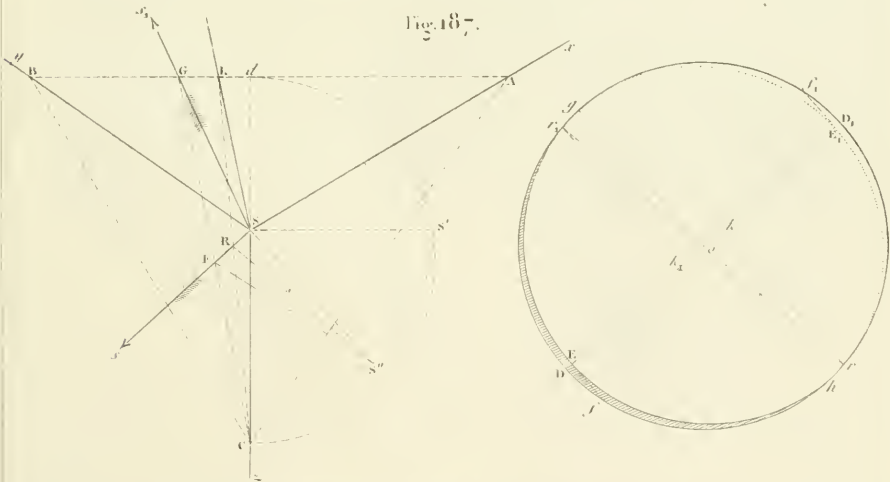


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Fig. 190.

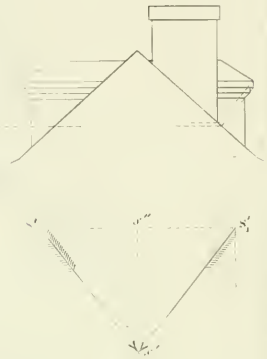
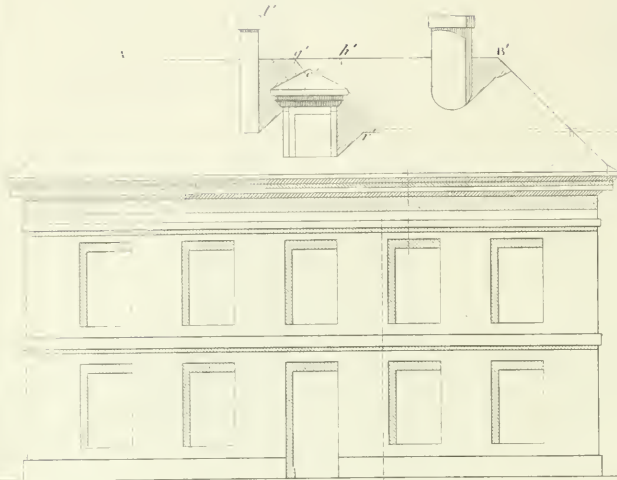


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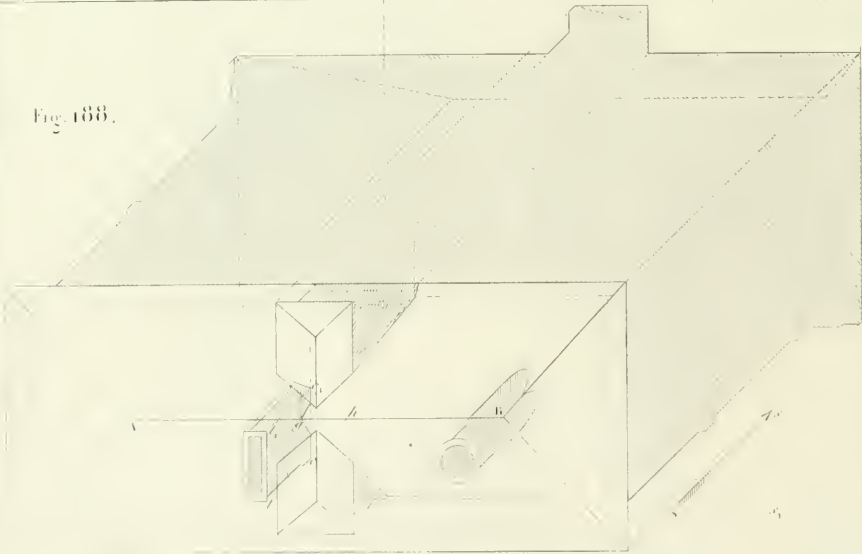


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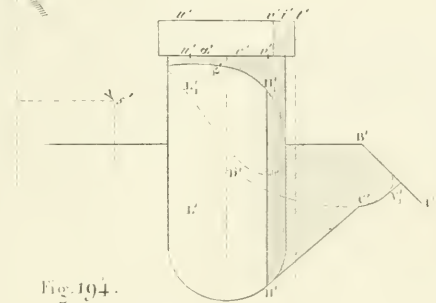


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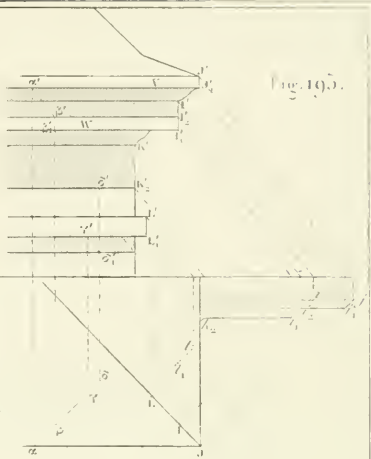


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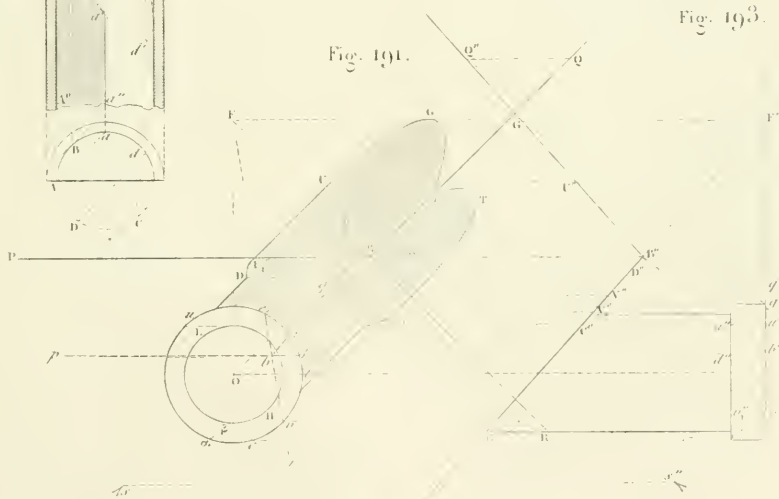


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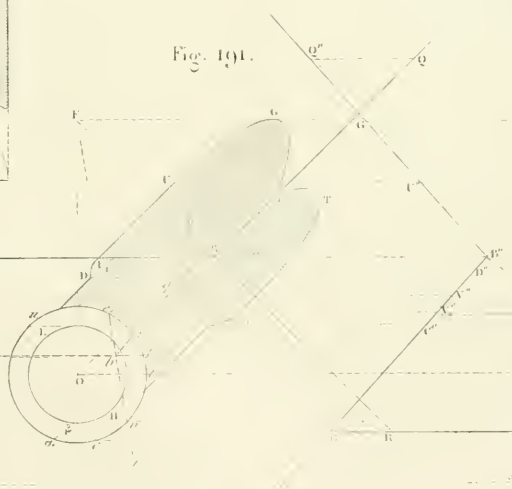


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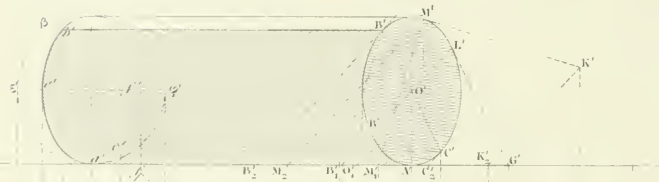


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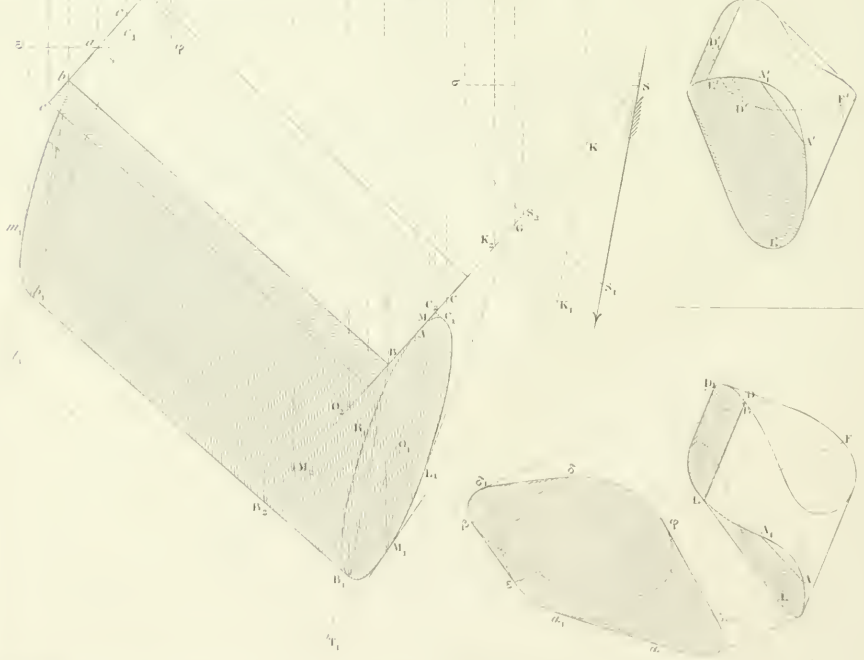


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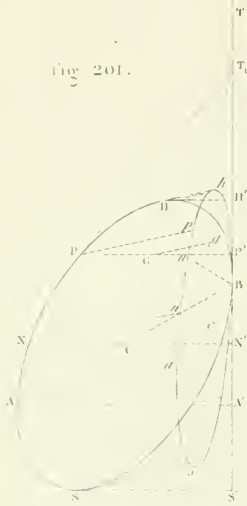


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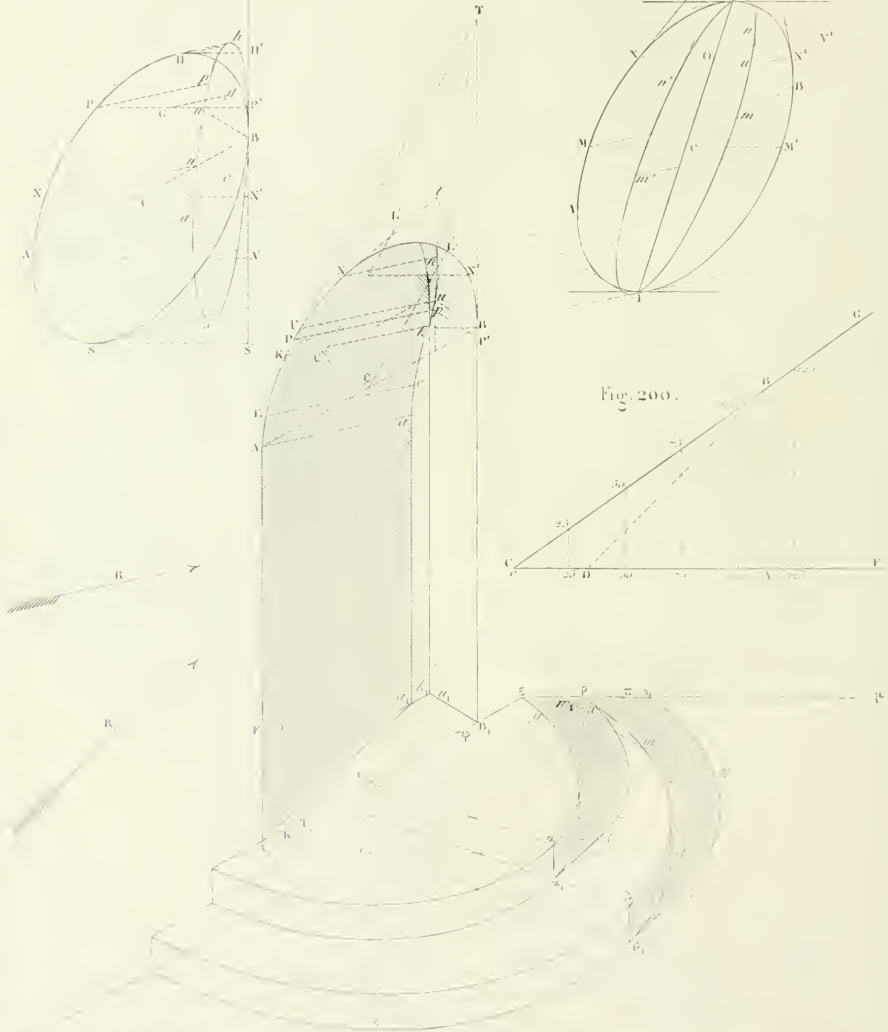


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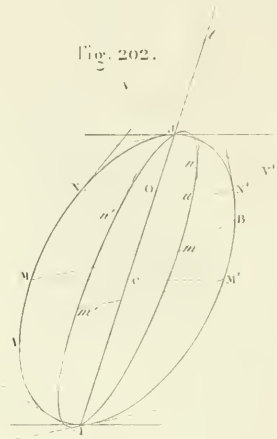


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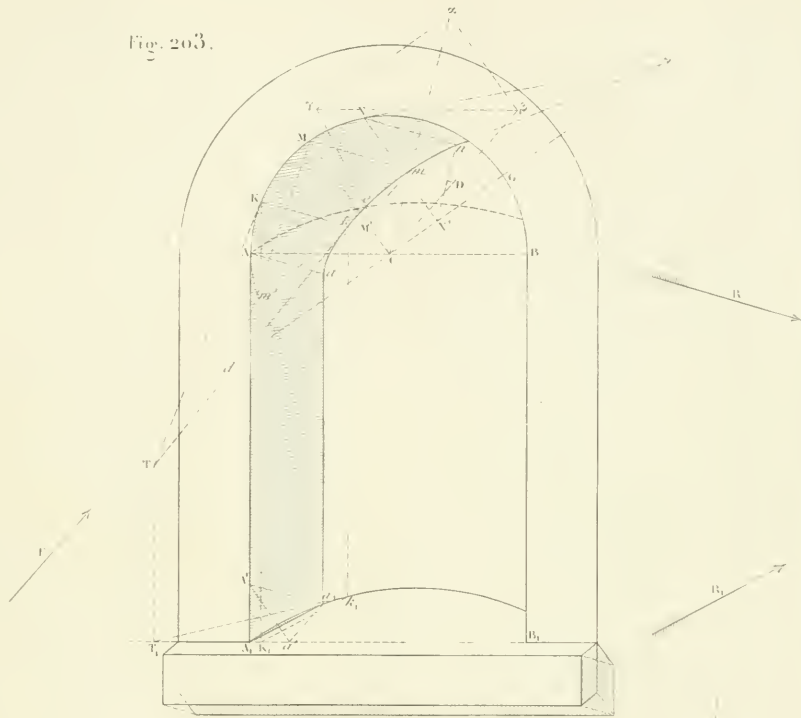


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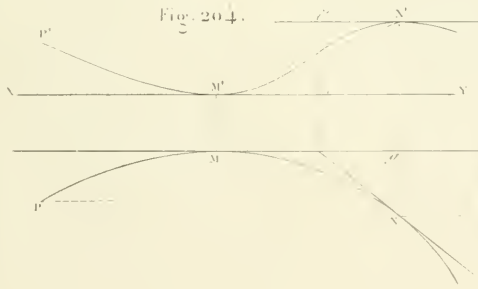


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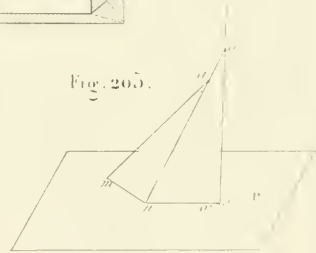


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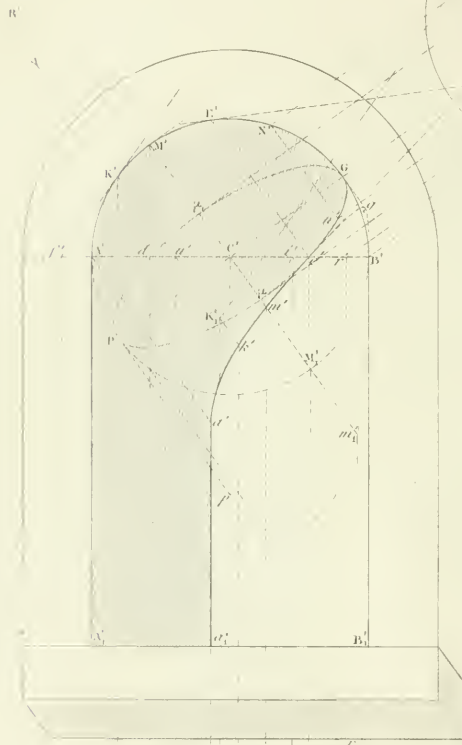


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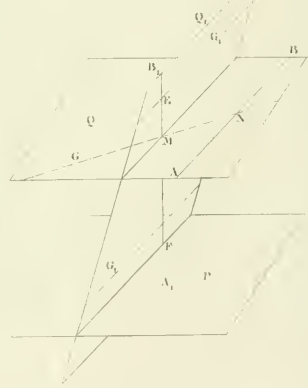
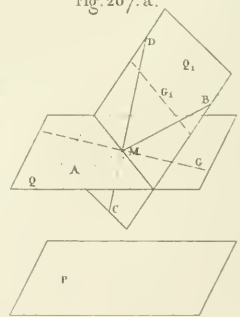


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b.

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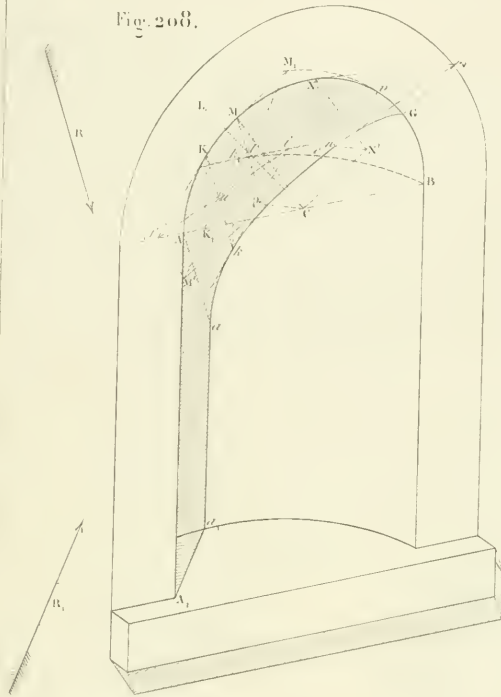


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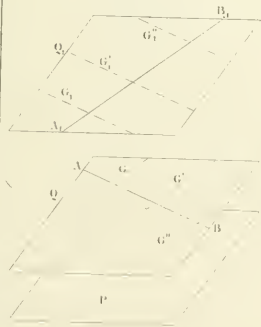


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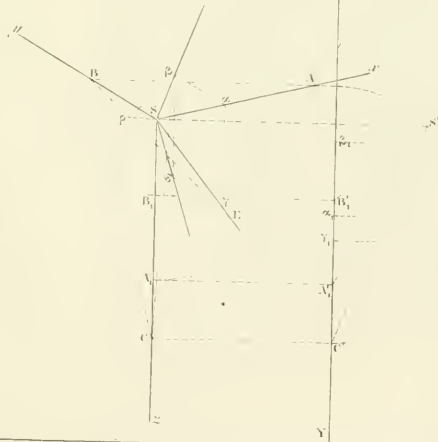


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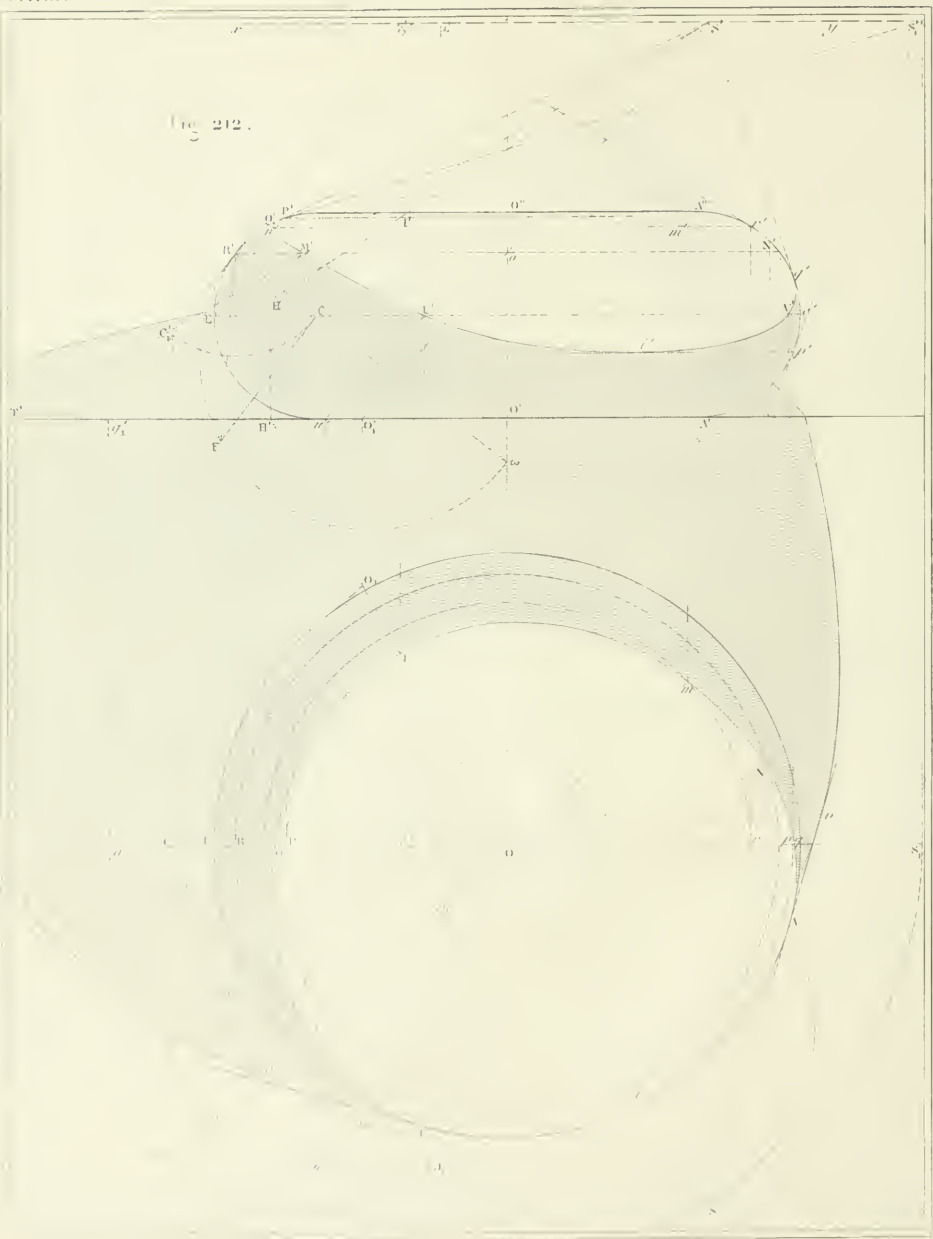


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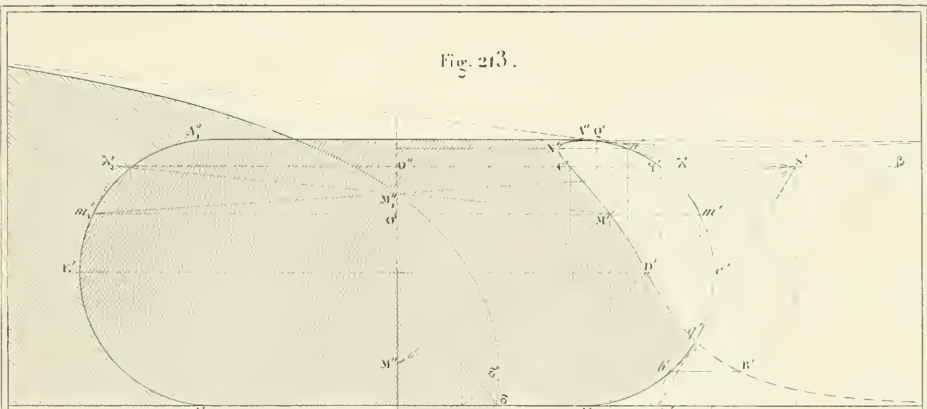


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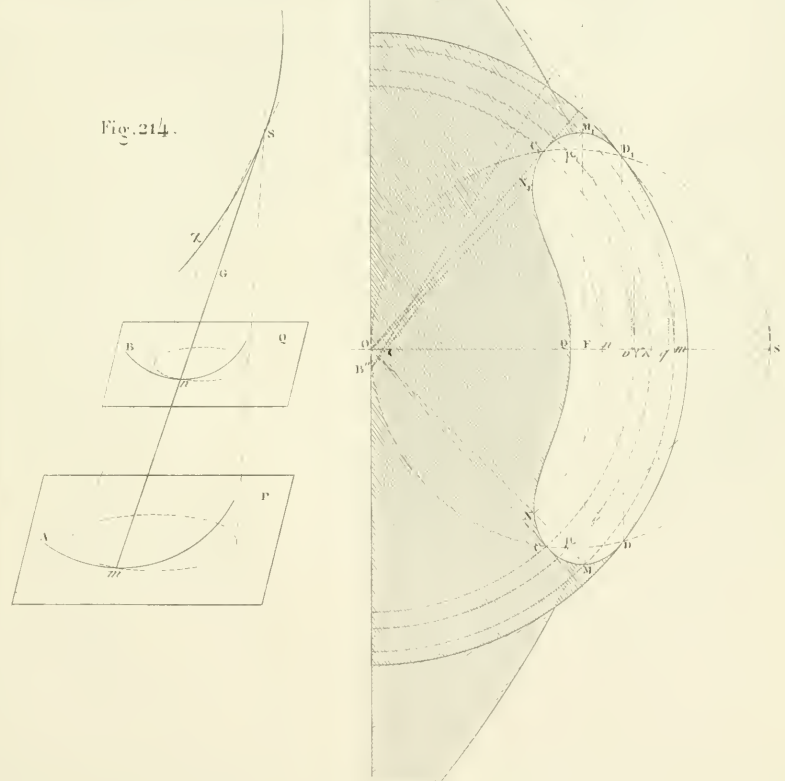


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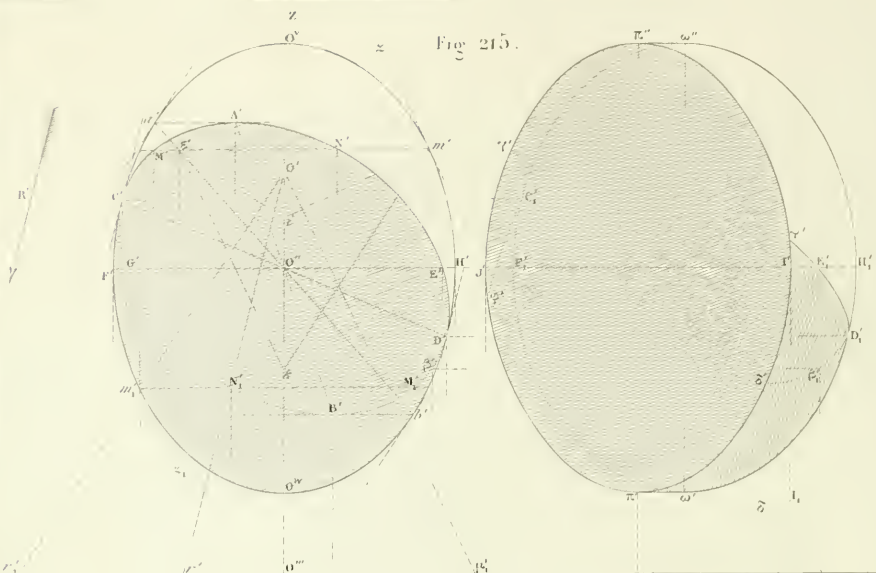


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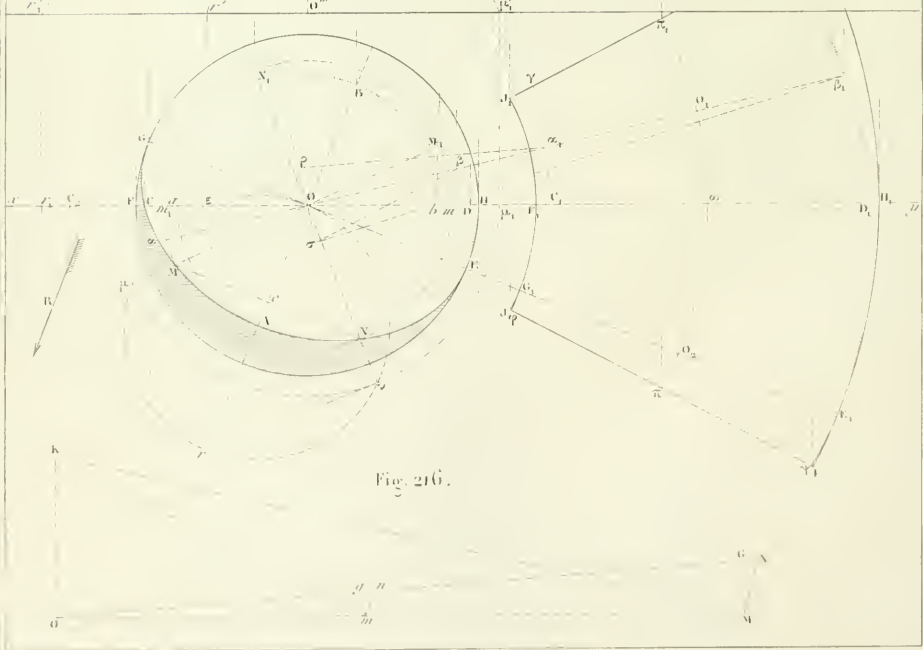


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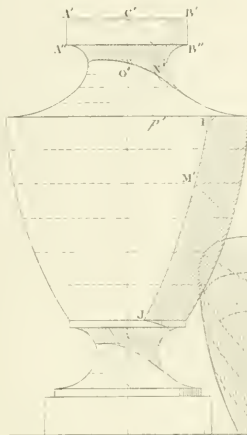


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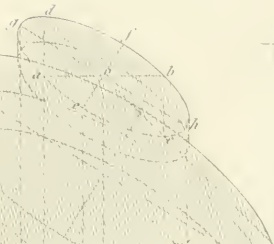
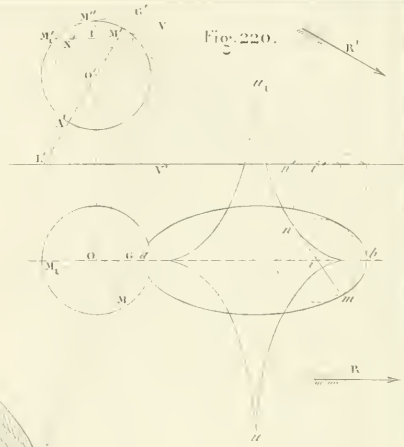


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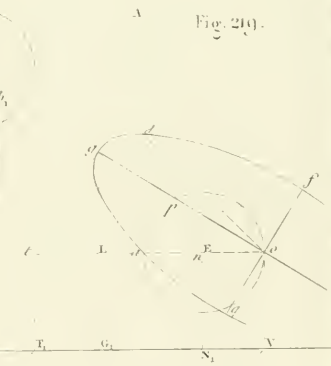


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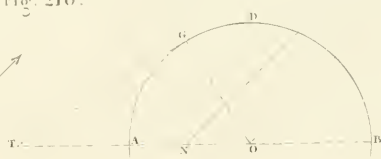
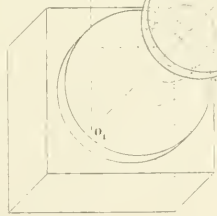


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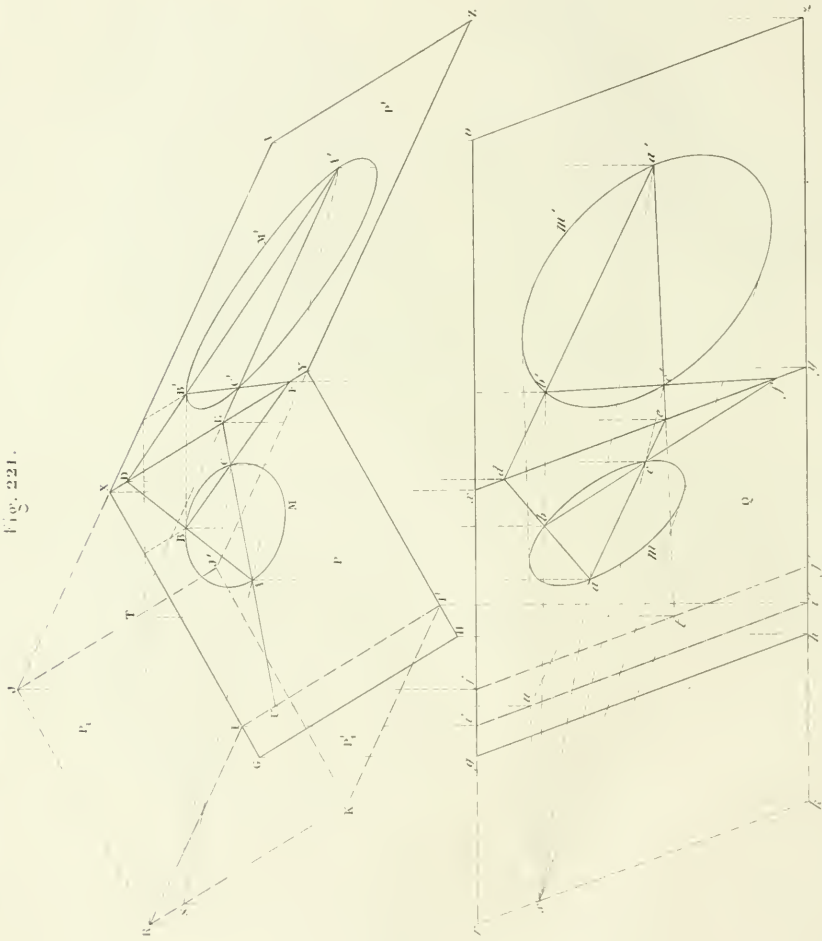


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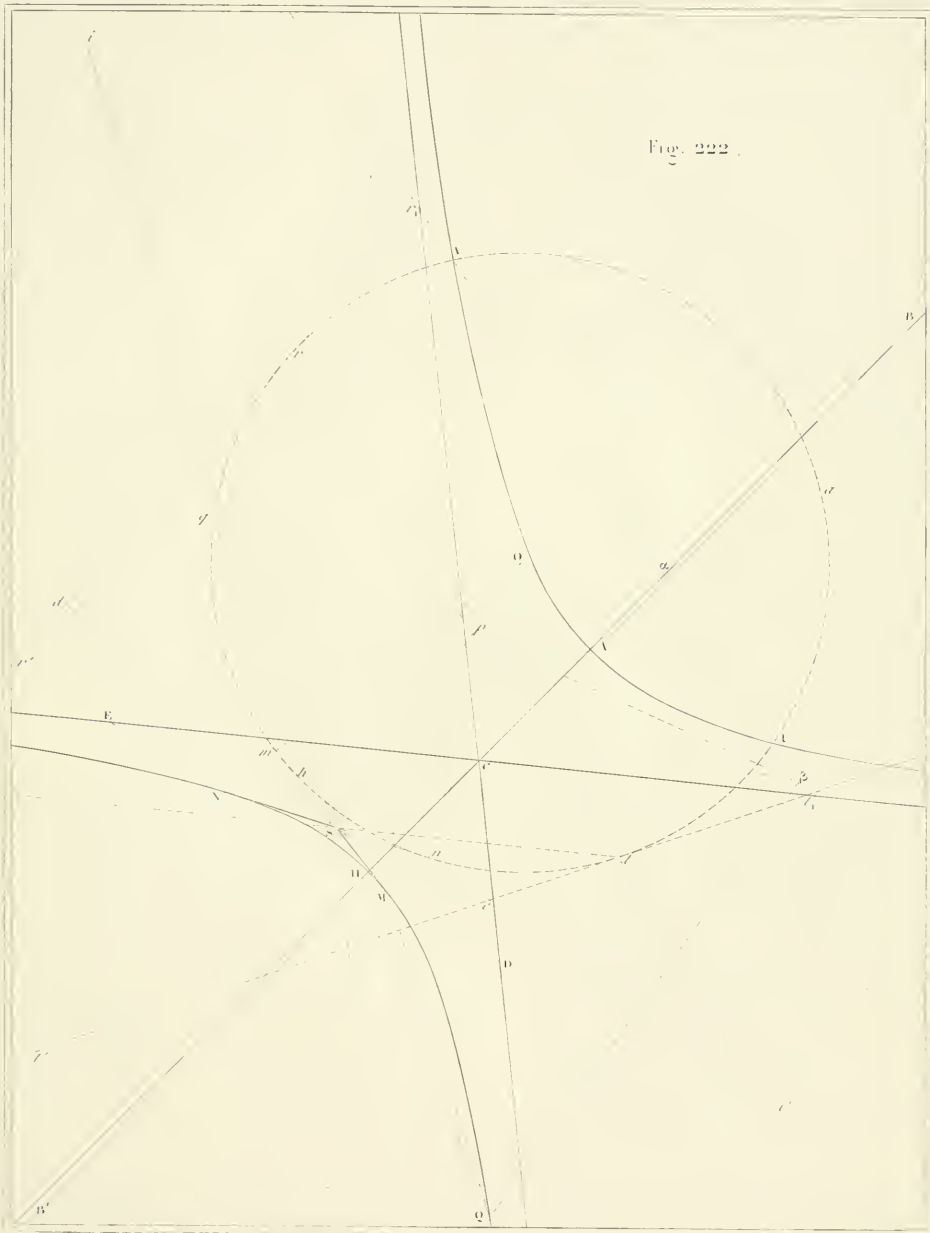


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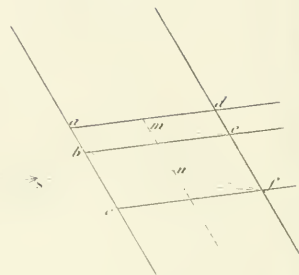
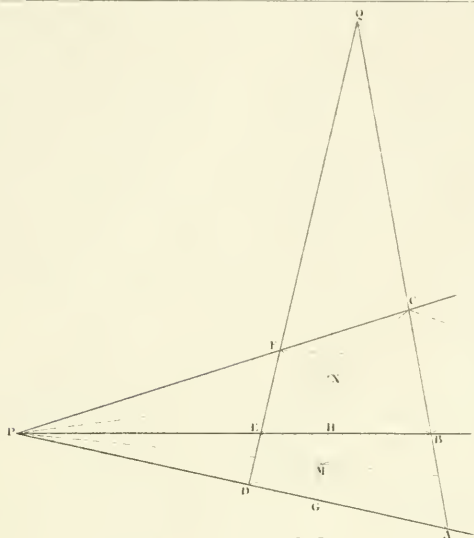


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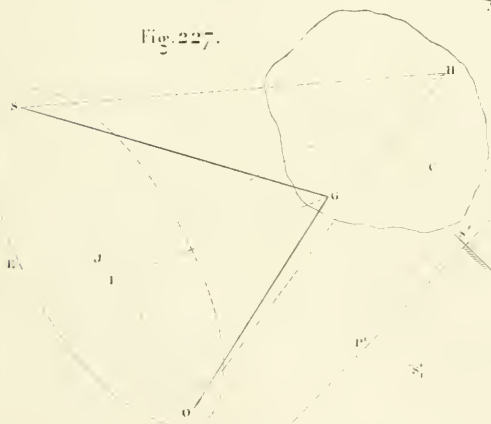
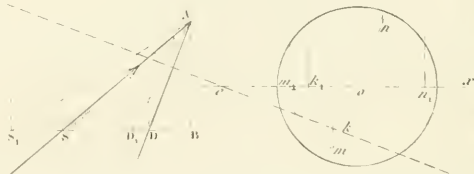
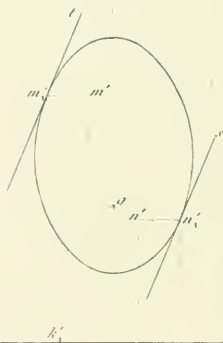


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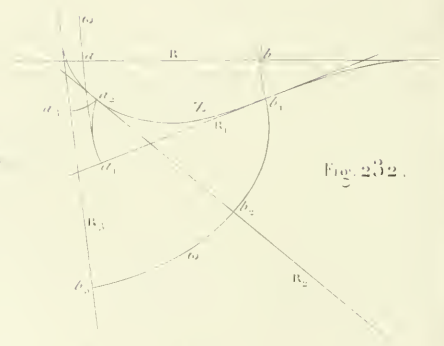
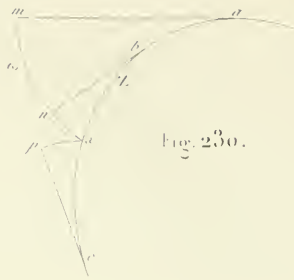


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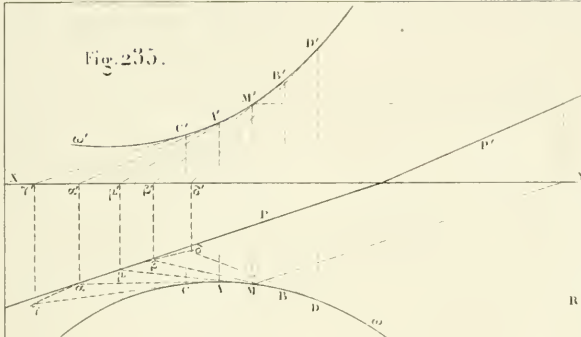


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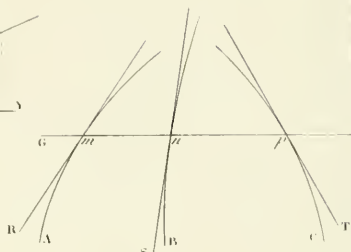


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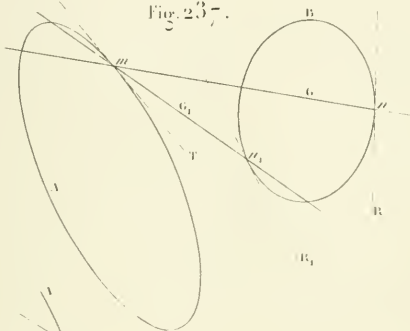


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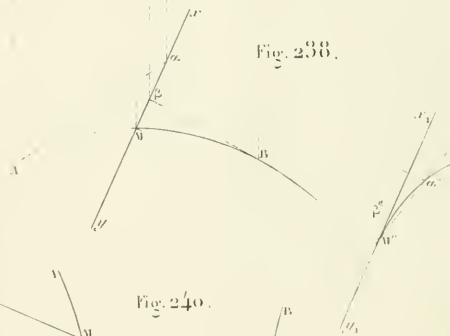


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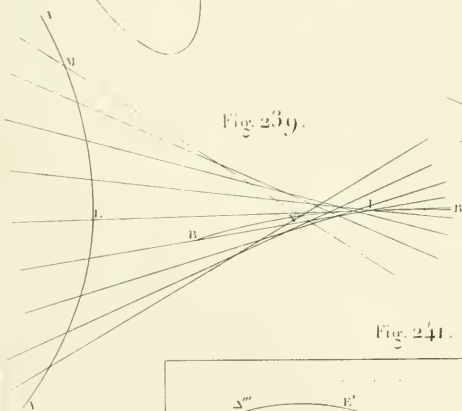


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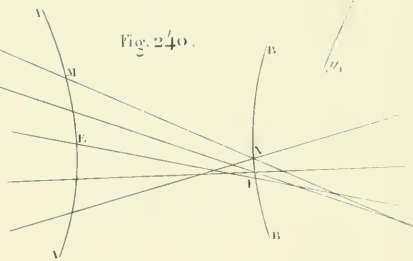


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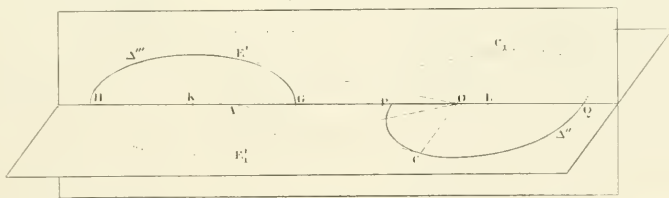


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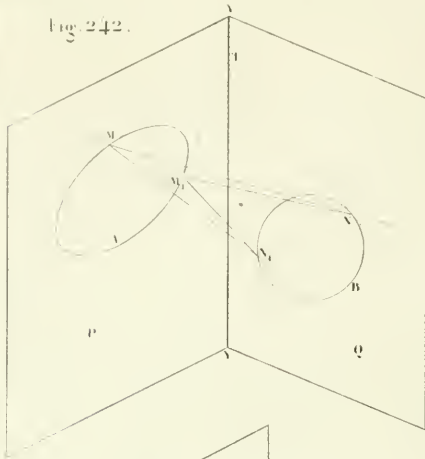


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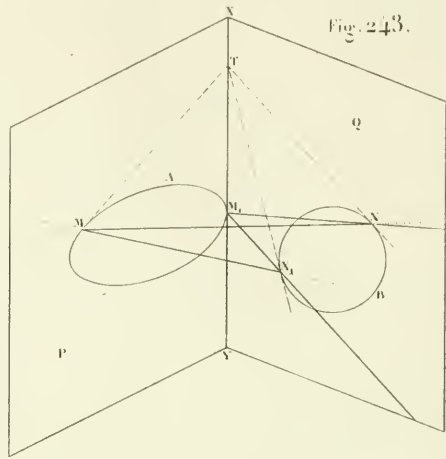


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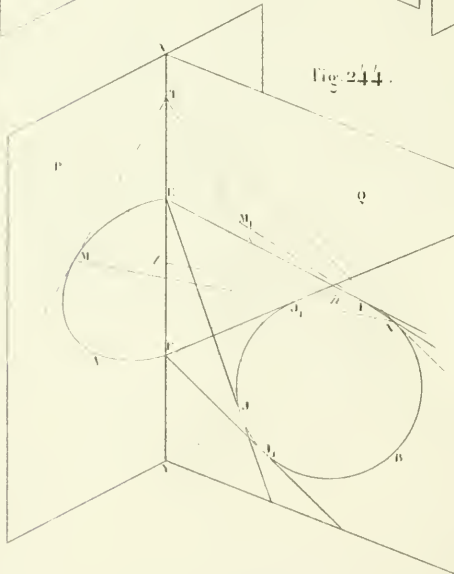


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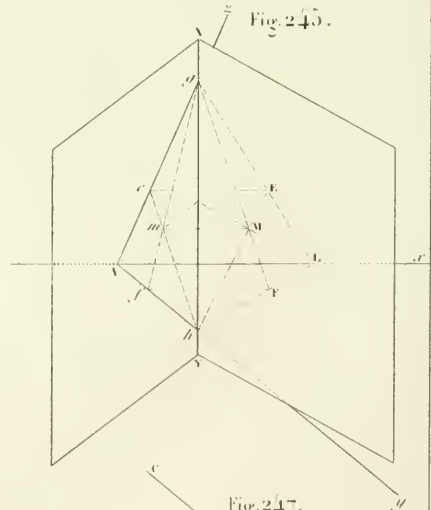


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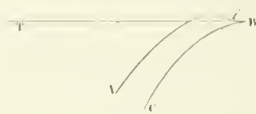


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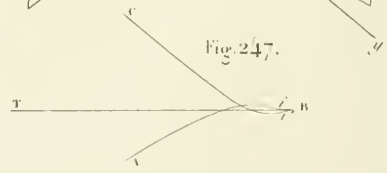


Fig. 248.



Fig. 249.

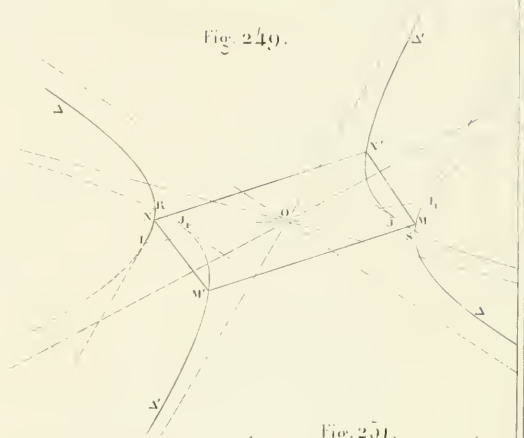


Fig. 250.

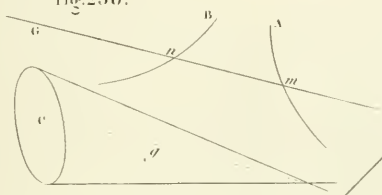


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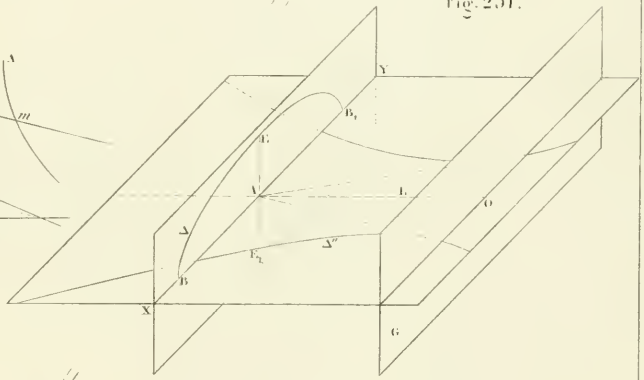


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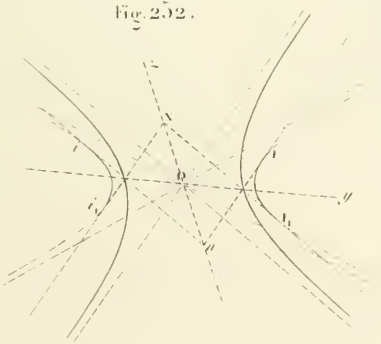


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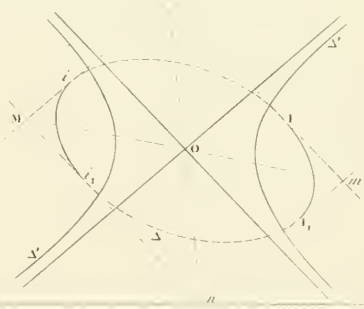


Fig. 254.



Fig. 255.

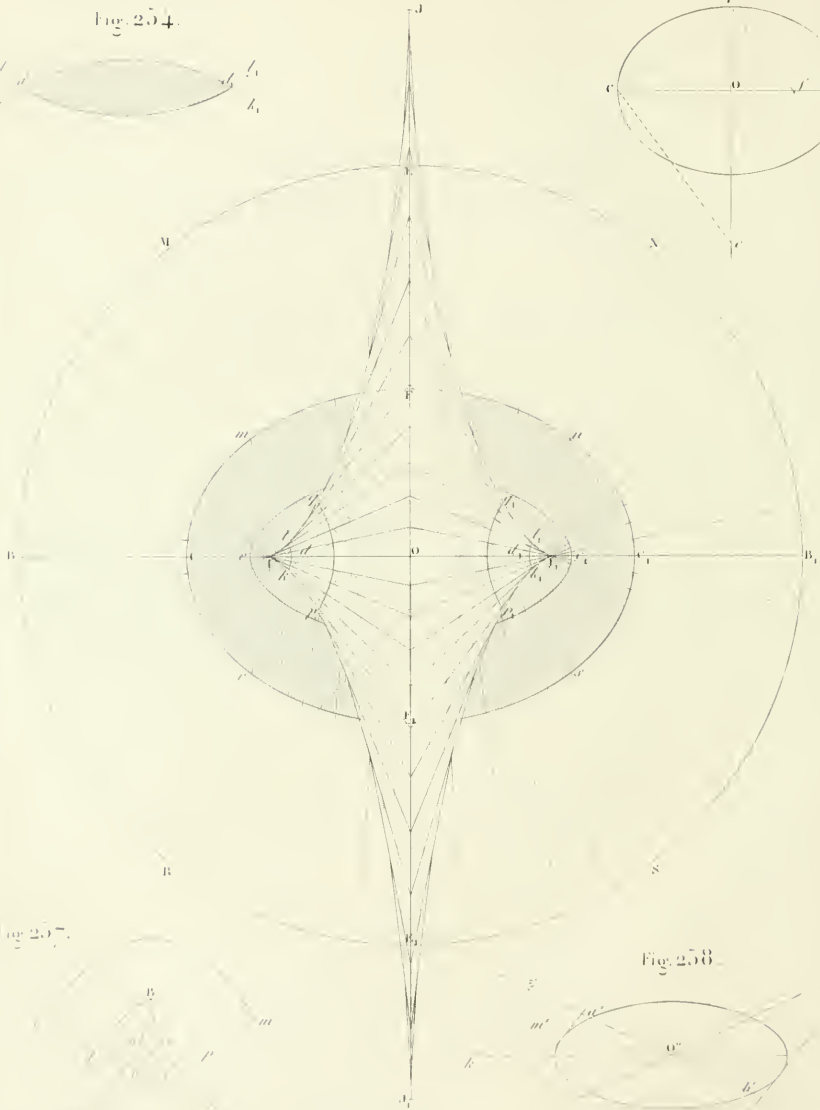


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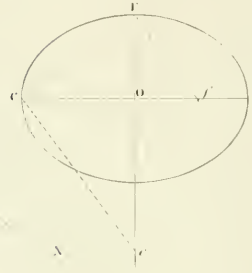


Fig. 257.



Fig. 258.



Fig. 259.

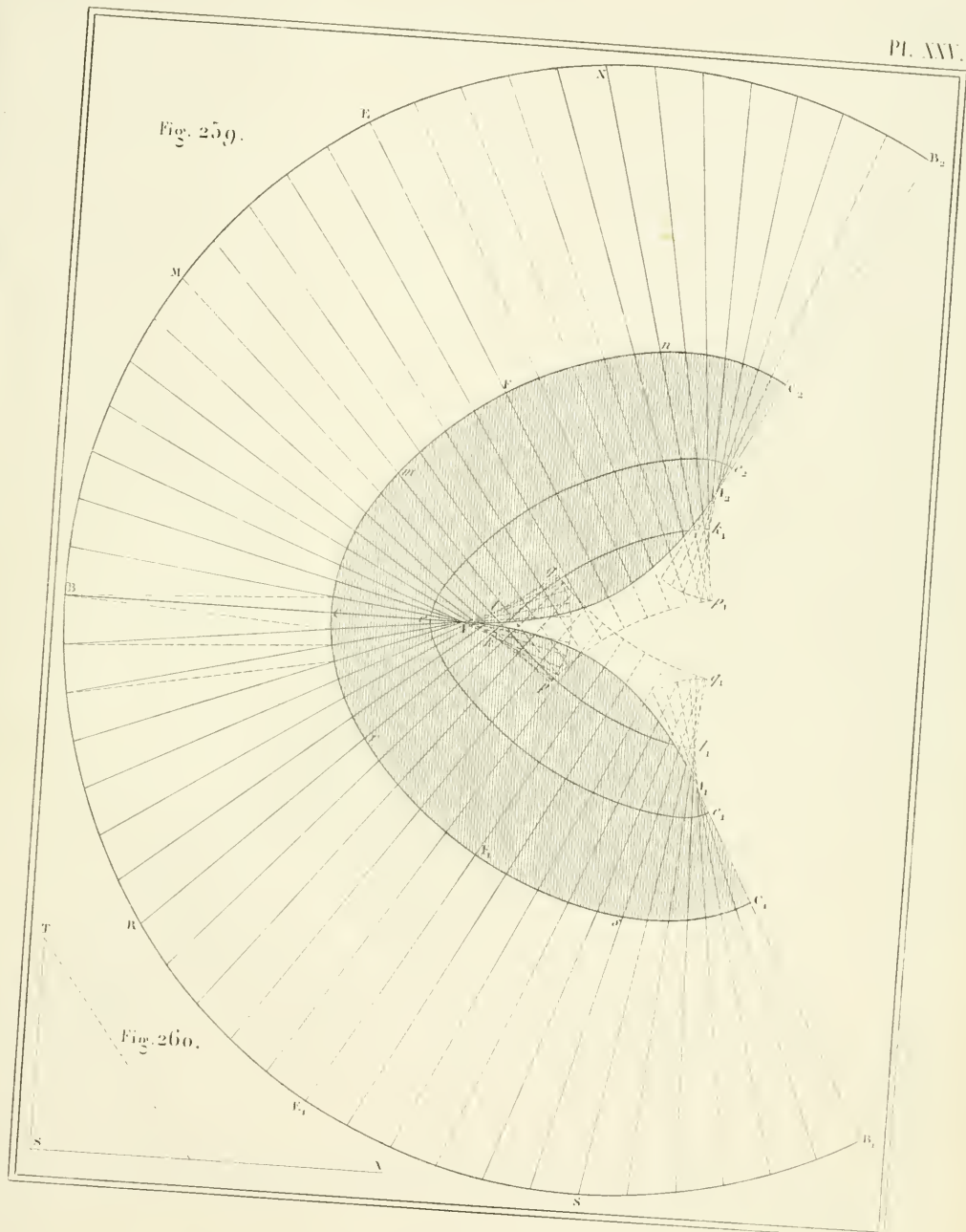


Fig. 260.

Fig. 202.

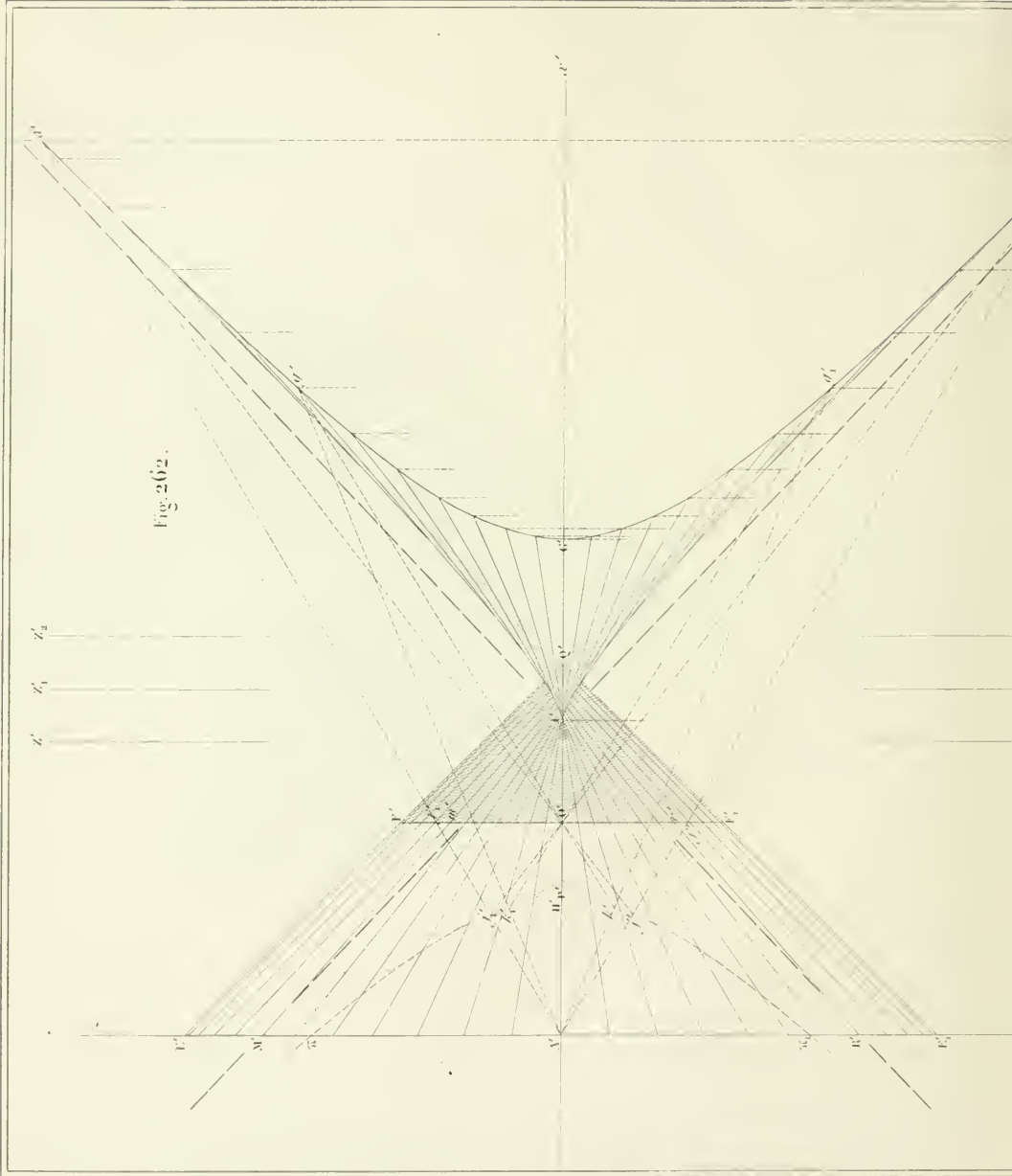


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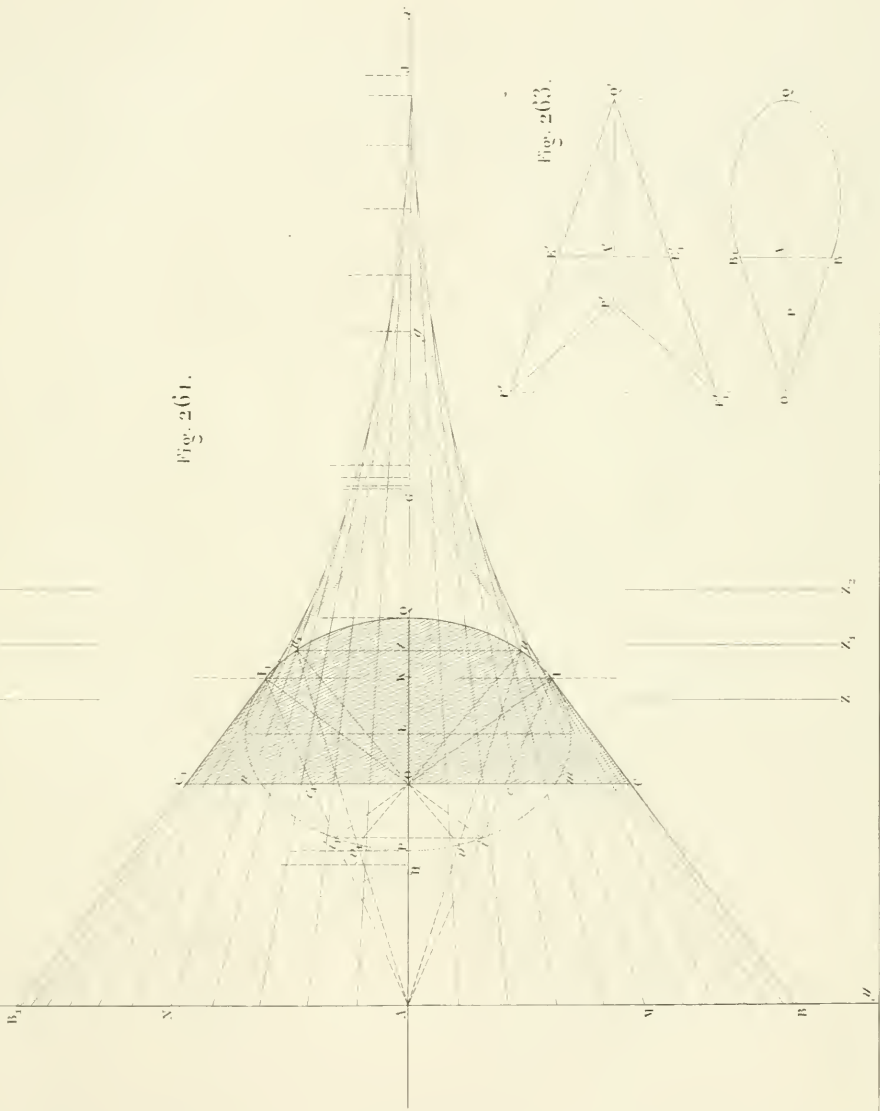


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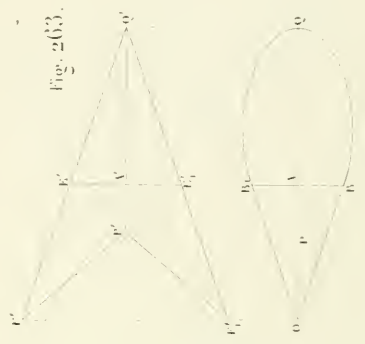


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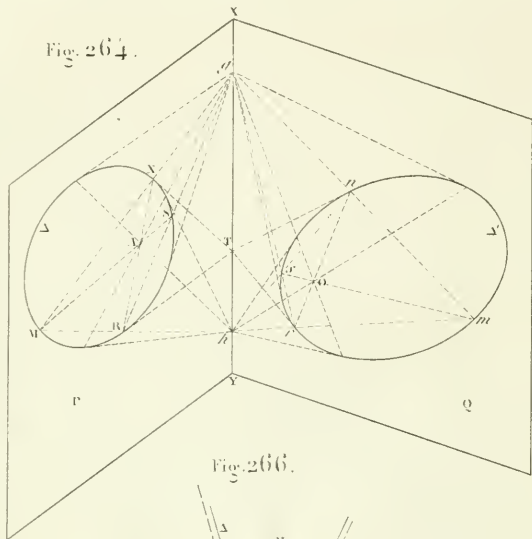


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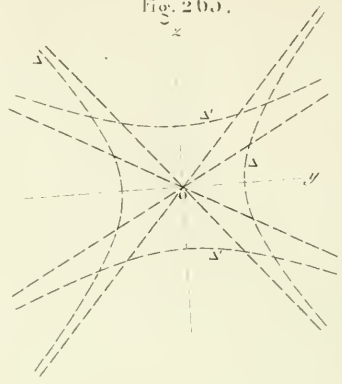


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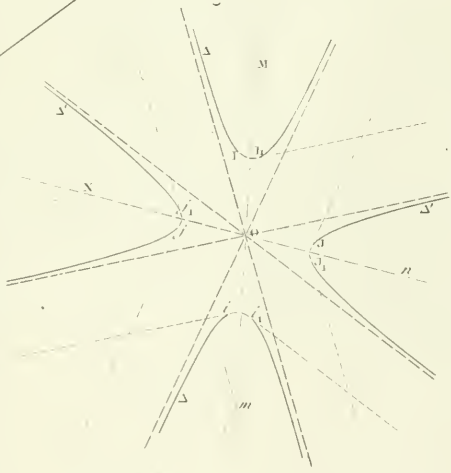


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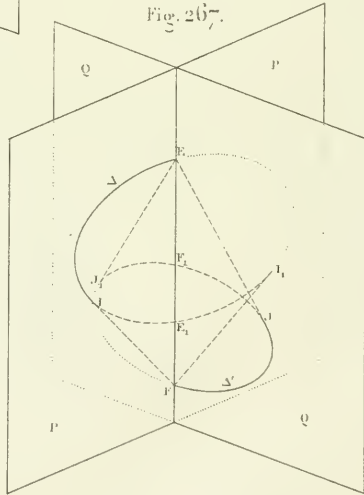


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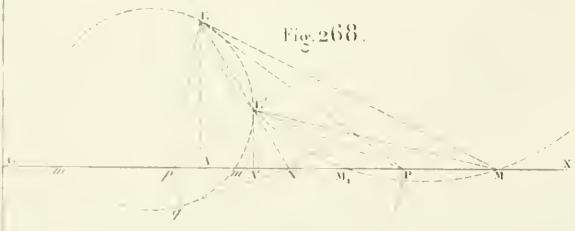


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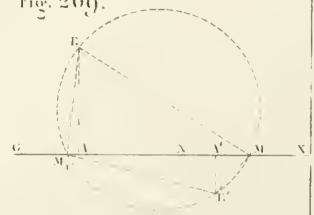


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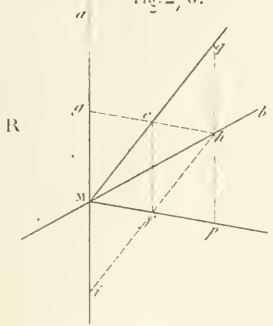


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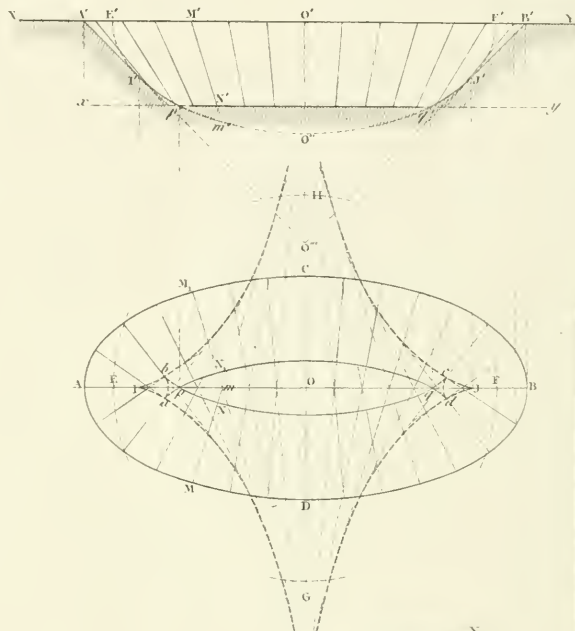


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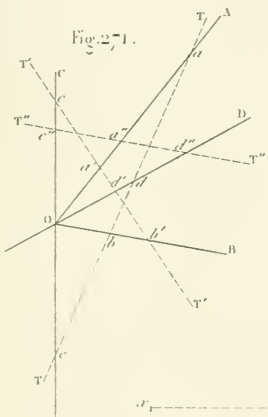
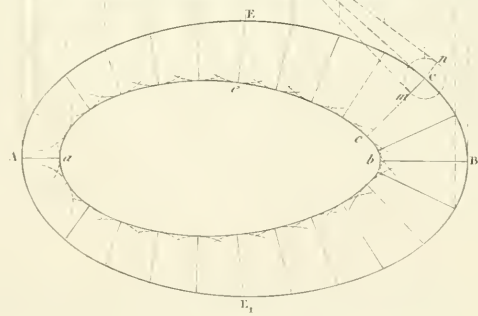


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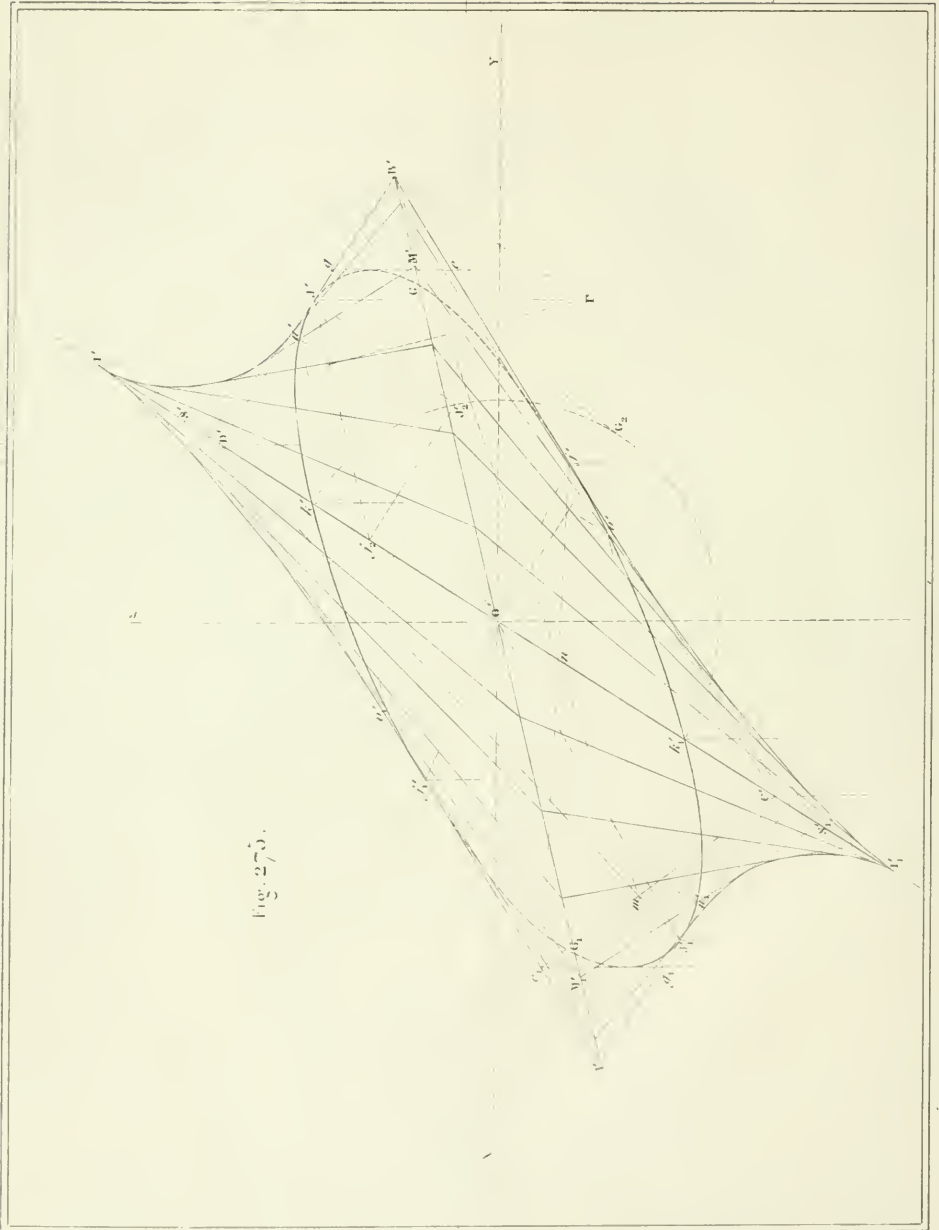


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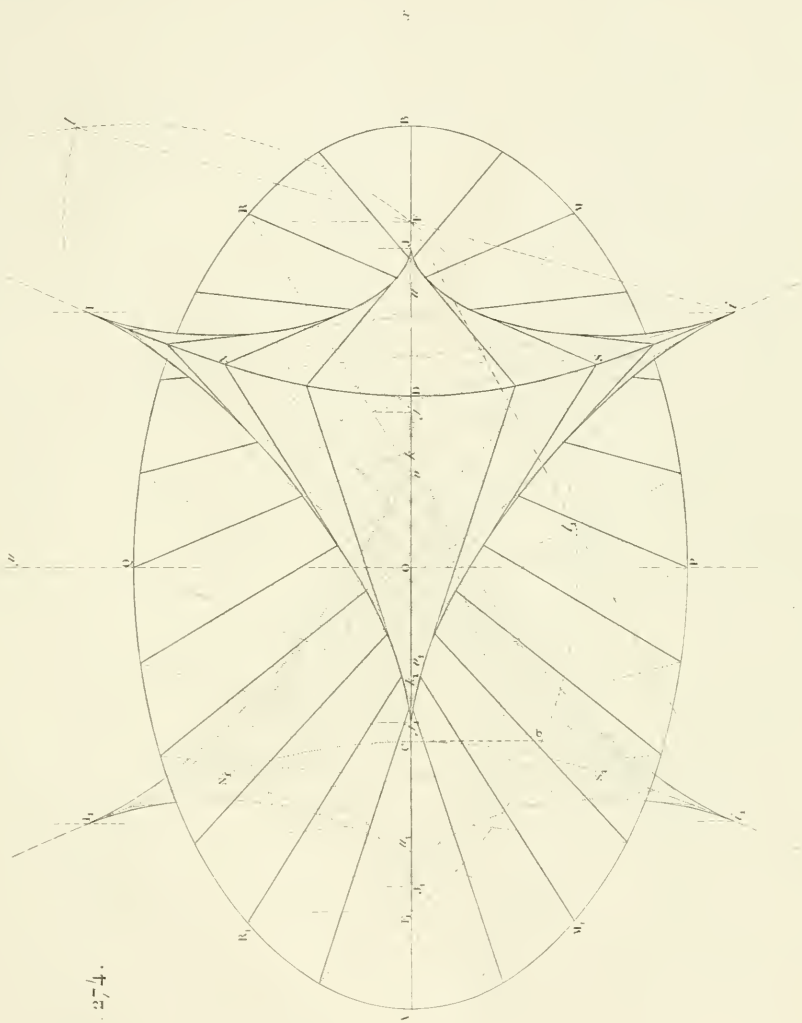


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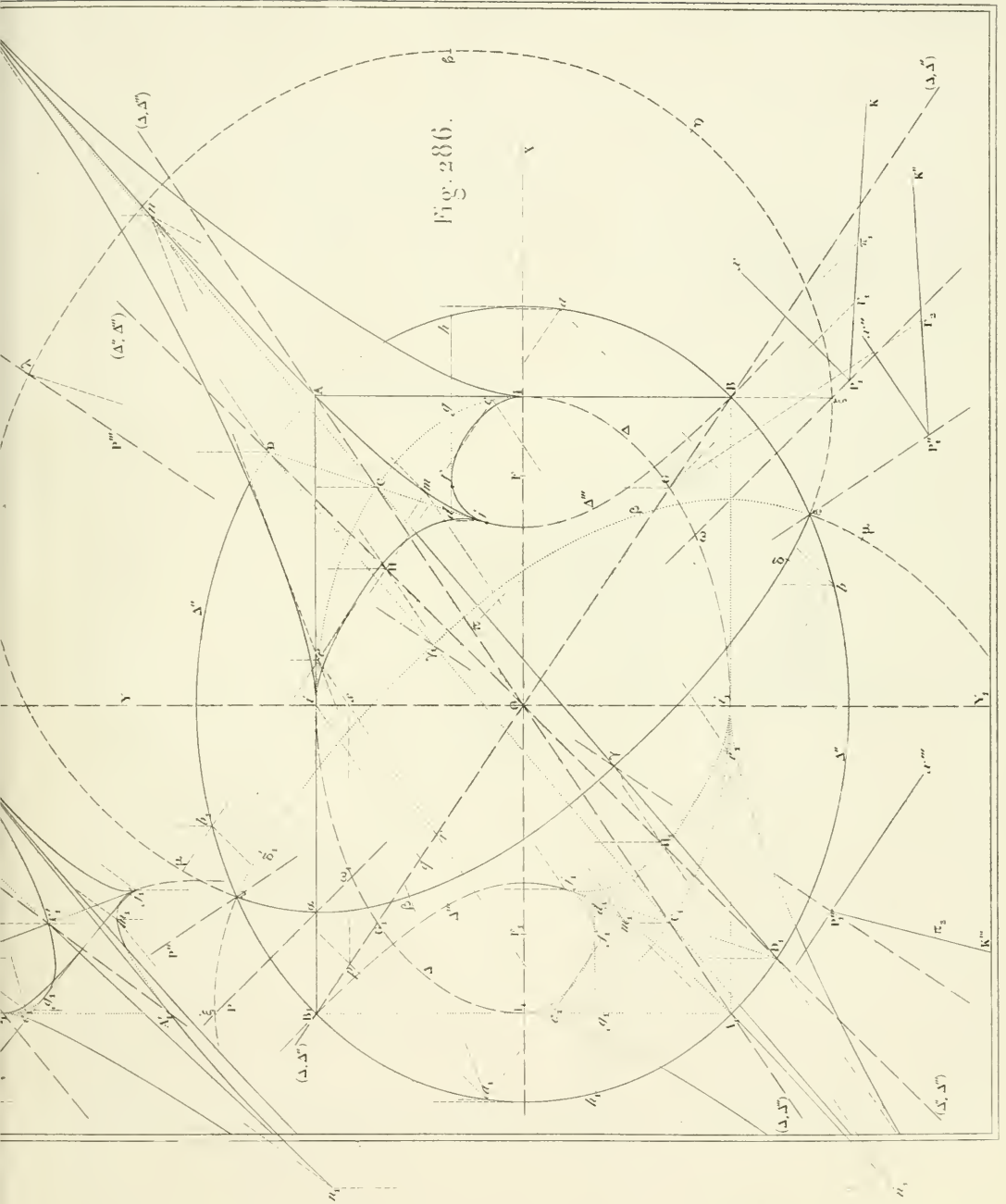


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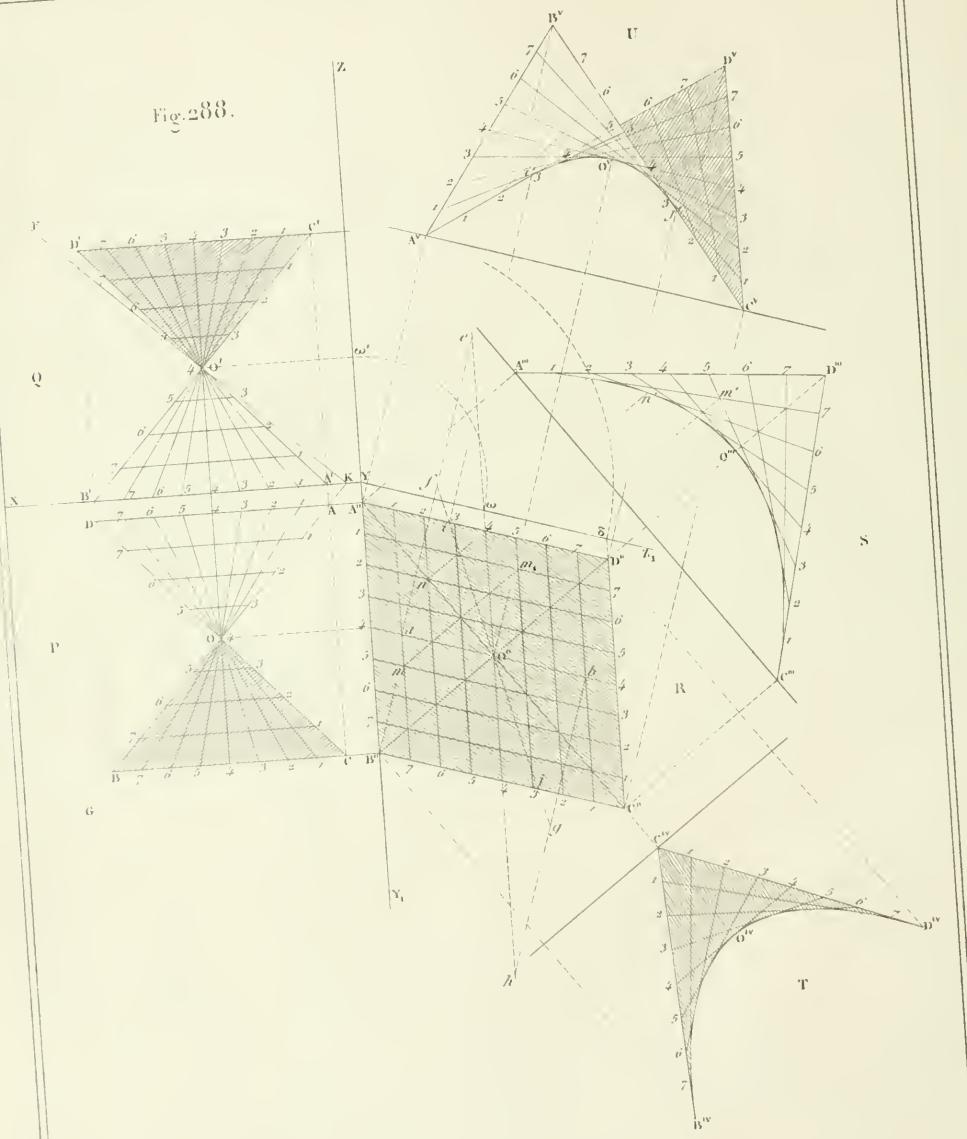


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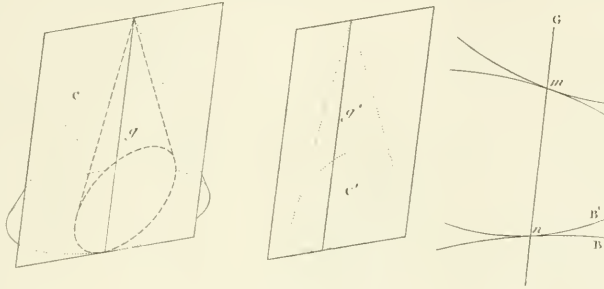


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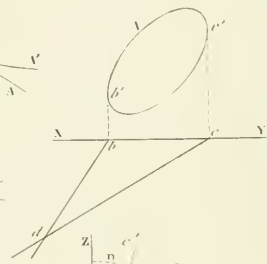


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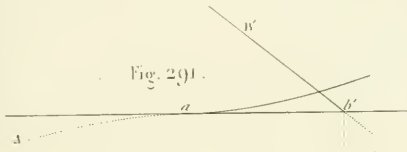


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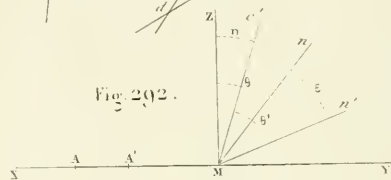


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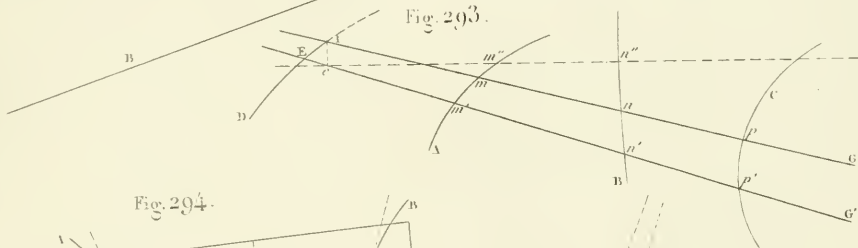


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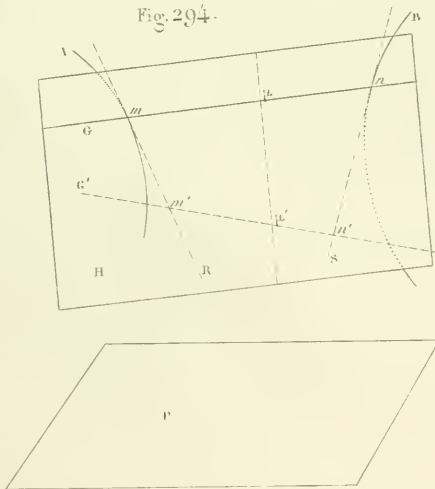


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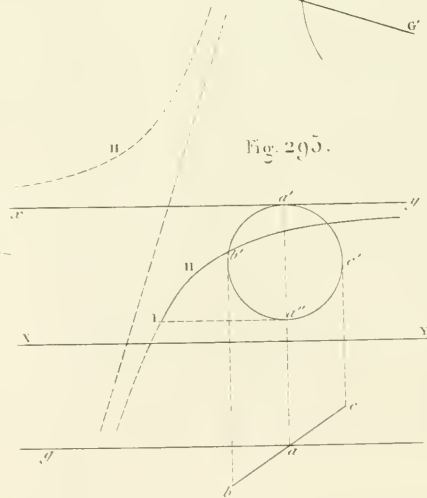


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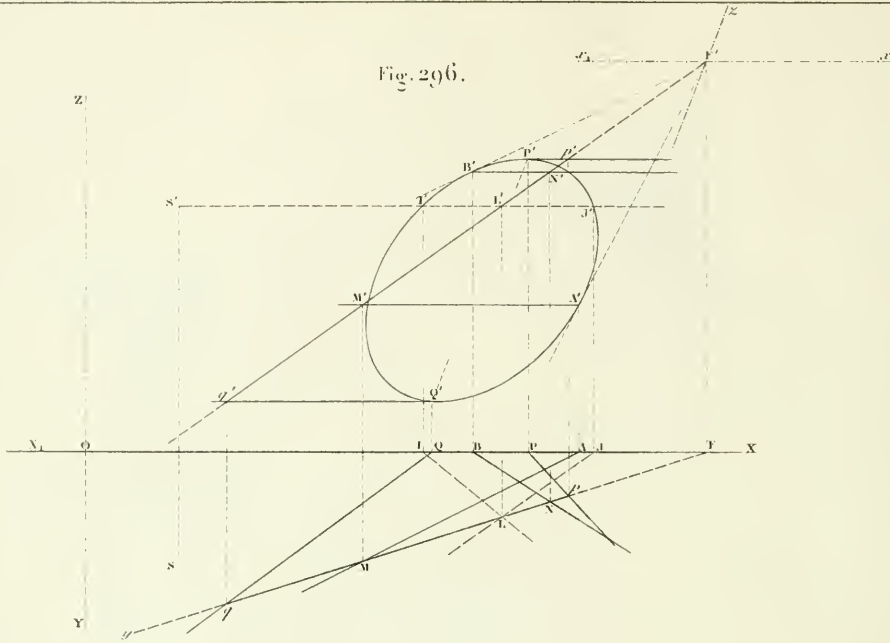


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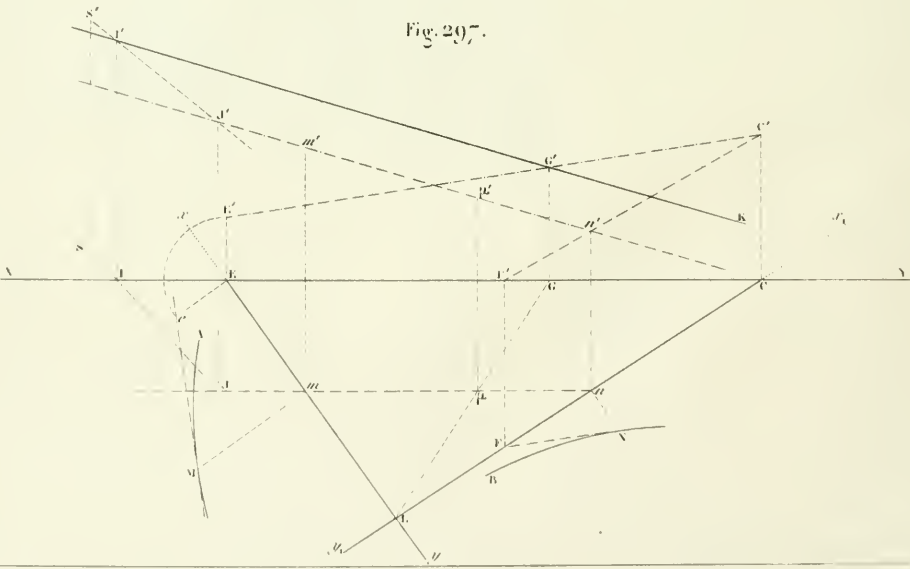
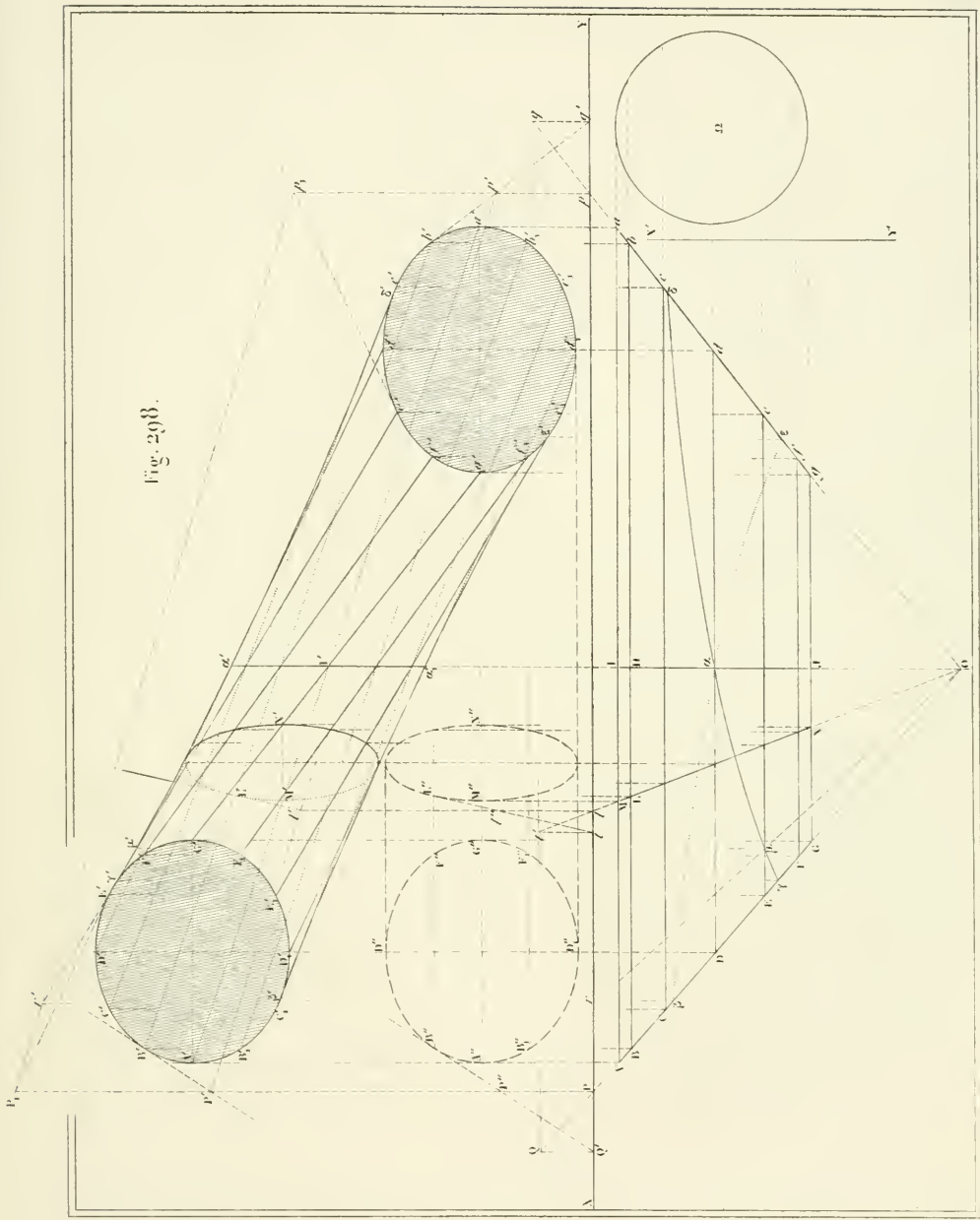


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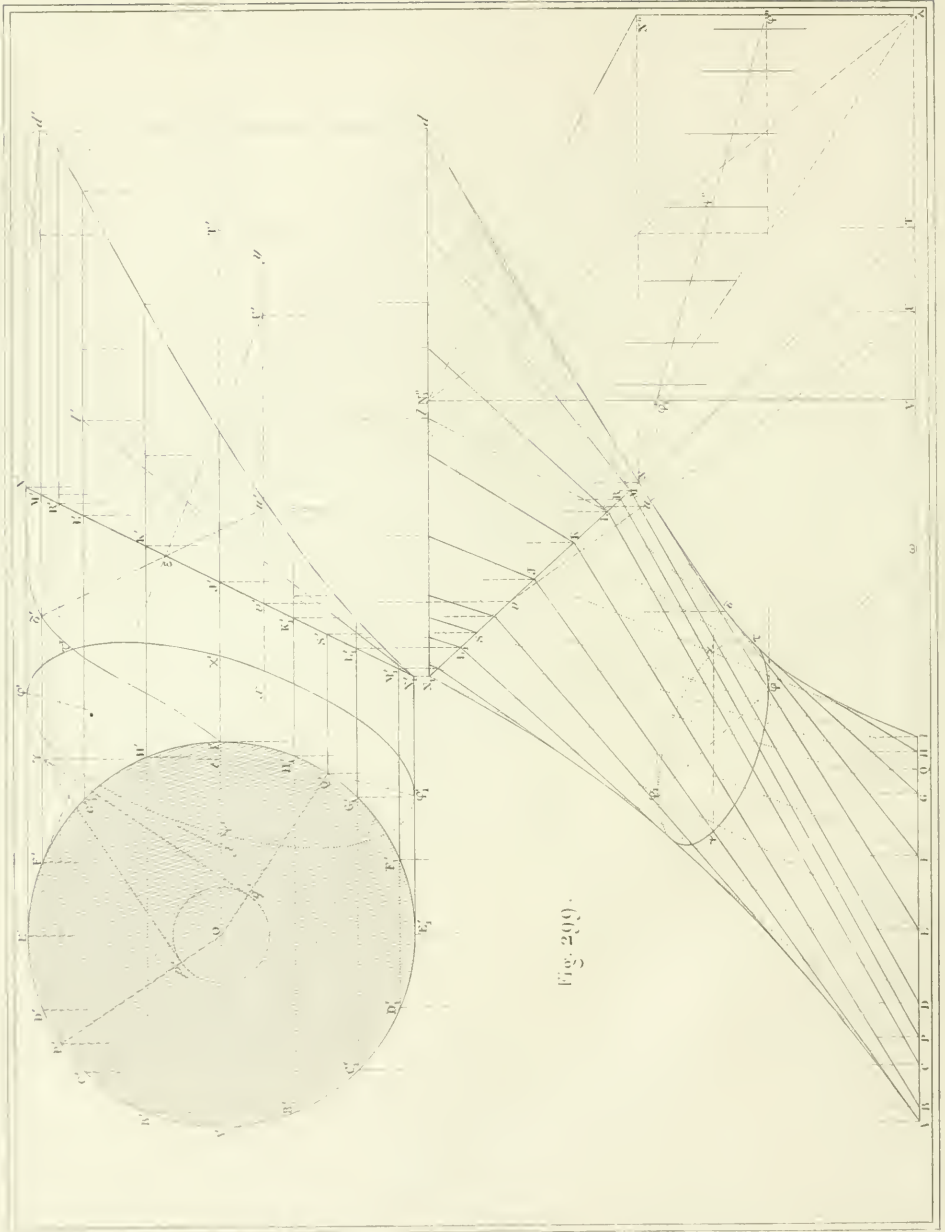


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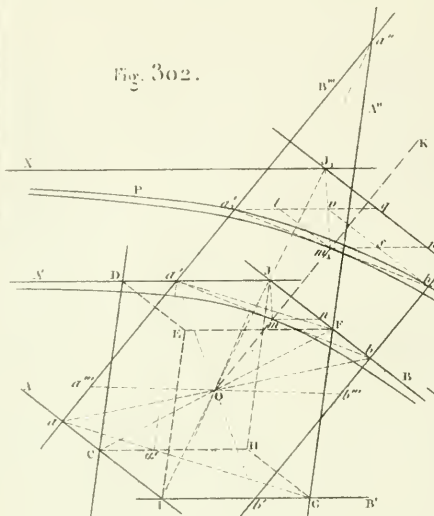


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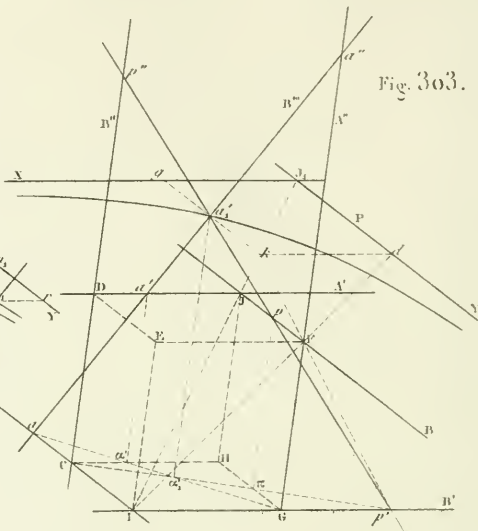


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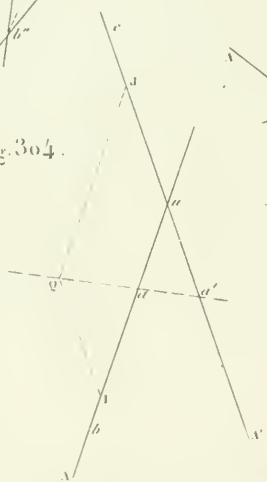


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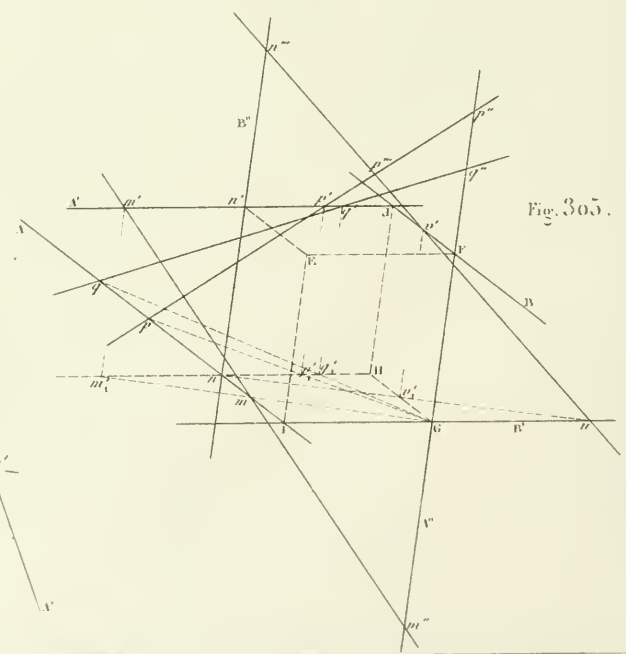


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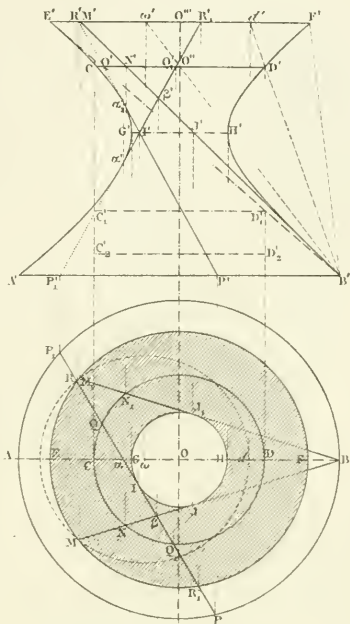


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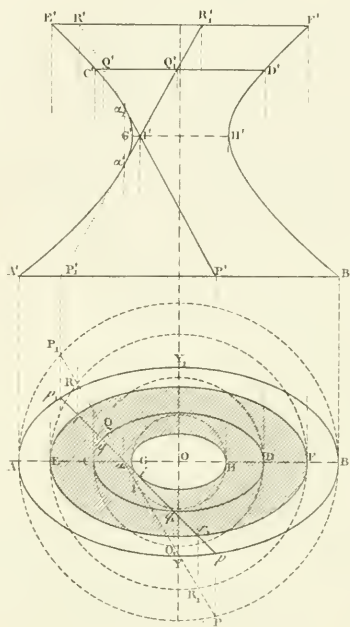


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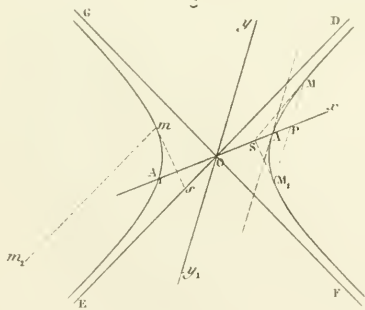


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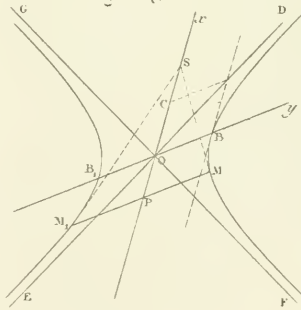
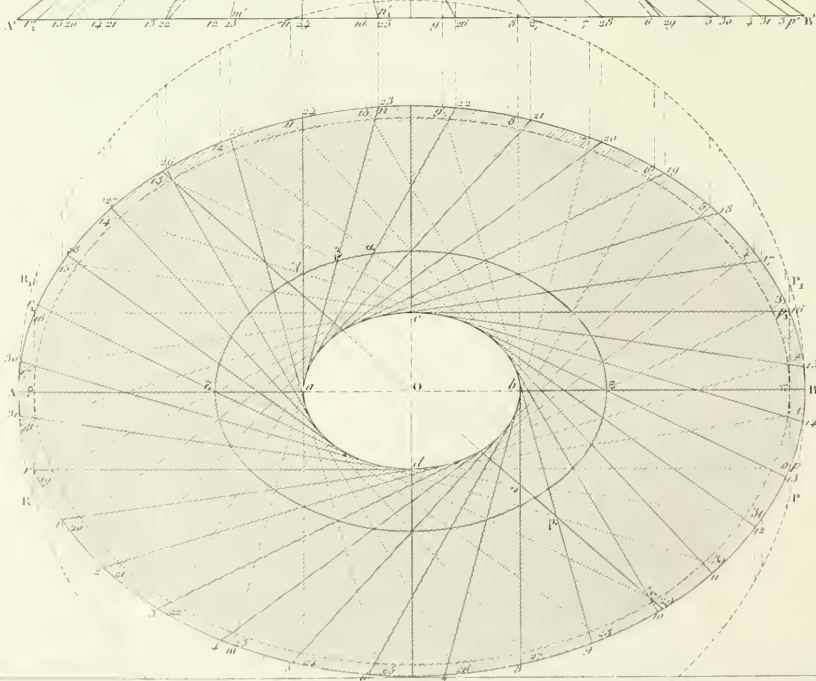
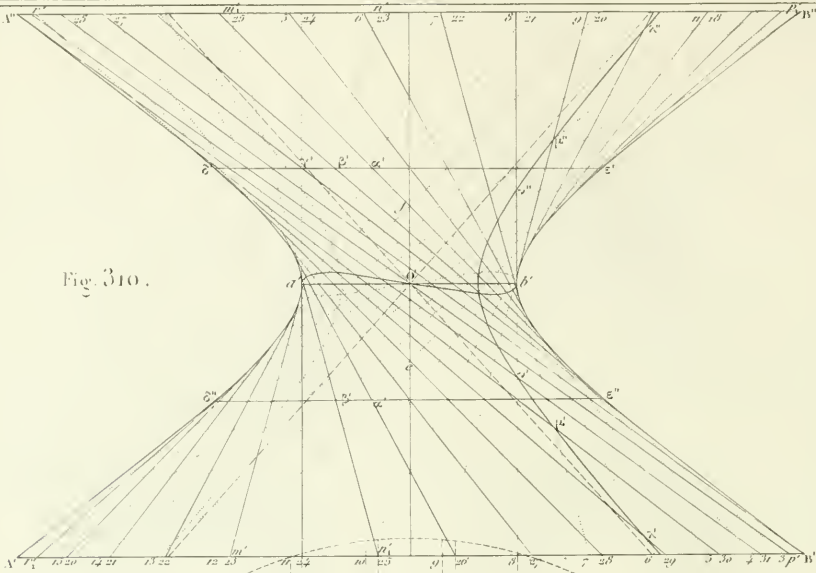


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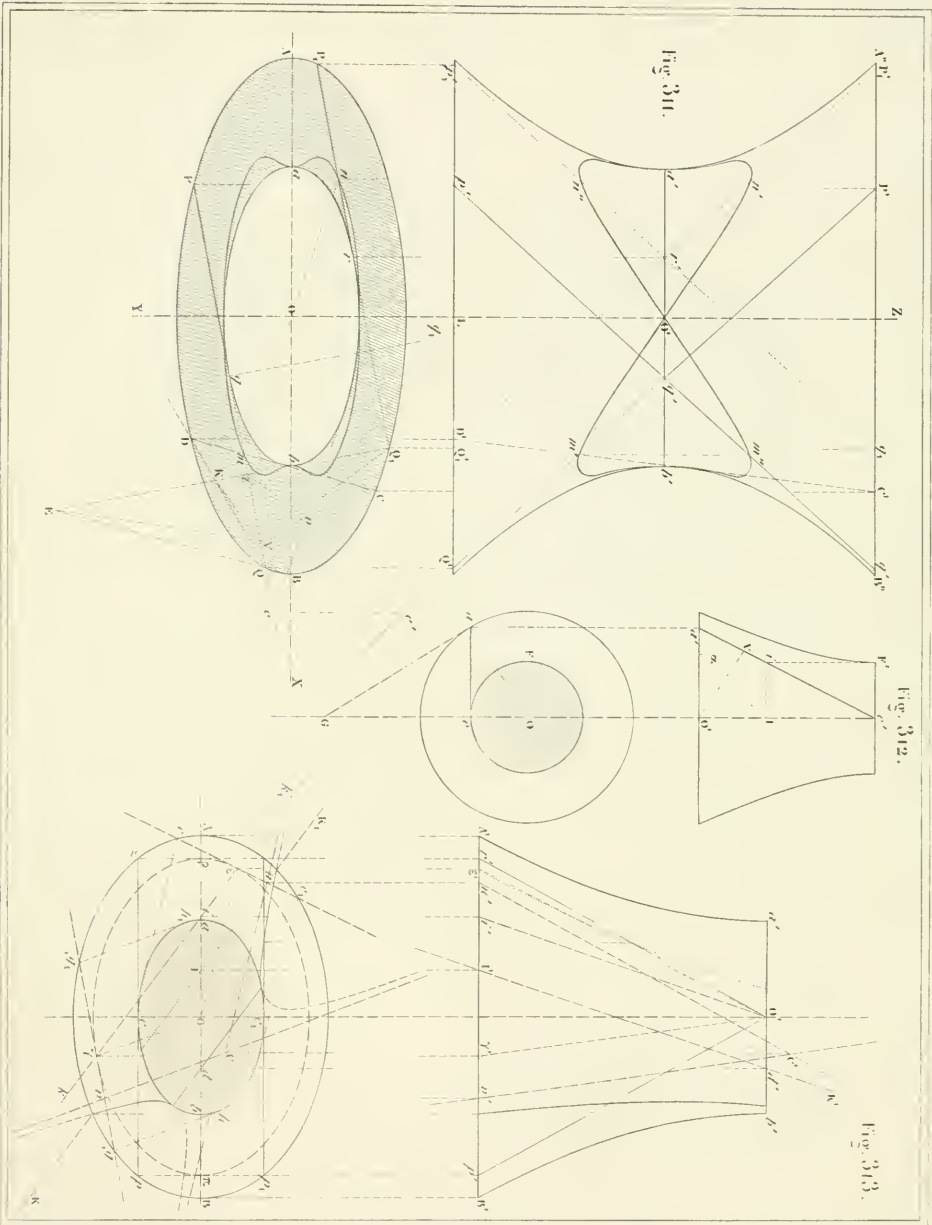


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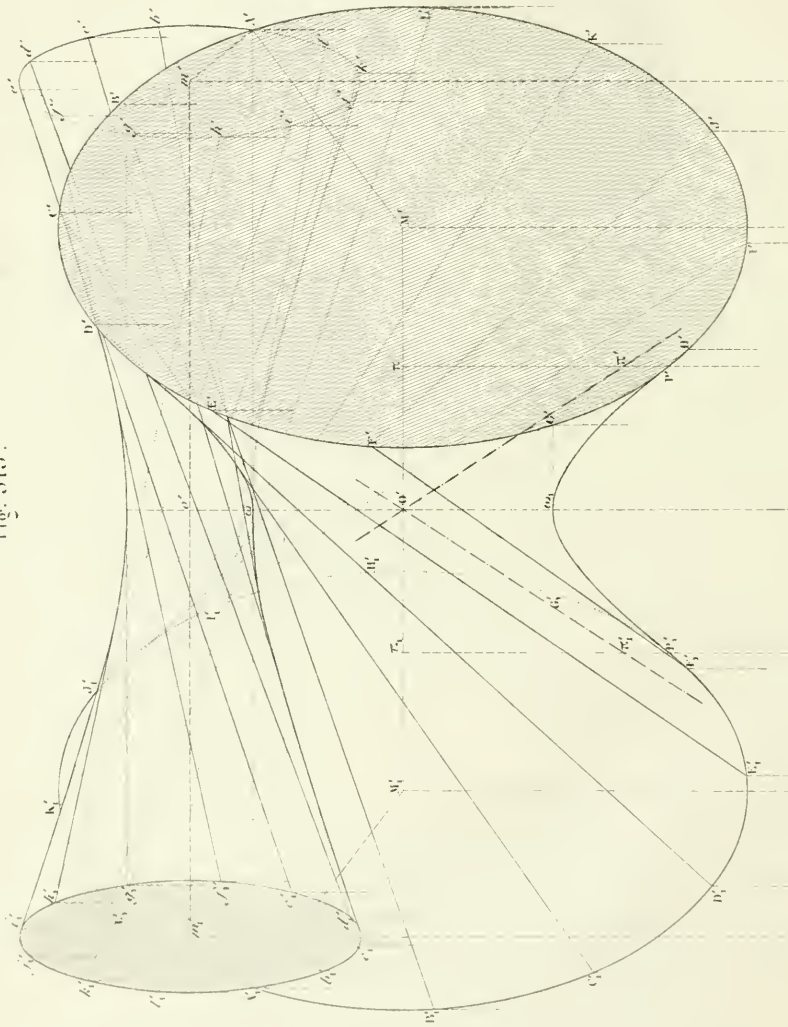


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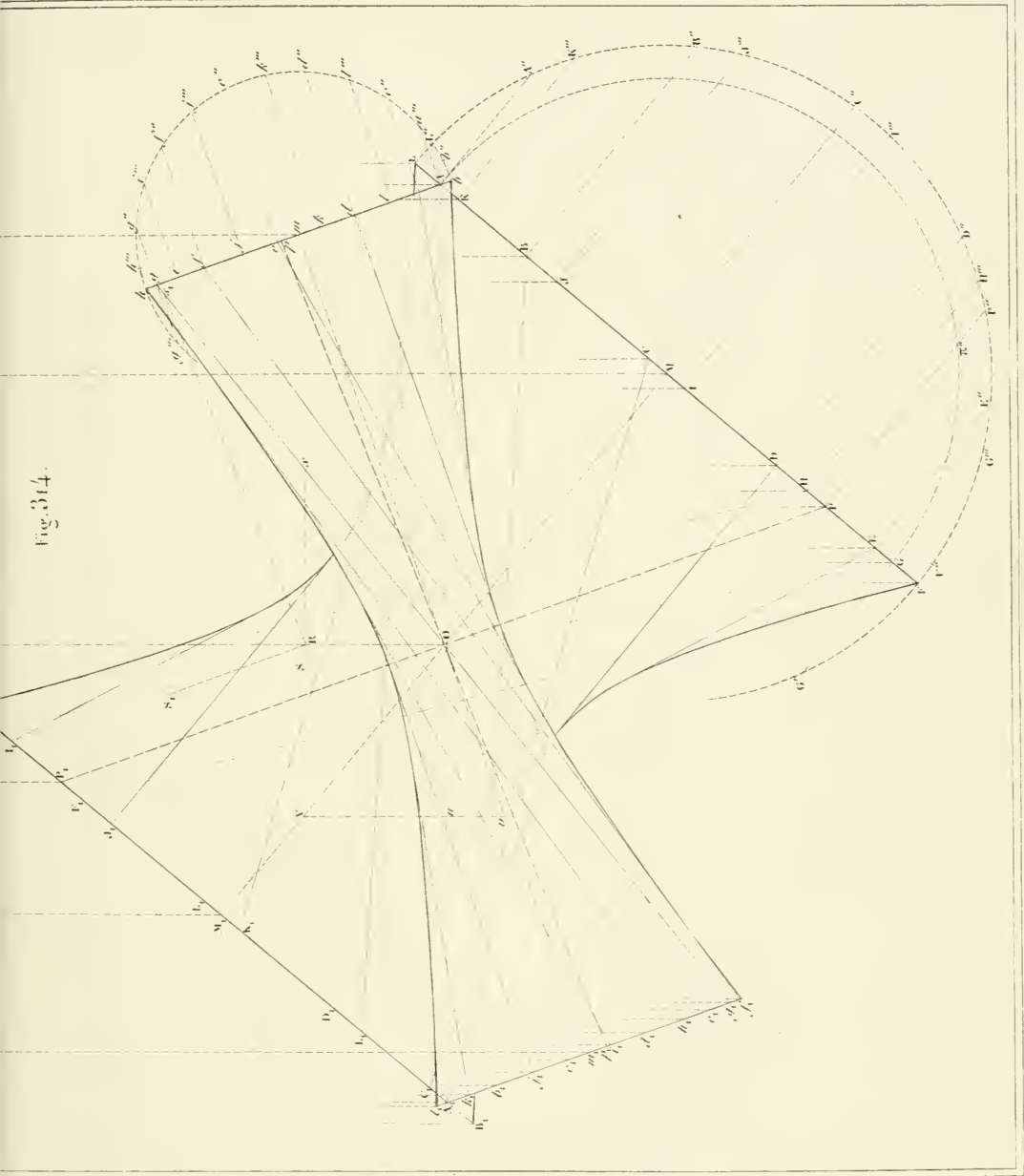


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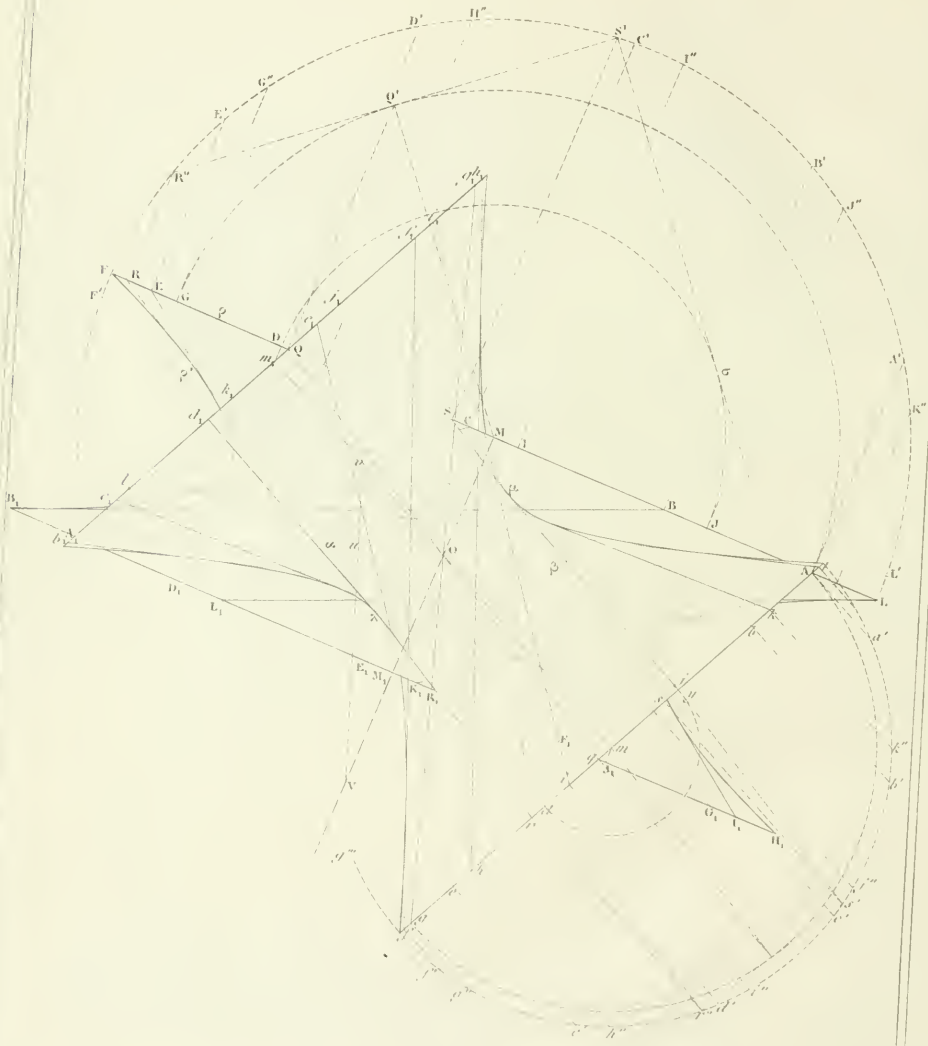


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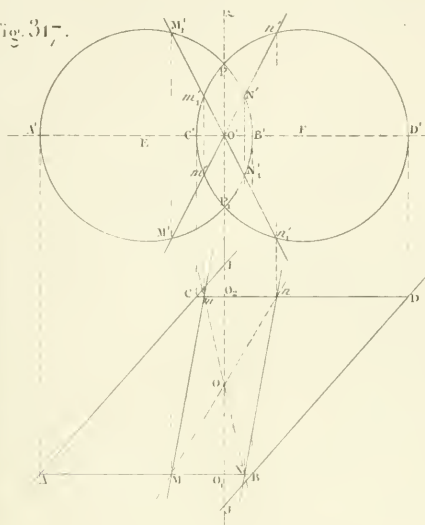


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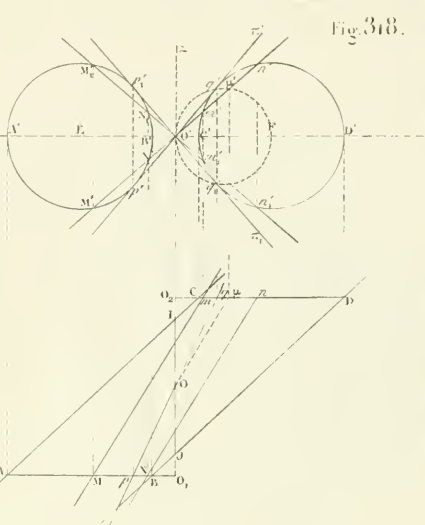


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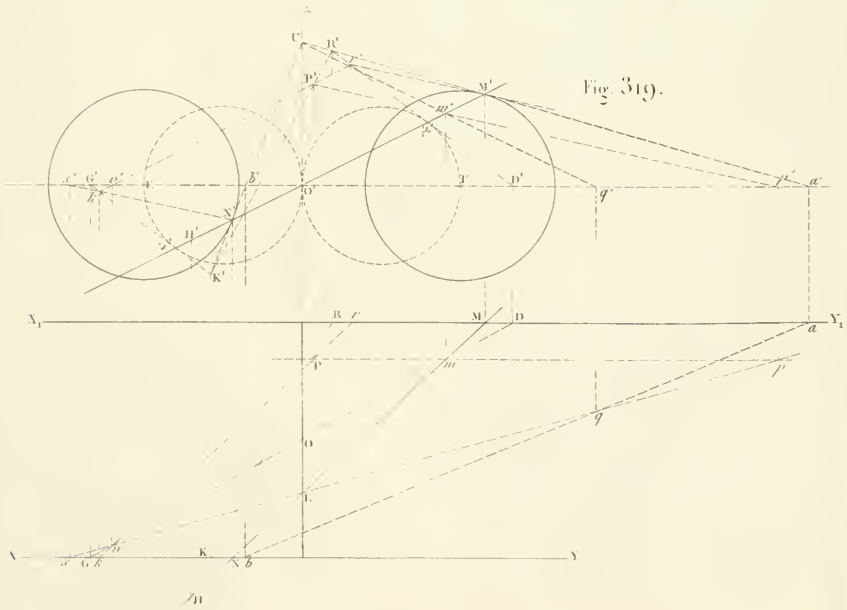


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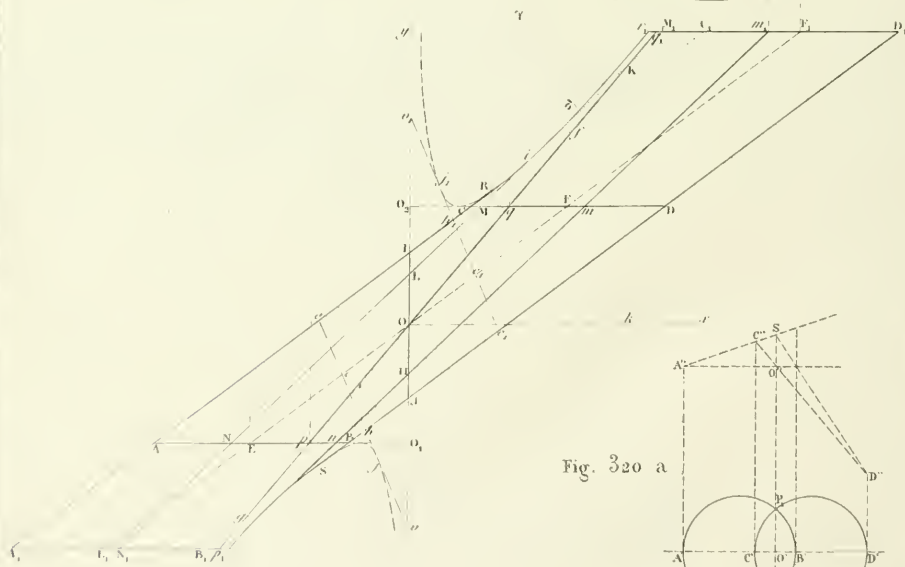
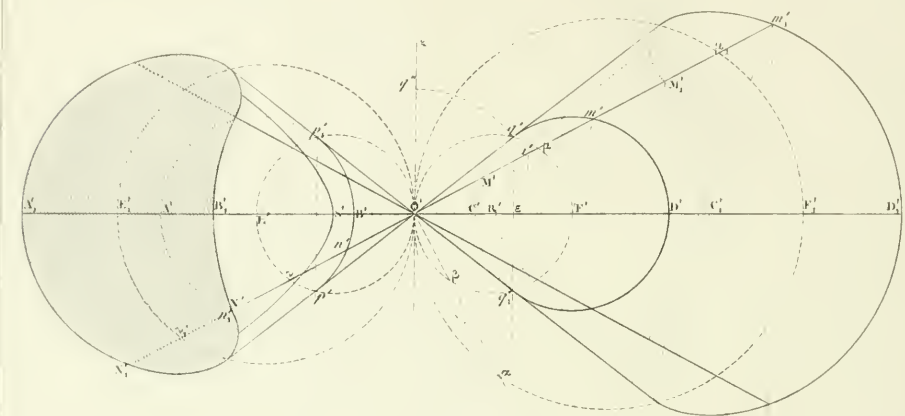


Fig. 320 a

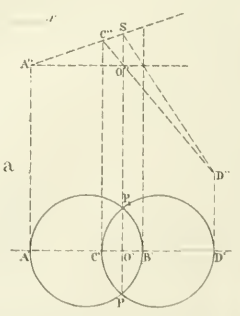
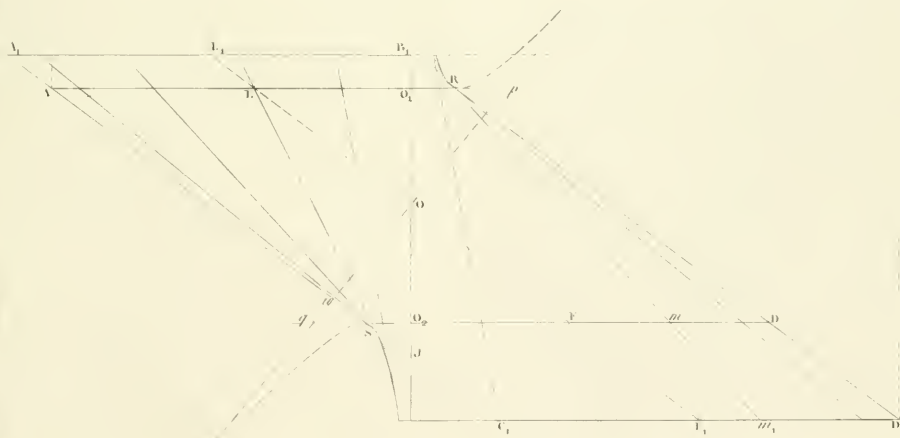
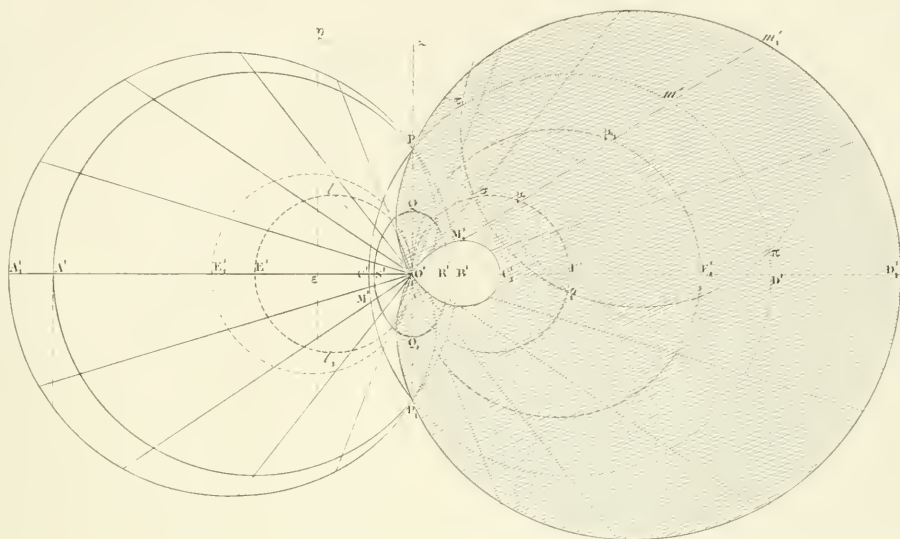
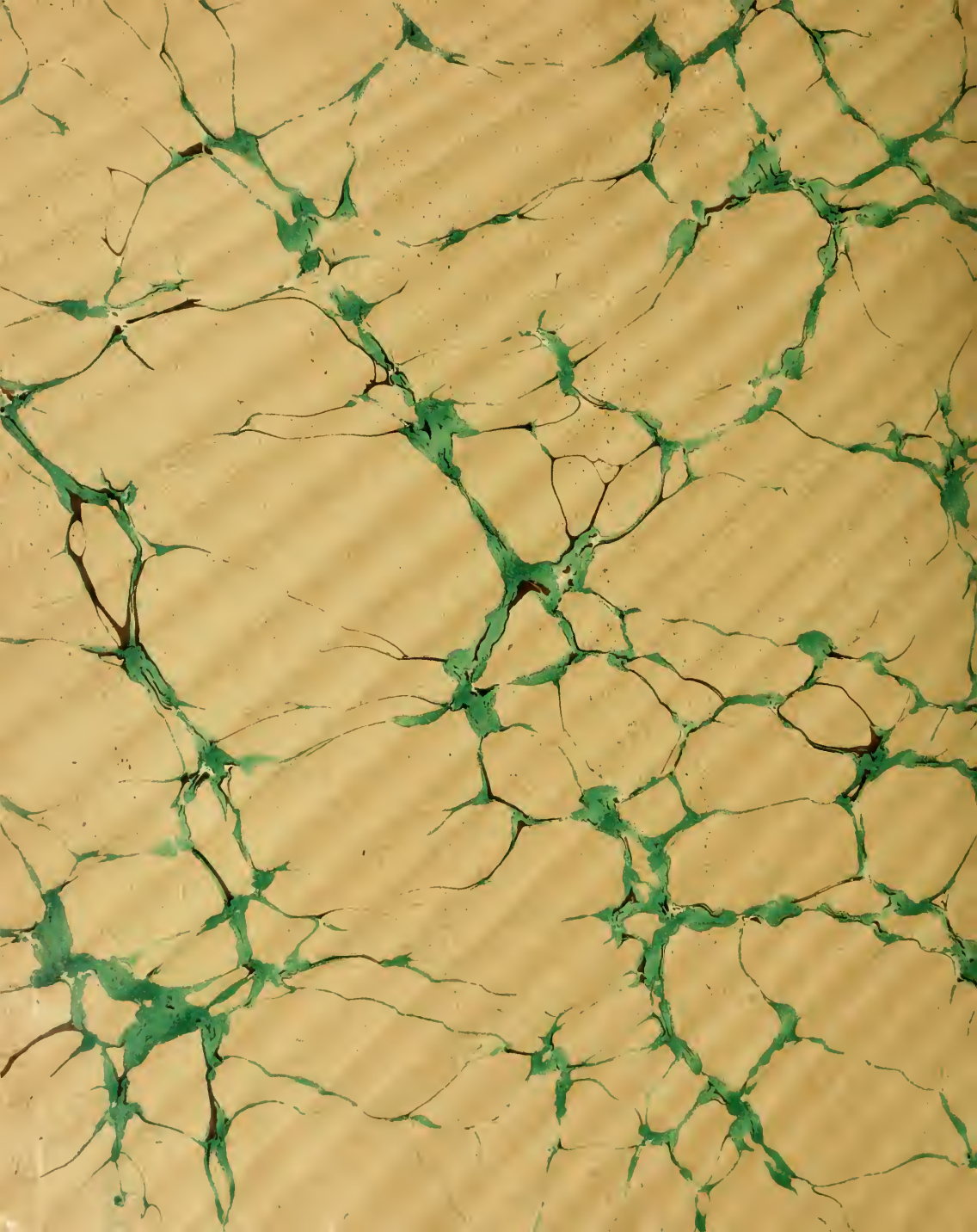


Fig. 321.





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