

Undersökningar om metallegeringar : Fd 16a.

Stiernhielm, Georg,

HS Fd 16a.



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114

Georg Stjernhjelm's

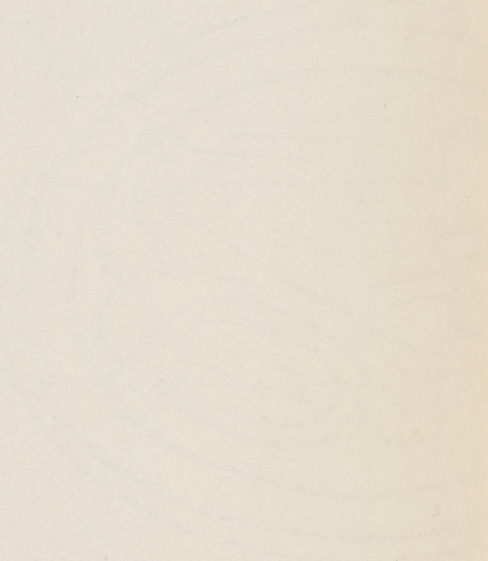
Undersökningar om metall-legeringar (Se hans Archimedes
reformatus).

F. d. 16^e.

5 bl. 4: s.

Faint, illegible handwriting at the top of the page.

Faint, illegible handwriting in the upper middle section.



Vertical text on the right edge of the page, possibly from an adjacent page or a margin. The text is partially cut off and includes characters like 'T', 'S', 'J', and 'C'.

Pes regis . . . Aurei quos habeo

78.
33.
33.
33.
33.

78. 24 grana

33. 33. } 135 } 114

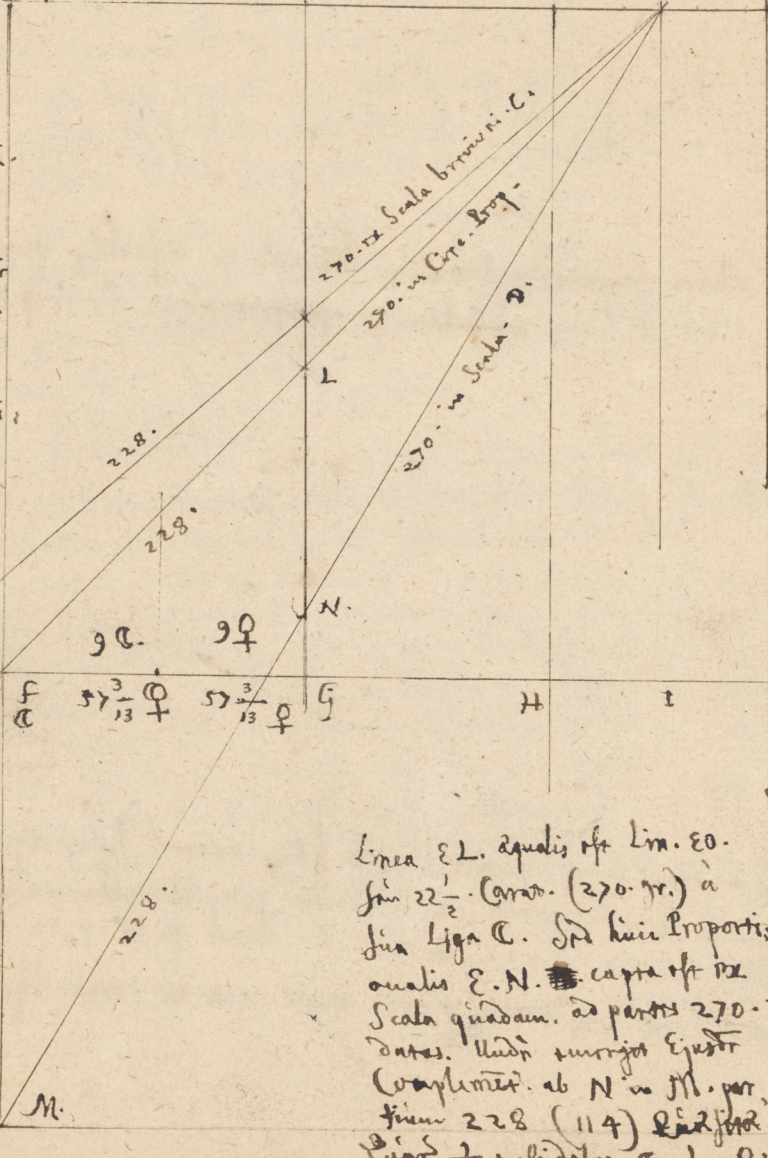
Liga p[ro]p[ri]a

C. pura est
Liga Au. 22 1/2 kar.
2000 co.
Flaudat.



Carat. Capr 22 1/2 (270. aut dimid. 135) a sua Liga C. Eam
dante Arcu quinto, pe Liga Puncto Ligat Prd.
Scripta ♀ transfor & lineam CG. in Puncto L. ita
indig[er]e. Unius angulum F. Introtra
Lina EL. capr in
Crim. Prop. intro
135. & 135. & b
dabit totius Lina
Completet LF.

Prescript
à priori
discrepan
qua Liga
p[ro]p[ri]a C.
Ligat tunc
Liga vna
qua usat
patur. Et
fictu, ad p[ro]p[ri]a
dator de
moustratio
nam.



FG. est
Spacium L.
p[ro]p[ri]a partitio
de Prd.
Scripto intro
C. & ♀

F 57 3/13 ♀ G 57 3/13 ♀

{ C }
{ ♀ } } 114
ita intro C & ♀
partitio, ut p[ro]p[ri]a
Prescriptum. Quod
fit commodissime
tributo spatio FG.
in tot partes, quot
dant Complem. LF.
Et proportionalis
p[ro]p[ri]a in 144

Proba.

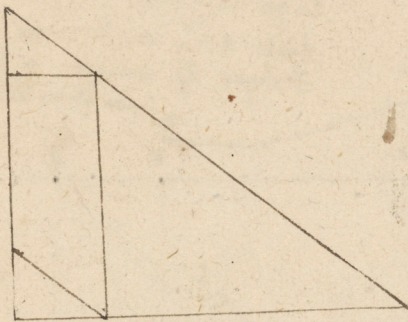
288. dimid.
K 144
addit 57 3/13 C. 135
addit 57 3/13 ♀
divi 258 6/13

Linea EL. equalis est Lin. EO.
Sua 22 1/2. Carat. (270. gr.) a
sua Liga C. Sed hinc Proportio
qualis E. N. capr est 12
Scala quidam. ad partes 270. facit 156. gr. id est
dant. Unde surrogat Ejust 13. Carat Ligat.
Complemet. ab N in M. per
hinc 228 (114) Ligat
Quod 1/2 possidet C. 1/2 ♀ NB. Commodig fo find
de Breviori Scala Lina breviorē abigit.

Fundament hujus Proccos est Prop.

Si una Recti Anguli Paralleli intersectantur, Parallela Segmenta conteminiuntur erunt proportionalia.

Euel. p. 2. Th. 4.
lib. 6.



Interea
totus Geo.
descri.

Item. Similium figurarum termini homologorum aequalibus angulis
Substanti, inter se sunt aequales, proportionalibus. Alted. p. 887.

Handwritten notes in the right margin, including a small diagram of a circle with points and lines, and some illegible text.

Vide ap. Alted. p. 890. hanc Prop. Figurae similes habent rationem laterum aequi
multiplicata dimensionibus; & inveniuntur proportionalibus una
dimensionum minorum. Euelid. 2. p. 6. Utant. 11. 18. p. 8.

pag. 887. Figura ordinata non dantur plures quam una in singulis speciebus.

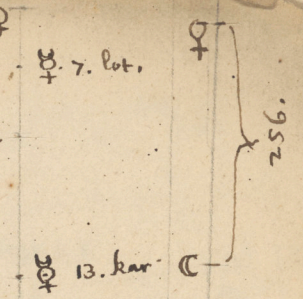
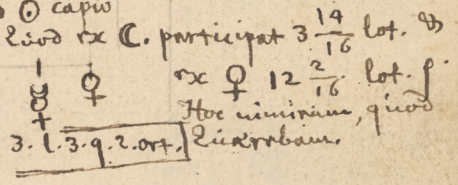
Exempl. 2do. \odot legandy ad C. 7. lotos Puri in Marca,
 et fiat 13. Carator. T. Ergo Lin. Prob. Punctis fiv lo.
 cis Proportionalibz singulor Metallor figuram. 2. Ex
 Intersitio \ominus ad C. distincto in 16. lot. fiv 256. ort. capio
 7. lot a \ominus trogim. \ominus figno Punct Signo \ominus . 3. Ex hoc
 Puncto ad Punct \ominus . Capio Intervallum 288. granor, fiv
 24. Carator. Equibz ex \ominus . capio 13. Eud Punct noto
 nota \ominus . NB. Commodior \ominus Prolixior erit Lin. Prob.
 si loco A. in ipsa basi loes. \odot . a eiqz Puncto si fiv,
 sum rrigas partis 39. habebis Punctum \ominus . a \odot ad C.
 partes fr 18. Inter C. \ominus \ominus partes 11. intrapunt.
 a \odot ad $\left\{ \begin{array}{l} \ominus 39. \\ C 28. \end{array} \right\}$ diff. 11. Commodius capioner hae
 partes in Cirino Prop. si ras

Multiplicatas p 5. Simpliciter et fiv a \odot ad $\left\{ \begin{array}{l} \ominus 195. \\ C 140. \end{array} \right\}$ 55.

Hae rater Linea altera in margine
 confectura est. Eud ppter dipta longitudine
 priori longior est commodior.

Confectarium. Ex dato Puritatis gradu \odot , cognoscere spe,
 ciem Ligd. Datum grad ut hic 13. kar. Subtraho ab. 24. A
 restant 11. karat. Ea capio ex Puncto \odot . \ominus noto fiv
 vroz Signo \ominus . Iudr capio 13. k. p Cirin. Prop. rag fiv,
 sum dicta Signo in Puncto \ominus . Ca ex \ominus . fiv loca 45.
 figno. Eud Intervallum fiv 256. \ominus ingro in Pua.
 ctum \ominus . quod inverno trauri 7. lot. in bonitatis grada.

Sit Exptm aliud. Est \odot 13. karator. eiqz Punct in tubo
 vasis, aut Linea Prob. na distantia abft a Puncto \odot .
 quam vider in subiecta Linea. Ex illo Puncto ad \odot capio
 11. Carat. \ominus radam repangitur 13. k. ipis ad \ominus . Eud ex C. participat $3 \frac{14}{16}$ lot. \ominus
 ex \ominus 12 $\frac{2}{16}$ lot. f.



vel longiti
 dino fiv axi
 rei Erubandi.

Linea infra \odot est
 omittat. Pofinut
 u. 20liq. Metallor
 fiv Puncta, Si Nri
 ipfo Proportionalor
 Subdicantur a nro
 \odot , assignari.

mit
 11. km
 3. 0
 11. km

11. km
 3. 0
 11. km
 3. 0
 11. km

Euc
li

Inter
tate
defix

vi

pag

[Faint, illegible handwritten text, possibly bleed-through from the reverse side of the page.]

Shut.

Sunt mihi duo C. gra. quod A. 13. lod.
 B. 7. lod. Punit. htr. C. quod ex singulis capibus
 est qd fit 1. Marca. 11. lod, B. facit punitatum ex A. 10¹⁰/₁₆
 ex B. 5⁶/₁₆ lod.

Hac dispositione nihil opus est
 quodam Differentias.
 C. A. 85. C. 174 B. 7.
 13. 11. 7.
 256.

Et haec linea ~~est~~ erit
 hac dispositione in parvis unit.
 sed capiuntur hic Differentias.
 7.

♀ 13. 11.

Sicuta est in 6. partibus. Linea 4. intercipit. Spacium inter
 7. & 11. & duas spae. inter 11. & 13. Hic u. sunt
 Differentia q. observantur in Calculo Reg. Allegationis.
 Totam vero Linea ♀ C. capis in Circin. Prop. si
 vis 1. Marcam, inter 256. & 256. & si vis Carat.
 tia, aut grana, int. 288. & 288. ~~Tota Lin.~~ erit Mensura
 Numeri, Ponderis, & Mensura circinaria, de qua placet
 bit Luerre. Erat Numerus Tertius in Reg. Trium.

Habro duo gra O. A. 18. Caratof. B. 9. karat
 8. gr. Volo Tertium C. 15. karat. 4. gr.

♀ 216. 182. 116.
 A. 82. C. 174. 174. B.

288.
 256.

Fait A. 16 k 2 gr.
 B. 7 k 10 gr.

Et in T. sp. A. 10. 1. 3. q. 2. ort.
 B. 5. 1. 0. q. 2. ort.
 16.

A C. B.

Calculus Sic htr:

11 { 13 X 4 } 6 { 4 } 163
 { 7 X 2 } 2 { 2 }
 fait A. 10²/₃. B 5¹/₃.

PROBA.
 256 < - 13 - 171⁵ 18¹⁷⁵
 - 7 - 85⁵ 12²⁵⁶
 256

Petitum. 11.

Signa C & ♀ volans p.
 muto ppter X differentias
 tior.

Grana fit in { A. 216.
 C. 184.
 B. 116.

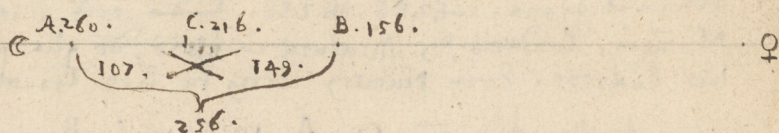
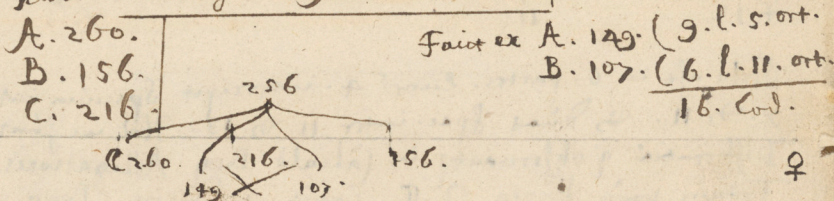
Calculus.
 184 { 216 X 68. } 100.
 { 116 X 68. } 32
 100 { 68. } 10¹⁰/₂₅
 { 32. } 5³/₂₅

PROBA
 16 { 216 - 272 } 146²² 12²
 { 116 - 128 } 3²³ 3²

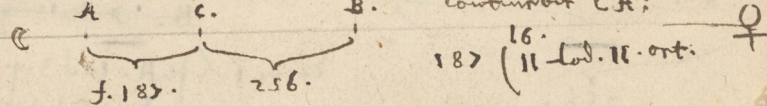
PROBA.
 ort. { 216 - 174 } 12²
 256. { 116 - 82 } 3²

Petit 15.
 4 gr

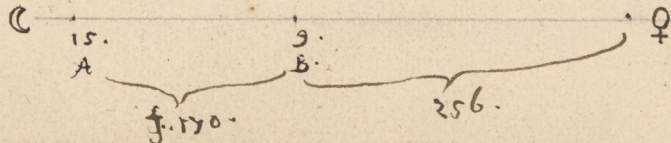
Exptm I. Problematis 7^{mi} Capit. 11^{mi} in Archim. Suetheo.
 Binas Sps C. habeo. A. 14. l. 8. y. B. 8. l. 12. gr.
 Ex ijs conflatis Medium volo C. 12. lot. Eiusdem
 capientis esse qualibet: Notand. Ubi de C. de Semu.
 eius fuit Lotus & adhaerentib. granis formis est; ibi
 Lotus ad grana rediguntur p 18. tot u. grand. Unum
 Lot continet. Et 16. Lot, fuit I. Marcu 288. grana
 habet. Tam sic utiq. eductis, Erit



Exptm. 2. Eisdem Probl. Tam contingit ut ~~si~~ Airigabro habet
 C. ex parte A. 260. I. integra Marcu; Et avet fuit quant^o
 additio fit ex B. 156. ut conficiat Petittum C. 216.
 Utrum Lin. Priore. Eius p. B. C. g. h. i. Marcu. Eiusdem
 A. C. B. continet C. A.;



Exptm 3. Eiusd. Probl. Monetarij habet C. 15. lotus.
 ei alligari vult ♀ is tantum. ut fiat 9. lotus. Eiusd.
 tur quant^o ♀ is. accipere debet: Dicit Lin. qualaminq.
 Expanso C. 15. Prop. ad spaciū ♀ A. inter 256. & 256.
 Libris Intervallum p. A. partium 1170 (f. 10. l. 2. q. 2. ort
 ♀ q. 2. q. 2. ad 1. q. C. 15. lot. ut fiat C. 9. lotus. q. Volui.



Exptm 4^{ta}

Suetonio.
 l. 12. gr.
 tantum
 Semu.
 t. ibi
 Unum
 . grana
 . l. 5. ort.
 . l. 11. ort.
 . l. 6. Cod.

Exptm 4. Ept Probl. pmissio fructu est. Anisifalor habet aliquot
 C² Sortes, quas conflata ~~est~~ vult in massam, sup Liga
 fit 9. loton. Massa vero conflata expt tam tunc 10.
 . lot. & 6. grana. Quare quant $\frac{1}{2}$ ipsi addend fit ad
 1. sup. & consequitur ad totam massam, q pondrat
 48. sup. transfer in lin. Prob. 10 l. 6. gr. id est, 186. gr.
 17 $\frac{1}{2}$ in a. Similitorq 9. l. fin 162. gr. 12 $\frac{1}{2}$ in b. ~~Tolle~~
~~l. 10. ort. 186. gr. 162. gr. 186. gr. 162. gr.~~
~~l. 10. ort. 186. gr. 162. gr. 186. gr. 162. gr.~~
~~l. 10. ort. 186. gr. 162. gr. 186. gr. 162. gr.~~
~~l. 10. ort. 186. gr. 162. gr. 186. gr. 162. gr.~~
 Mediam.

a	b
186.	162.
297. 256	
} 38. Quare $\frac{1}{2}$ $\frac{1}{2}$	

Expand iam Circin.
 Prop. ad intervallum
 $\frac{1}{2}$ b. inter 256. & 256.
 & Circino invariato ut.
 $\frac{1}{2}$ Stiga Spacium $\frac{1}{2}$ a.
 $\frac{1}{2}$ quod invenis partes
 294. Ex his tolle 256.
 Residui 38. indicant
 in lin. sup. 2. l. 6. ort
 (38. ort) $\frac{1}{2}$ is addende
 ad singulos Martas usq.
 se ostendit, ut sint 9.
 Loton. quod Eucritio
 Multipl. 2 l. 6. ort $\frac{1}{2}$
 48. sup. & invenis
 ipsis addendes, 7. sup.
 2. lot. $\frac{1}{2}$

l. 6. ort.
 l. 6. Cod.
 ♀
 ♀
 l. 6. ort.
 l. 6. Cod.
 ♀
 ♀
 l. 6. ort.
 l. 6. Cod.
 ♀
 ♀
 l. 6. ort.
 l. 6. Cod.

Exptm 4m

♀

♀

♂

♂

♂

A. 18.

B. 20.

⊙

Exptn. 5. Probl. 7^{mi} Archimedi mei, Monetarij
 quidam habet aureos 18. Carat. Liga est ♀. id
 est C. $\frac{1}{2}$. ♀ $\frac{1}{2}$. Eos vult conflari, & realtari
 ad bonitatem 20. Carat. cum Liga ♀. id est.
 C. $\frac{3}{4}$. ♀ $\frac{1}{4}$. Licet uterque C. ad.
 Dens sit, ut quod vult, obtineat;

Hoc, communem viam Reg. Attingat. Respondere non
 potest. aliam q. ingordiamur, ut patet, oculis
 subiciamus differentias utriusq. Pedis.

Auru quod habet. Aurum, q. habere volo,
 tale est. tale est.

♂. 18.	♂. 20.
C. 3.	C. 3.
♀ 3.	♀ 1.
Car. 24.	Car. 24.

Ex hoc collator patet ad Prescriptum 24^{ri} sit ♂. ad.
 grati, & ♀. minuat. Quod quia firmi non pt, quon.
 dogonum ipsi uelut, ♂. & C. illigata, immixta est:
 utroq. est, ut 2. ^{bis} Caratis ♀. q. supererunt, Min
 pro rata, & ex Prescripto, sua portiones ♂. & C. ad.
 q. iantur. Sic q.

$$\begin{matrix} \text{♀ 1. 24^{ri} } \\ \text{C. 3.} \end{matrix} \left\{ \begin{matrix} \text{♂ 20.} \\ \text{C. 3.} \end{matrix} \right. \text{Eius ♀ 3. f. } \left\{ \begin{matrix} 60. \\ 9. \end{matrix} \right. \text{Carat}$$

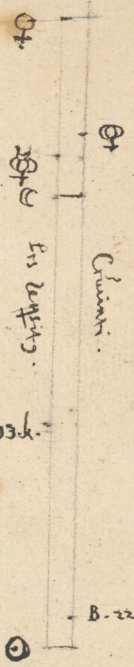
Iam autē insunt Massa C. 3. ijs addit ex inventis
 6. ut erunt 9. ut requirit. Sed & ♂. caratis 18.
 q. iam autē dicit Massa insunt, addit 42. & conti,
 nabit tota Massa 60. Car. ♂. quod docuit Inventa.
 Et sic habebis Pedem Prescriptum.

PROBA. Aurei quos hbt, cum sua Liga, faciunt

Carat.	24.	stimat	♂. 18.
♂ addit:	Car.	42.	♂. 42.
C. albauda	Car.	6.	
Car.	92.	Dant	♂. 60. q. 24.
fac. ♂. 20. Carat.			ad Prescript.

Et hae Carat.

Et haec Variatio Proportio observari debet in omni Pondere man-
uato. Sint Una, pluresq; Marcae. Sit e. g. 1. Marca .p.



Exptm 5. Probl. 7. mi Princeps quidam iussit aureos cudi Cara,
Hors 13. Liga fuit C. 8 1/2. ♀ 2 1/2 Variatio. Moutario ni-
hil auri fuit in promptu, praeter Cruciatos, q̄ tunc in
usu fuerunt. Fuit illi gradus valoris, 22 1/2 Carat.
et ligis 1 1/2. Caratis Liga ♀, id est, C. 2/3. ♀ 1/3. fuit
Ludite qd̄ quantum ipsi adijerunt fuerit, ad obtinendum
Prescriptum. Vicam in superior Expto cryptam tunc ang.

Cruciati talis est. Pes requisitus talis est: in gravis.

○	270.	○	156.
C	12.	C	102.
♀	6.	♀	30.
+	288.	+	288.

Iam Dico: ○ 156. requirit { C. 102. | q̄m ○ 270. f. } C. 176 2/13.
12. ♀ 30. ♀ 52 1/13.

C² igitur 6. gr. q̄ antea fuit in Cruciatu adijcio 164 2/13 gr.
q̄ complerent 176 7/13 gr. requisita pro C.
♀ 6. gravis addo 46 1/13. Et erunt completa gr. 52 1/13.
requisita pro ♀. Lico facto, satisfactum fuit Prescripto.

PROBA. Cruciatu in totum 24. Car. in ○ 22 1/2.
Additamentum C. 13. car. 8 2/13 gr.
♀ 3. car. 10 1/13.
Suma 41. . . . 6 6/13 gr. — 22 1/2.

Dico. 41. . . . 6 6/13 gr. — 22 1/2. — 24. kar. f. 13. Car. Ludo.

Aut, quod clarus est, in Granis: gr.

Quicquid 288. tenet in \odot 270.

Adita } \odot $164 \frac{2}{13}$..

 } \ominus $46 \frac{1}{13}$..

Sic, Sum. $498 \frac{6}{13}$ dant 270. Lind. 288: ($\odot + \ominus$, 24
Carat, aut in Pondere 1. Marcu) facit 156. gr. // 13. Carat.

Eu
1

Jul
to
de

Observat

24.
13. Carat.

E

ju
to
da

7

114
am
2.
L. S.
reat
in
Ar
S
Linn
f
u
f
f

Georg Stjernhjelm

Undersökningar om metall-legeringar (se hans Archimedes
reformatus).

F. d. 16?

5 bl. 4:0.

