

III. *Offis Bregmatis Gigantæ Magnitudinis Icon; cum Problemate de Gigantis Statura determinanda secundum Regulas Artis Delineatorix: quæ ad Illustr. REGALIS SOCIETATIS Præsidem D^{um} Hans Sloane, Bart. transmisit Jac. Theodor. Klein Reipubl. Gedan. a Secretis & Reg. Soc. Lond. Soc.*

EX celebri musco, quod Amstelodami fuit, Wittseniano, os bregmatis giganteum *, cujus altitudo 9 poll. Angl. latitudo 7 (TAB. I.) una cum descriptione & adjuncta figura †, altitudinem capitis a mento ad verticem 20 poll. latitudinem ad tempora 12 poll. (TAB. II.) repræsentante, necnon aliud ejusmodi os, cujus altitudo $5\frac{6}{8}$ poll. Angl. latitudo 5 poll. sed sine figura & relatione ad caput anno 1728 nactus, facile invenire potui, assumtis secundum regulas artis delineatorix octo capitis altitudinibus, staturam gigantis fuisse 13 ped. 4 poll. alterius vero ossis bregmatis, quod insolitum quoque simulabat caput, justam rationem & quidem juxta regulas mathematicas scire cupidus, viro excellentissimo *Henrico Kühn*, J. U. D. & Athenæi *Dantiscani* mathes. P. P. meritissimo, sequens proposui Problema :

* *Vid. Catal. Mus. Wittsen. p. 82.*

† A pie defuncto *Ruyfickio* comparatis,

Si in duobus corporibus humanis diversæ staturæ fuerit,

In Priore,

Offis bregmatis altitudo 9 poll. Angli.

—————latitudo 7.

Integri capitis altitudo 20.

—————latitudo 12.

In Posteriore,

Offis bregmatis altitudo $5\frac{6}{8}$ seu $\frac{46}{8}$ poll. Angli.

—————latitudo 5.

Integri capitis altitudo ignota.

—————latitudo ignota.

Determinare ignotum, & rationem staturæ prioris ad posteriorem definire.

CUJUS TRIPLEX RESOLUTIO, hæc:

Si corpora ista forent similia, res brevissime expediri posset, inferendo; ut in priore corpore, offis bregmatis altitudo ad integri capitis, vel etiam integri corporis, (tanquam illius octuplam) altitudinem, ita in posteriore corpore, offis bregmatis altitudo vel latitudo ad integri capitis, vel etiam integri corporis, altitudinem quæsitam; quoniam vero 9 ad 7, & $\frac{46}{8}$ ad 5 sunt rationes dissimiles, corpora ista similia non sunt. Quamobrem opus est, ut in calculo & altitudinum & latitudinum ossium bregmatis ratio habeatur; uti ex triplici methodo subjecta apparebit.

METHODUS PRIMA.

(Fiat α .) $9'' : 20'' = \frac{46''}{8} : \left\{ \begin{array}{l} \text{altitud. capitis quæsitam} \\ \frac{20 \cdot 46''}{9 \cdot 8} \end{array} \right.$
 erit hujus octuplum $= \frac{8 \cdot 20 \cdot 46''}{9 \cdot 8} = \frac{20 \cdot 46''}{9} = \frac{920''}{9}$
 $= 102 \frac{2}{9} \left\{ \begin{array}{l} = 8 \text{ ped. } 6 \frac{2}{9} \text{ poll.} \\ = \text{staturæ corporis secundi.} \end{array} \right.$

(Fiat β .) $7'' : 20'' = 5'' : \left\{ \begin{array}{l} \text{altitud. capitis quæsitam;} \\ \frac{100''}{7} \end{array} \right.$
 erit hujus octuplum $= \frac{800''}{7} = 114 \frac{2}{7} = 9 \text{ ped. } 6 \frac{2}{7} \text{ poll.}$
 $= \text{staturæ corporis secundi.}$

(Fiat γ .) Staturarum inventarum additio, & summæ
 bisectio, pro obtinendo medio arithmetico, erit
 $\frac{8', 6'' \frac{2}{9} + 9', 6'' \frac{2}{7}}{2} = \frac{17', 12'' \frac{1}{2}}{2}$ quam prox.
 $= \frac{18' + \frac{1}{2}''}{2} \left\{ \begin{array}{l} = 9 \text{ ped. } \frac{1}{4} \text{ poll.} \\ = \text{structuræ corporis secundi} \\ \text{proxime veræ.} \end{array} \right.$

METHODUS SECUNDA.

(Fiat) $9'' \frac{1}{2} 7'' : \frac{46''}{8} \frac{1}{2} 5'' = 20'' : \text{altitud. capitis}$
[posterioris.]

$$\text{h. e. } 16 : \frac{46 \frac{1}{2} 40}{8} = 20'' : \text{ : : : }$$

$$\text{h. e. } 16 : \frac{86}{8} = 20'' : \left\{ \begin{array}{l} \text{altitud. capitis posterioris} \\ \frac{20 \cdot 86''}{16 \cdot 8} = \frac{5 \cdot 86''}{4 \cdot 8} = \frac{430''}{32} = \frac{215''}{16} \end{array} \right.$$

$$\text{erit hujus octuplum} = \frac{8 \cdot 215''}{16} = \frac{215''}{2} = 107'' \frac{1}{2}$$

$\left\{ \begin{array}{l} = 8 \text{ ped. } 11 \frac{1}{2} \text{ poll.} \\ = \text{staturæ corporis se-} \\ \text{cundi proxime veræ.} \end{array} \right.$

Id quod cum priori calculo sic satis consentit, cum differentia $\frac{3}{4}$ pollicis non excedat.

METHODUS TERTIA.

Quoniam in diverforum corporum partibus cognominibus (e. g. in duobus ossibus bregmatis) superficies partium sunt inter se, ut quadrata altitudinum corporum integrorum; nec minus superficies istæ sint inter se, ut facta ex altitudinibus partium in latitudines: erunt etiam facta ex altitudinibus partium in suas latitudines inter se, ut quadrata altitudinum corporum integrorum. Quare, cum altitudo corporis prioris sit $20''$, adeoque ejus octuplum, seu altitudo in-

integri corporis prioris, fit 160'', cujus quadratum est 25600''; fiat

altitd. bregmat. prioris. in 9 •	ejus latitud. 7	altitud. bregm. poster. in •	ejus latitud. 5 = 25600''	quadratum alti- tudinis, prioris corporis integri.	quadratum alti- tudinis, poste- rioris corporis integri.
		: $\frac{46}{8}$ •			:

$$\text{h. e. } 63 : \frac{230}{8} = 25600'' : \frac{230 \cdot 25600''}{63 \cdot 8} = \frac{230 \cdot 3200''}{63}$$

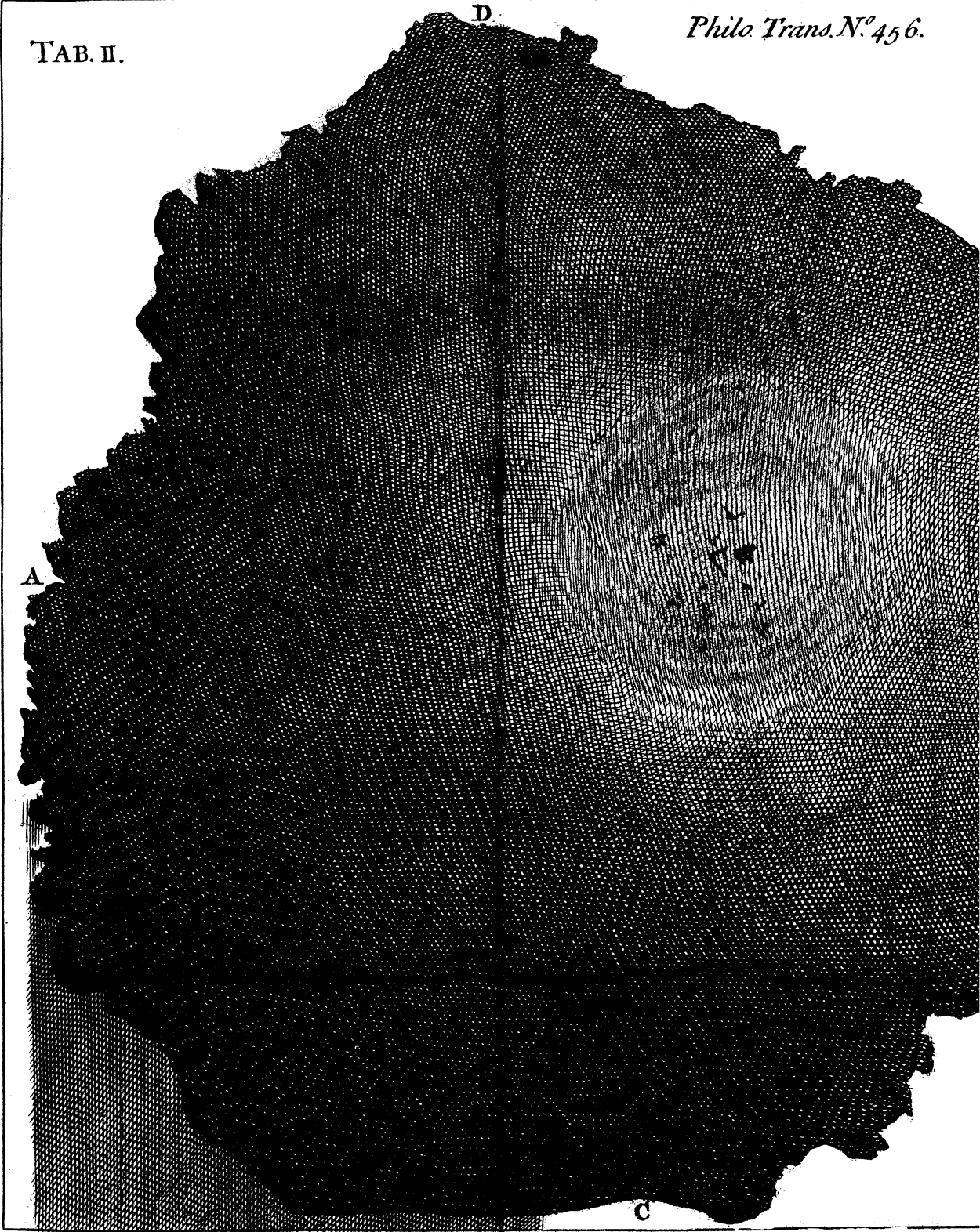
Cum itaque fit $\frac{230 \cdot 3200''}{63} = \frac{736000''}{63} = 11682'' \frac{1}{2}$

quam proxime, = quadrato staturæ corporis secundi; erit (radice quadrata ex 11682 extracta) ipsa corporis secundi statura quam proxime vera = 108 = 9 ped. 0 poll. Angl. Quæ ipsa statura, cum sit inter supra inventas media, pro accuratissima est habenda.

Denique, cum octo capitis altitudines pro statura corporis humani integri satis recte assumere soleamus, & capitis gigantei prioris altitudo sit 20 poll. Angl. erit statura gigantis prioris = 8 . 20'' = 160'' = 13 ped. 4 poll. Angl. Consequenter statura gigantis prioris est ad staturam posterioris, ut 13 *pedes*, 4 *pollices* ad 9 *pedes* in mensura Anglicana, seu ut 160'' ad 180'' seu ut 40 ad 27.

TAB. II.

Philos. Trans. N.º 456.



6.

Fig. 2.

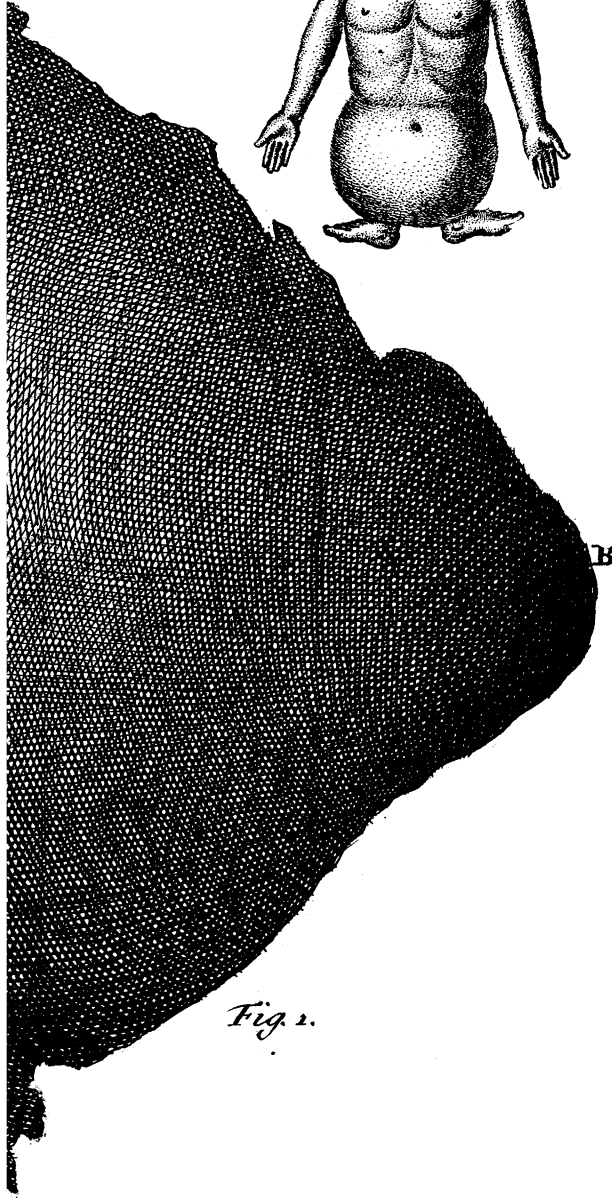
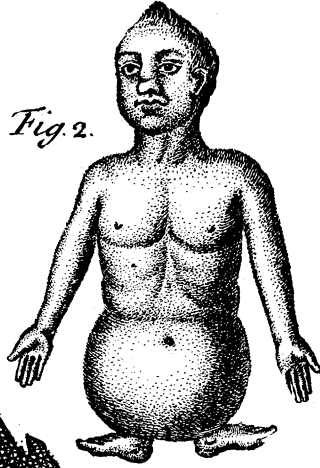


Fig. 1.

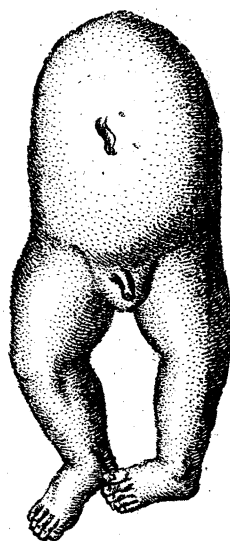
TAB. I.

Philo.



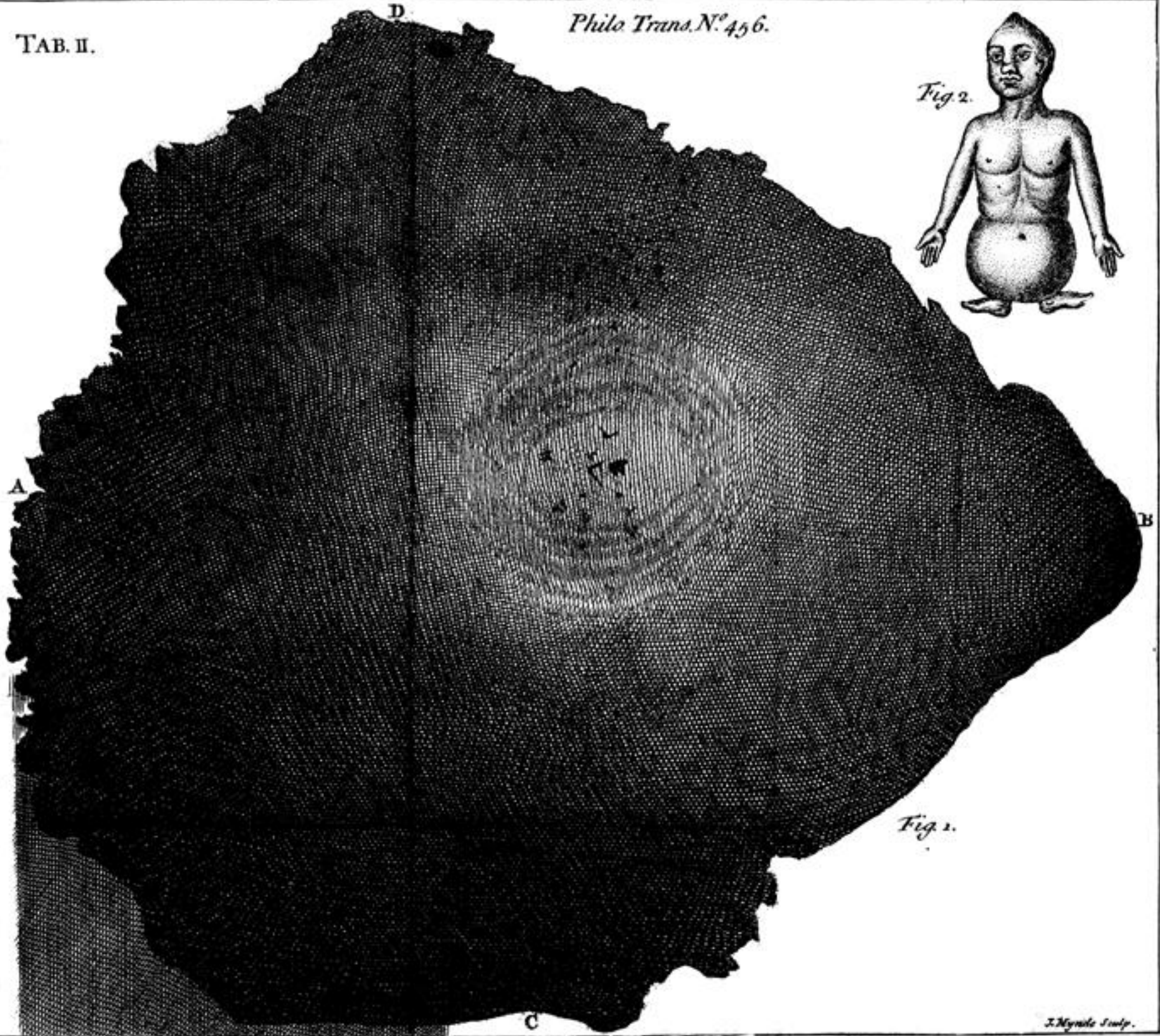


Fig. 1.



TAB. II.

Philos. Trans. N.º 456.



J. Mynde Sculp.

TAB. I.

Philos. Trans. N.º 456.

Fig. 2.

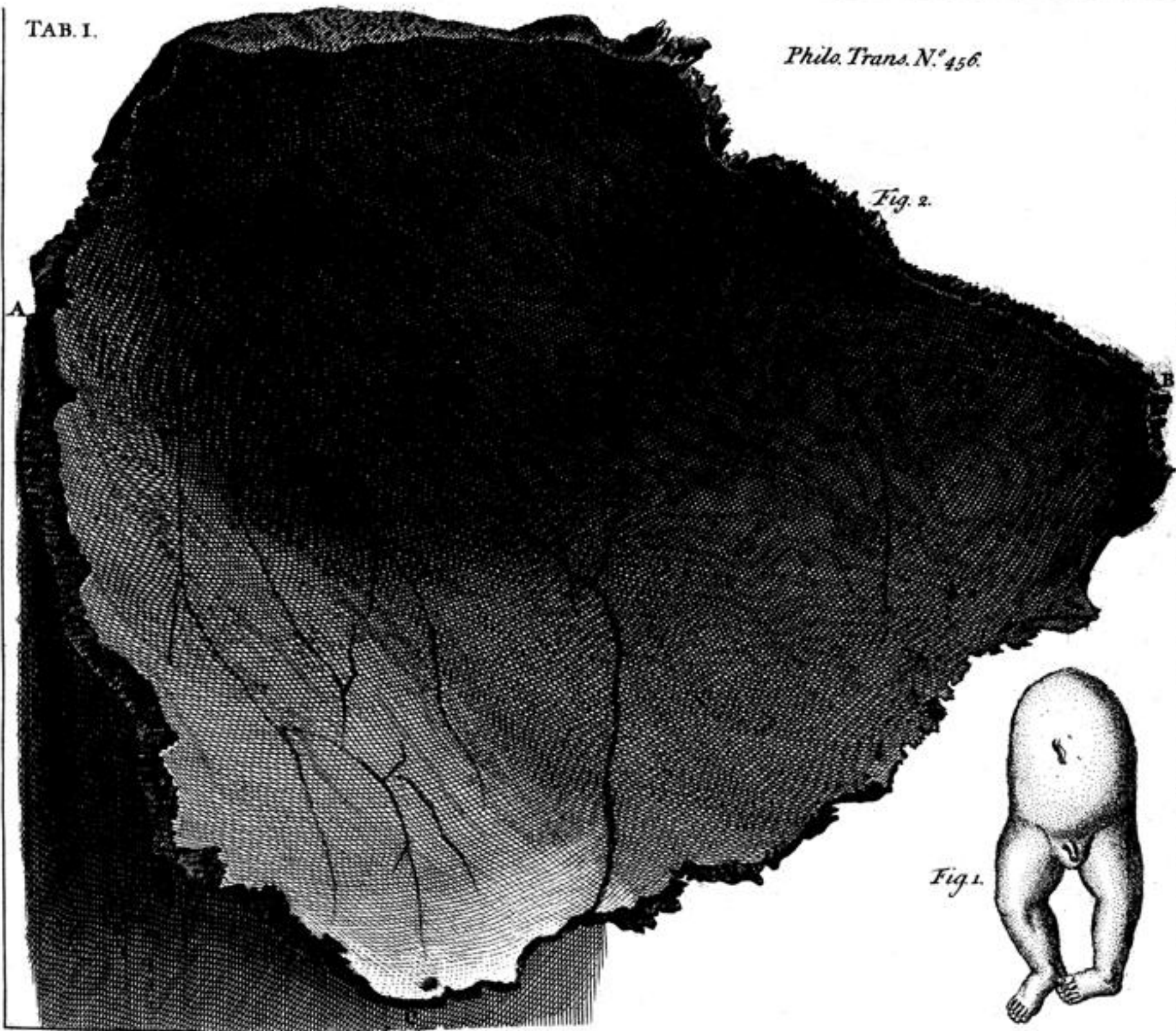


Fig. 1.

