THEATRVM INSTRVMENTORVM ET MACHINARUM Iacobi Beſſoni Delphinatis, Mathematici ingenioſiſsimi.

Cum FRANC. BEROALDI *Figurarum declaratione demonſtratiua.*

LVGDVNI,
Apud Barth. Vincentium.
Cum Priuilegio Regis.
M. D. LXXVIII.

De raritate hujus libri v. Bauer Catal. lib. Rar. Suppl. I. 209.

ORAVSKÉ MÚZEUM

FRANCISCVS BEROALDVS LECTORI.

AMantiſsime lector cum omnibus ſcienciis humanis proponatur ſcopus vtilitas & delectatio, æqum putaui ſi his machinis quarum figuræ voluptatem nõ paruam afferunt, aliquam earum perſpicuam declarationem adderem, vt ij qui non tantum libris, ad muſeorum ornamẽtum, ſed etiam ad e molumentum accipiendum delectantur, his frui poſsint. Quamobrem ſi meo hoc labore iuuaris non ſolum hæc quæ ad machinarum ſepctant di lucidiora reddam, ſed etiam quæ ad theoricã mathematum pertinent breui exponam, non vulgariter, ſed deo fauente, hoc modo vt non ſolum ij qui non omnino videntur incapaces harum artium poſsint breui aliquid percipere, ſed etiam vt docti delectentur. Verum ne te diutius detineam, hæc obſeruabis ſi velis aſſequi ſententiam meæ declarationis, Nẽpe, me conſtituiſſe in margine exteriori Orientem, in oppoſita & interiori Occidentem, in capite Septentrionem, in aduerſa parte Meridiem, item ſæpe vti certa quadam mẽſura literarum loco. Quæ ſi minus eleganter tractauero excuſabis nam ſi in his tractandis abſit eloquentia tamen non requiritur vt ſit adſit non contem nitur. Sed vt illa melius intelligas vide proximam paginam ex qua dictorum rationem intelliges, & ex his fructum cum delectatione percipies.

ORAVSKÉ MÚZEUM P. O. HVIEZDOSLAVA

MACHINARVM HVIVS THEATRI demonſtratiua declaratio.

PROPOSITIO PRIMA.

Inſtrumenta aliquot geometrica, ac mechanica, ratione inuenta pro dimentionibus & fundamentis, quibus maiori ex parte innituntur ſequentes in hoc libro inuentiones.

Declaratio Primæ figuræ.

HIC primum occurrunt ſex conſideranda inſtrumenta, quorum duo quæ ſpectant orientem ſunt circinus & regula, ex quibus tota mathematum praxis pendet, duo proxima ſunt cochleæ partes vna mas quam interiorem dicemus, altera quæ hic vergit ad meridiẽ fœmina quam dicemus partem exteriorem, & reliqua duo occidentalia quibus fit cochlea: quæ ſunt pręcipua totius huius libri inſtrumenta & quæ ad reliquas figuras magnum vſum pręſtant.

PROP. II.

Inſtrumentum nouum & ſingulare aptum, metiendis omnibus partibus cuiuſuis corporis propoſiti ad percipiendam earum ſymmetriam in illius corporis ſtructura.

Declaratio 2. figuræ.

Duabus conſtat regulis ligneis aut æneis aut cuiuſuis materiei hoc inſtrumentum, quarum vna quæ ſuperior dicetur, ab angulo orientis & meridiei vergit ad angulum occidentis & ſeptentrionis: altera perdiculariter à ſeptentrione ad meridiem tendit, harum vtraque in quindecim partes æquales diuiditur, & rurſus ſingulæ in quinque, ita vt in totũ ſint partes ſeptuaginta quinque.

In regula ſuperiori apparet claui caput, cuius vt et totius inſtrumenti partes interiores depictæ ſunt ad occidentem particulariter: quarum prior & meridionalior Alhidada eſt: altera pars ſue figura caput claui eſt, in cuius limbi circulo protractæ ſunt partes ſcalę altimetræ vel menſurarũ, Tertia eſt Teſſella, quę imponitur ſciſſuræ interioris & cõtinuæ regulæ ſuperioris, in ea eſt foramen in quo liberè mouetur claui pars, quę ex altera eminet teſſella huic ſimilis, quę in ſciſſura continua alterius regulæ imponitur, reliqua pars claui cum quinta figura, eſt cochlea qua firmatur inſtrumentum. Eſt etiam in vtraque regula altera rimula breuior & ſtrictior, qua clauus ducitur & reducitur, vt teſſellæ in continuis ſicſſuris moueantur. Hoc autem valde circino Euclidiano à noſtro auctore inuento ſimile eſt, potéſtque ad multos accommodari vſus vt aliâs (Deo fauente) ſum demonſtraturus.

PROP. III.

Circinus nouus & vniuerſalis, deſcribendis ex ordine pyramidum & figurarum rectilinearum, quibusuis figuris planis curuilineis, quæ reſpondeant ordini ipſarum figurarum rectilinearum.

Declaratio 3. figuræ.

Hæ ſunt circini huius excellentis partes. In oriente eſt crus primum à ſeptentrione ad meridiem tendens, cuius pars meridionalis eſt trium cuſpidum quibus incidet pyramis, cuius baſis ad ſeptentrionem eſt triangulum æquilaterum rectilineum, Hæc autem fixa eſt aut voluitur circa crus fixum, ſi moueatur quadrilateræ & aliæ multilateræ figuræ ab hoc circino vno ductu deſcribi non poterunt, nam erit pyramidis latus lateri figuræ propoſitæ ſubtendendum, ſi verò fixa fureit neceſſariæ erunt multæ pyramides pro conſtitutione linearum figuræ.

ORAVSKÉ MÚZEUM P. O. HVIEZDOSLAVA

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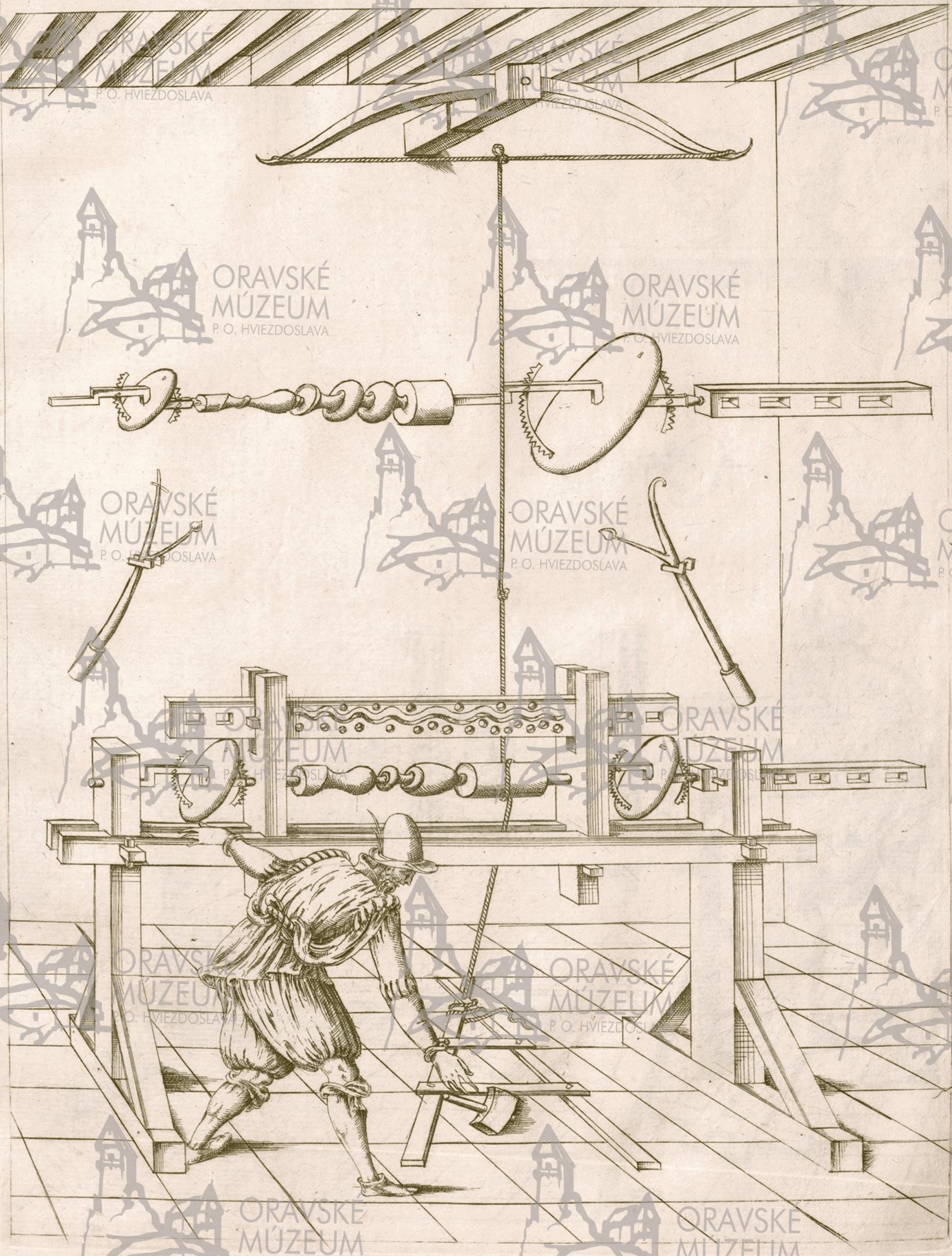
TORNVS NOVVS ET GEOMETRICVS, AD REDVCENDVM IN FORMAM OVALEM QVEMLIBET CYLINDRVM, ET CONVM, CVM SVIS ORNAMENTIS, EX OMNI MATERIA TORNATILI–



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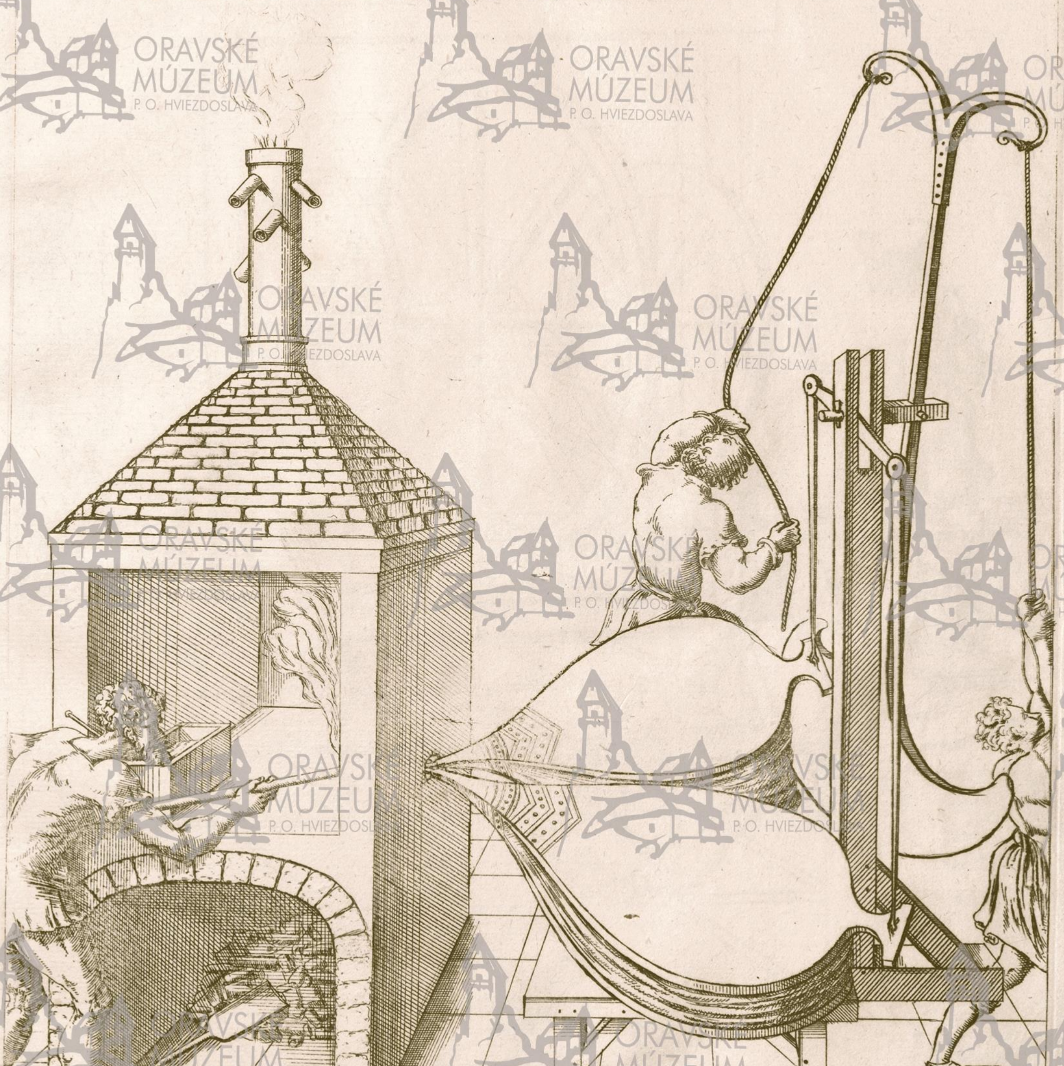
SPECIES ÆQVIPONDII NOVI, QVOD AGITATVM MANV VNIVS, ET ALTERIVS, INSTAR CAMPANÆ PVLSATÆ, TANTVM VIRIVM HABET AD AGENDVM BINOS, EOSQVE IMMANES FOLES IN FODINIS, VT ÆQVARE POSSINT EOS, QVI VEL VI AQVARVM, VEL EQVORVM IN GIRVM ACTORVM, PROMOVENTVR.



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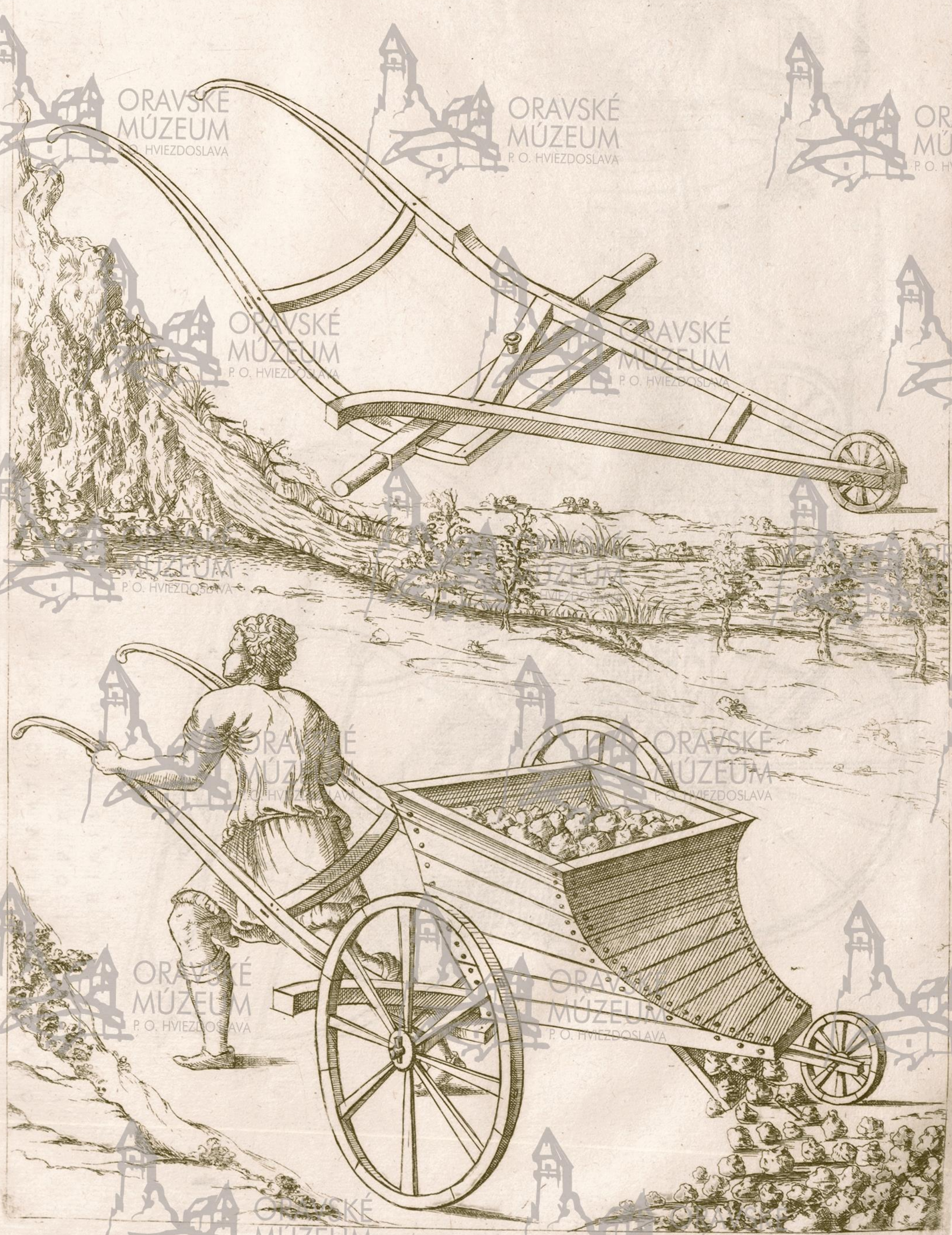
PLOSTELLI GENVS NOVVM, QVO VNIVS HOMINIS OPERA, LOCO ÆQVATO, VEL ACCLIVI, TANTVM POTEST FERENDO ONERI, QVANTVM DVO VEL TRES QVOCVNQVE ALIO MACHINAMENTO.



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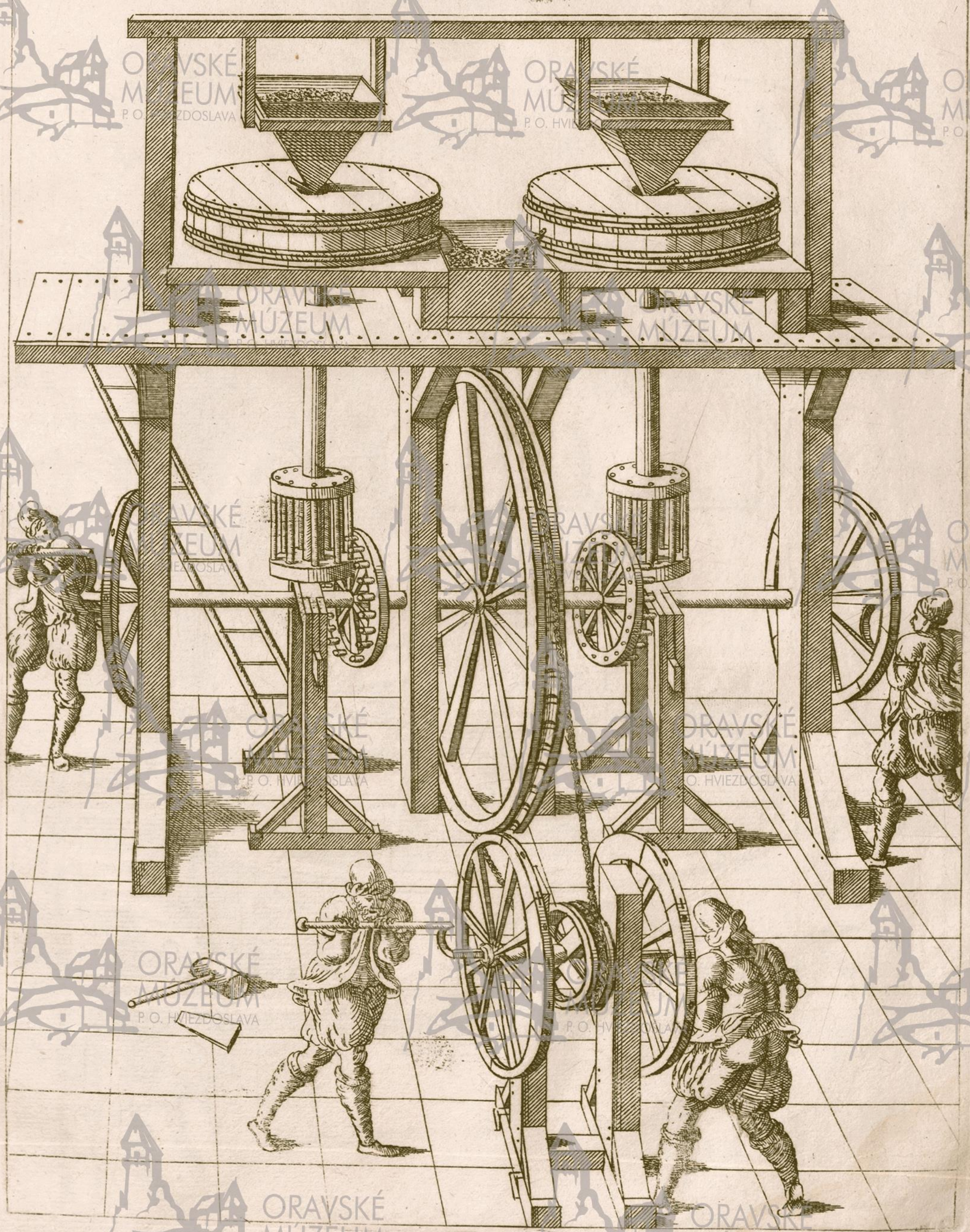
NOVA FORMA MOLETRINARVM, QVIBVS PARVA HOMINVM MANV, TANTVMDEM FARINÆ PENE REDDETVR QVANTVM DVABVS ALIIS MOLETRINIS VEL VENTO, VEL AQVA CIRCVMACTIS, SVPPEDITARI SOLET.



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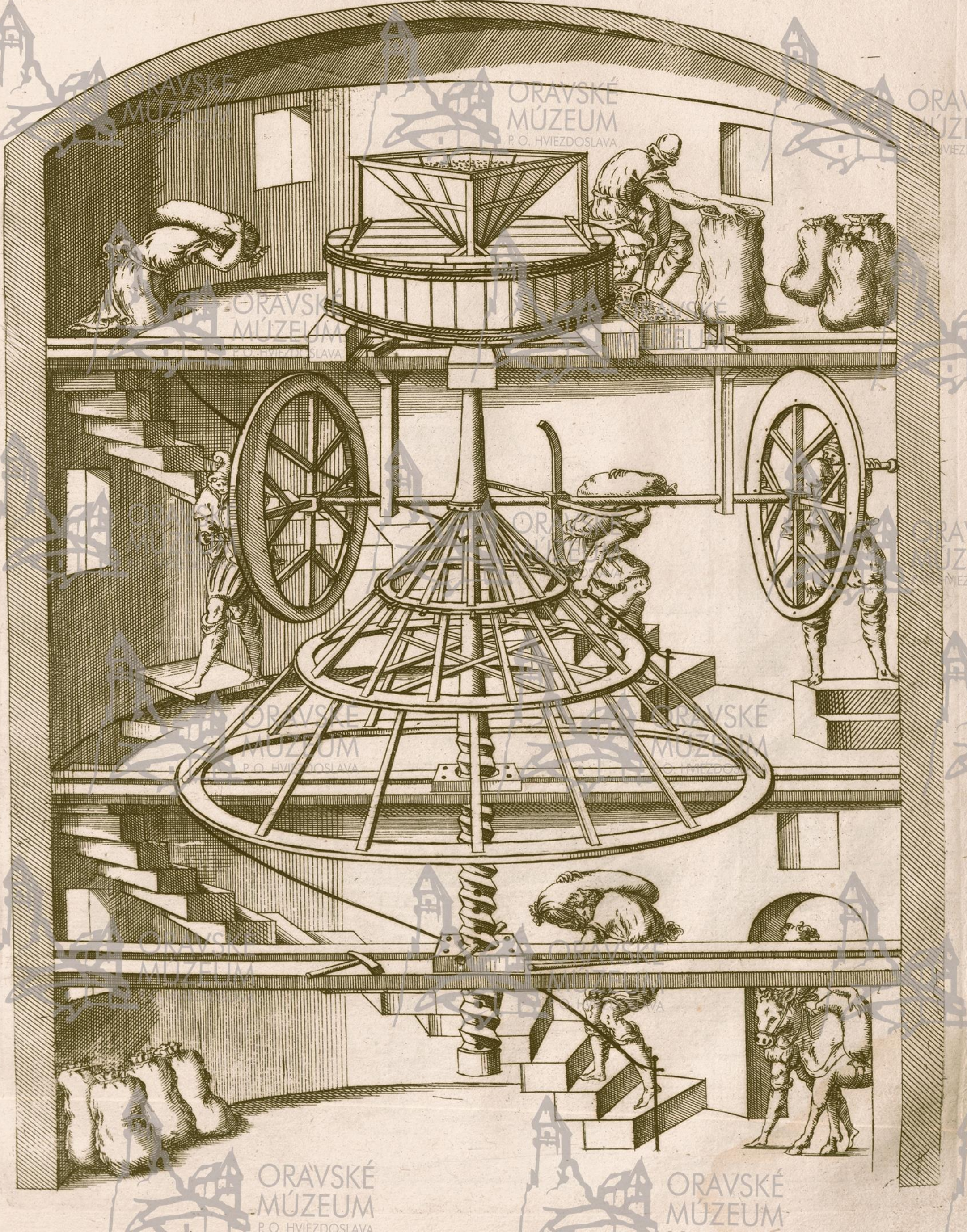
NOVA MOLENDI RATIO, QVA DVORVM HOMINVM OPERA, CITRA AQVARVM AVT VENTORVM VIM, TANTVM FARINÆ TRITICI DEPROMITVR, QVANTVM APTO LOCO AQVIS AVT VENTIS ABVNDE SVPPETENTIBVS, SOLET



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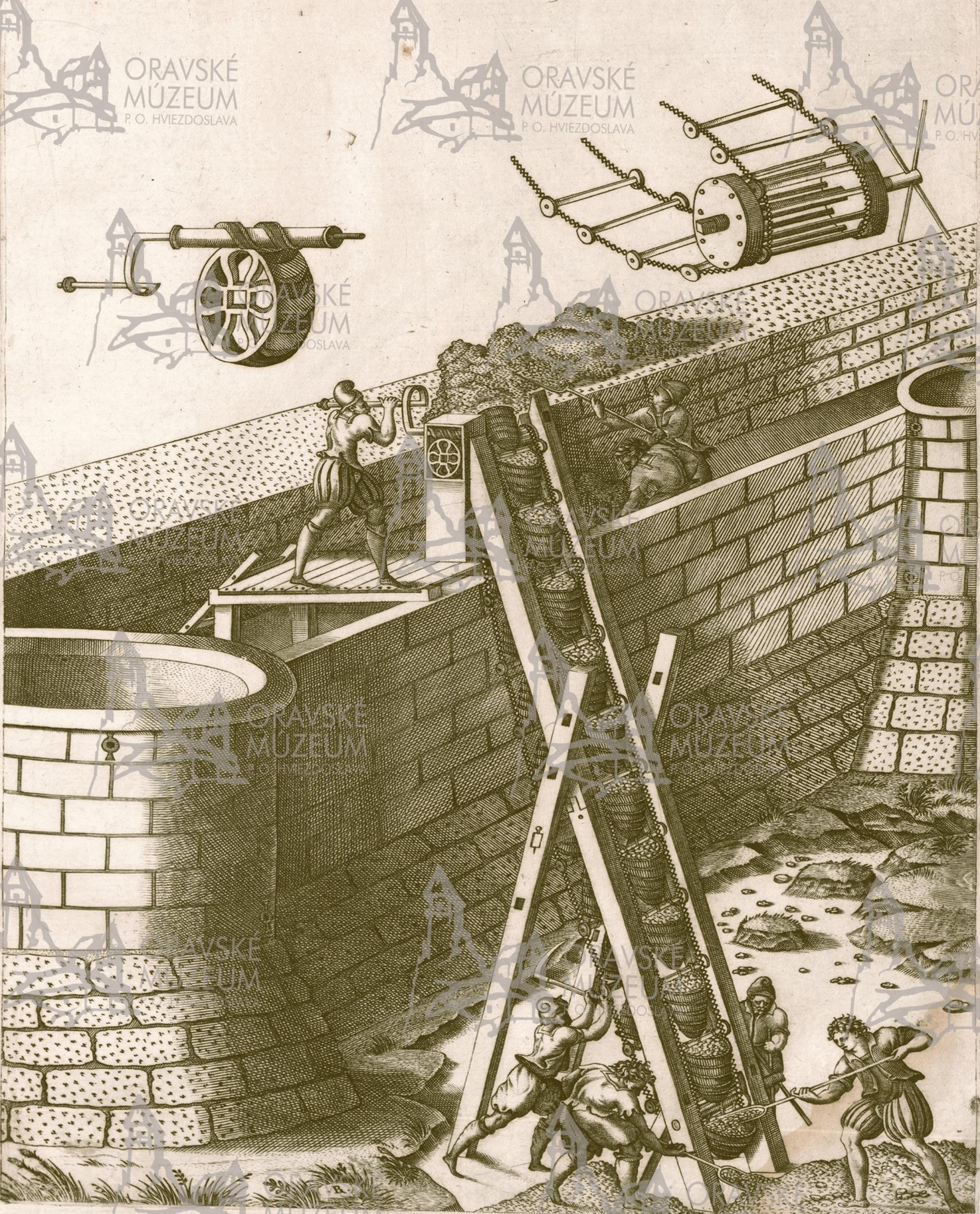
MACHINA NOVA EGERENDÆ TERRÆ E FOSSA
EXIGVO SVMPTV ET OPERARVM NVMERO ET EX
EA TERRA DVCENDO VALLO INTRA MVROS APTA



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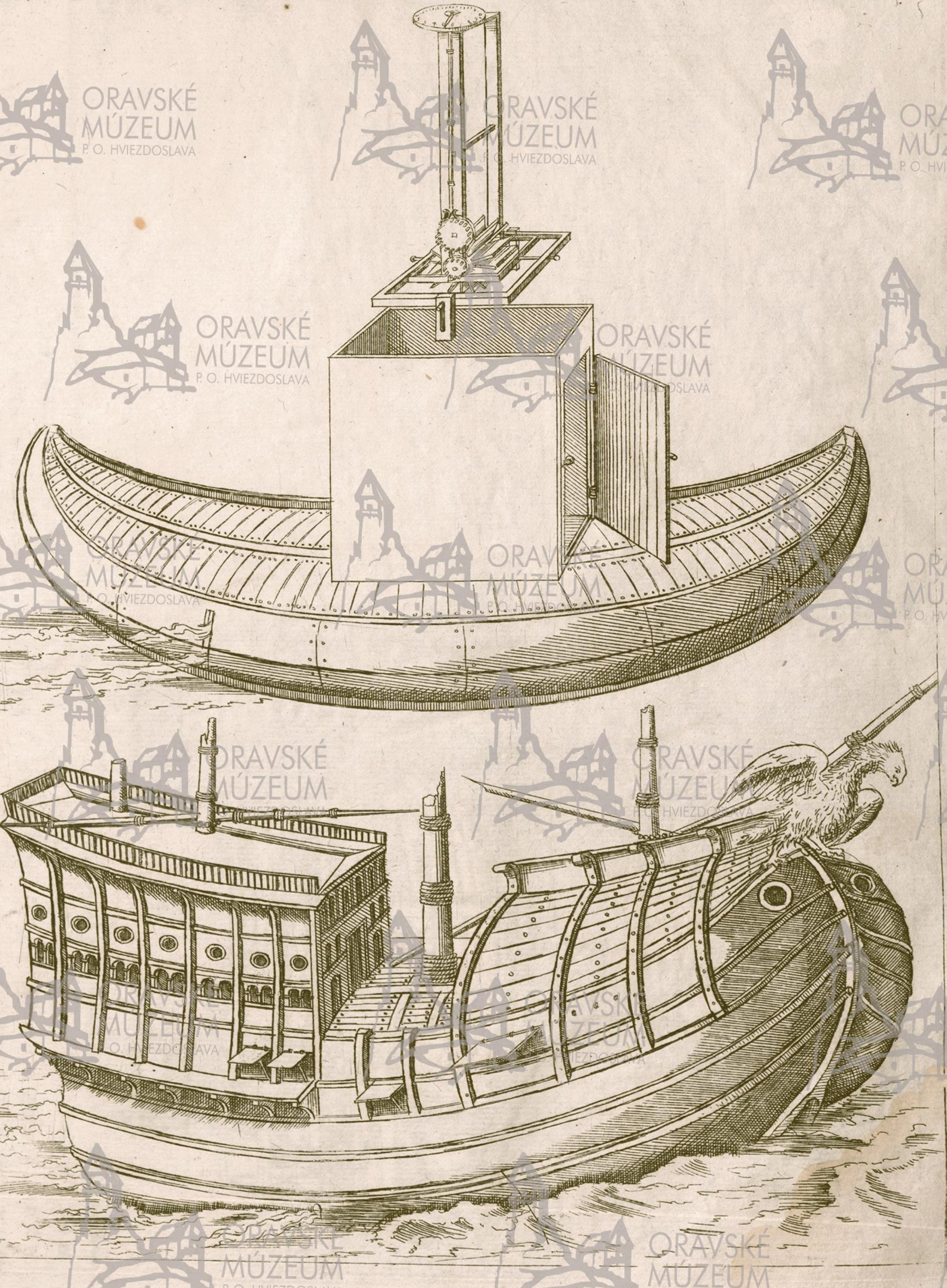
ARTIFICIVM NONDVM VVLGATVM COLLOCATVM IN SENTINA NAVIS, QVA ADMITTITVR AQVA MARIS, QVÆ MOTV NAVIS AGITATA, ROTIS IMPVLSIS ET LIBRATIS, ITINERIS CONFECTI SPACIVM EXACTE DEFINIT.



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