# SAMUEL STURMY, THE MARINERS MAGAZINE <br> Second Edition, London 1679 (The First Edition was 1669 and the Third in 1700) 

## T HE Mariners Magazine, STOR'D WITH THESE

## MATHEMATICAL ARTS:

TThe Rudiments of NAYIGATION and GEOMETRY? The Making and Ufe of divers Matrematicat The Doctrine of TRIAN C L.E S Plain and Spherical. The Art of NAVIGATION, by the Plain-Chart, Mercator's-Chart, and the Arch of a Great Circle. The Art of SURVEYING, GAUGING, and MEASUATNG.
GUNXKERY and ARTIPCOMA/FIREWWORKS. The Rudiments of ASTRONOMX.
CTbe Artof DIALLING.
ALSO WITH

TABLES of LOGARITHMS A N D
Tables of the Sums Declination; of the Latitude and Longitude, Right Alcenfion, and Declination of the moft notable Pischsins; of the Latisnac and Lengitude of Plaser, of
WHRKEONTO ARE ANNEXED,

An Colvidgment of the PENALTIES and FORPETTUAES, by Att of Parlionent, relating to the onfom, and to Nivegmen.

AND,
A COMPENDIUM OF FORTIFICATION
By Capt. S A MUEL S TURMY.
The SECO ND EDITION, diligently Revijcd and carcfully Carrected, By JOHN COLSON, Teacher of the Mathematicks in London.


 Alley in Curalall, and at the efnathor and e-Wheriatr oil Filh-Strect-ftill, 1679.
"The Mariners Magazine" is a large book with chapters about various nautical subjects, including Dialling. The contents are as follow:

> The Compleat
> M A R I N E R
> OR
> N AVIG A T O R.
> The First Book.
> THE
> Mariners Magazine:
> OR,

S T U R M Y's Mathematical and Practical A $\mathbf{R} \mathbf{T}$.
The Second Book.
This Book also includes details on how to make and use the Nocturnal. A working copy of the Nocturnal and a Star Finder are included.

## THE

Mariners Magazine; OR,
STURMYS
Mathematical and Practical
A $\mathbf{R} \mathbf{T} \mathbf{S}$.
The Third Book.


The Diagram of the Gnomonical Scale

$\not Æ q u i n o c t i a l$ Dial
THE
Compleat Sea Artist:
$A \underset{\mathbf{O F}^{\mathrm{OR} \text { THE }}}{\mathbf{R}} \mathbf{T}$
NAVIGATION.
The Fourth Book.
Book four also includes, The Art of Gaging of Vessels, The Art of Gunnery and Artificial Fire-Works for Recreation.

Number of Pages: 456, 41 on Dialling. Illustrations: Many with several fold out sheets.

Page Size: 12 " $\times 7^{1 / 4} 4^{\prime \prime}$
Tables: 46 pages.


A working model of the Nocturnal The ART of Surveying of Land SEA-COMPASS:

The Description of the
COMPASS, STAFF, and CHAIN. The Fifth Bоoк.
The Sixth BOOK.
Wherein is contained a Definition of the Circles of the Sphere, with the manner how to resolve divers necessary Astronomical Propositions by Projection, and also by the Logarithms.

The Seventh BOOK

## CONTAINING

## The ART

OF
DIALLING BY THE
Gnomonical Scale,
AS ALSO BY
C A LCULATION. SHEWING
The Making of all DIALS, within Doors or without, upon any Wall, Cieling, or Floors, wheresoever the Direct or Reflected Beams of the Sun may come.
AND

How to Colour, Guild, and Paint Dials; And to fasten the Gnomon in Stone or Wood.

C H A P. I.
Of the kinds of Dials.
C HAP. II.
Theorems premised.
C H A P. I I I.
How to make a Polar Dial, commonly called an Equinoctial Dial, and how to place it.

C H A P. I V.
How to make the direct Æquinoctial Dial, or Polar Plane.
C H A P. V.
How to make the Eastor WestÆquinoctial Dial, Lat. 51 d. 30 m .
C H A P. V I.
Of the kinds of Oblique Dials.
C H A P. V I I.
How to make the Vertical Dial, commonly called the Horizontal Dial.
C H A P. V I I I.
A South or North Horizontal Dial, commonly called, an upright North or South Dial, and how to make it.

C H A P. I X.
How to deliniate a South Plane Reclining 67 deg. in the Latitude of 51 deg. 30 min . Northerly.

C H A P. X.
How to find the Declination of a Plane.
C H A P. X I.
How to find the requisites in a Declining Horizontal Dial, commonly called a South erect Decliner, declining from the South Eastwards 32 deg. 30 min . in the Latitude of 51 deg. 30 min .

C H A P. X II.
How to draw the Hour-lines in a Declining Horizontal, or South erect Dial, declining 32 deg. 30 min . from the South Eastward, the Latitude being 51 deg. 30 min .

> С Н A P. X I I I.

How to delineate an East or West Reclining or Inclining dial. C H A P. X IV.
Of Declining, Reclining, or Inclining Planes.


The Construction of a Vertical Declining Dial

C H A P. X V.
How to find the requisites, and how to delineate a South Reclining or North Inclining Dial.

C H A P. X V I.
Another way to delineate Reclining or Inclining Decliners.
C H A P. X V I I.
How to find the Requisites, and how to delineate a North Declining Recliner, and a South Declining Incliner.

C H A P. X V I I I.
How to delineate such Planes wherein the Stiles height is small, not exceeding 15 degrees.

> C H A P. X I X.

How to draw a reflected Dial upon the Cieling of a Room.
C H A P. X X.
How to make a Universal Dial on a Globe; and to cover it if it be required.

## CANON TRIANGULORUM LOGARITHMICUS:

OR, A

## TABLE

OF
ARTIFICIAL SINES
AND
TANGENTS
TO
Every D E G R E E and MIN UTE OF THE
QUADRANT.
The Common Radius being 10, 000000.

## CHILIADES <br> DECEM <br> LOGARITHMORUM, O R

The Logarithmes of all Numbers
From an Unite to 10000: Whereby the Logarithmes of all Numbers under 1000000 may be speedily deduced.

First Composed by that Excellent Mathematician
Mr. HENRYBRIGGS,
Professor of Geometry in the University of Oxford.

## A <br> SUMMARY

OF SUCH
PENALTIES and FORFEITURES As are Limited and Appointed by Several

## A C T S

OF
PARLIAMENT
Relating to the
CUSTOMS and NAVIGATION. As ALSO
For the Exporting and Importing of
PROHIBITED GOODS.


A Multiple Dial
BOTH
Geometrically and Instrumentally BY A

## S C A L E,

The Making whereof is shewed by the Tables, and their Use, both of the Tables and the Scale, for speedy Protracting of any Fort consisting of 8 Bulwarks, whose Bastion-Angles shall not exceed 90 Degrees ; and so the like for BastionAngles of 12 Bulwarks.

WRITTEN BY
P H I LIP STAYNRED
Professor and Teacher of the MATHEMATICKS in the City of B R I S T OL.

FINIS.

