

unnoticed revolutions?

time and money

History of information
Tuesday
Feb 25, 2014



1827	Account	£	Rs	1827	Carried up	£	Rs
Jan 1.	Betty Farmer	-	1	21.	M ^r Butcher sent to the	484	1 11
4	Children's books	10	6		School of industry by Westminster		
5	Placed in the 3 ^d Cents	300	.		2 female formerly society		
-	to Thackeray's account	69	19		(during the Society's absence, paid 10)		
-	Lewis for a sheet	1	1	24	Pauli (Furness)	15	.
8.	Makes for Charities	4	16		Brown (furnished 2 ^d up)	2	12
	Hodgkinson's bill	22	16		Rufel & Prigg (lab)	2	10
	Steele's d ^r	7	10 6	26	Arnold & James	2	17 6
11	L. M.	5	.	30	Couper's bill	28	15 4
12	D ^r to Masterman on				D ^r black silk	4	18 10
	W ^r Butler's acc ^t of 1826	42	.		Rendelph & Fitzgibbon	3	.
16	Haughton Stationer	7	9 8	Feb 5	M ^r Maasdon (arrived)	25	6
	Hewitt & James	16	6		M ^r Wiggles' bill	4	6
	D ^r exp ^t for L ^y R. Howard	3	17		Draughts (Nichols) (Cdnay's)	2	.
	Cherry	12	.		M ^r Day's bill	10	2
	Arnould (T ^r Viner)	3	6	9	Thompson's friend society	5	.
					paid at 2 ^d 52 to Bond St	2	10
					Cdnay's for drawings	11	1 10
					J. Nicholson's book	10	1 8
					23 Redmayne (L ^y Howard's)	22	16 6
					25. Balance of business acc ^t	627	8 11
					from Jan 1826. Taylor's, Feltner's		
					Hollingsworth, Teller, Pinner		
					Charles &c. including 20		
					admission to garden Dec 26		

Advice to a young Tradesman, written by an old One.

To my Friend A. B.

As you have desired it of me, I write the following Hints, which have been of Service to me, and may, if observed, be so to you.

REMEMBER that TIME is Money. He that can earn Ten Shillings a Day by his Labour, and goes abroad, or sits idle one Half of that Day, tho' he spends but Six-pence during his Diversion or Idleness, ought not to reckon that the only Expence; he has really spent, or rather thrown away Five Shillings besides.

what day?

All a Tiwitter?

tuesday: *Originally cognate with or formed similarly to Old Frisian tīesdei , ... the genitive of the Germanic base of the name of (the god) Tiw*

mardi

dienstag

terça-feira

मंगलवार

星期二

火曜日

יום שלישי

(يوم) الثلاثاء

feverish dates?

pure and simple?

purification Anglo-Norman

feverer , feverrer ,

feveryer, feverzere ,

feverell , februer ,

februare, februarie , etc., ...

means of purification,

expiatory offerings, of

uncertain origin

février [ventôse]

Februar

feverio

Phalguna 6

18 Bing-Yin

Adar 1 25

Rabi Iath-Thani 24

Esfand 6



History of information

Tuesday

Feb 25, 2014

happy 5 times a year?

4712 - Chinese

New Year: Jan 31 (horse)

1392 - Persian

New Year: March 20 (04:03:13 am)

5774 - Jewish

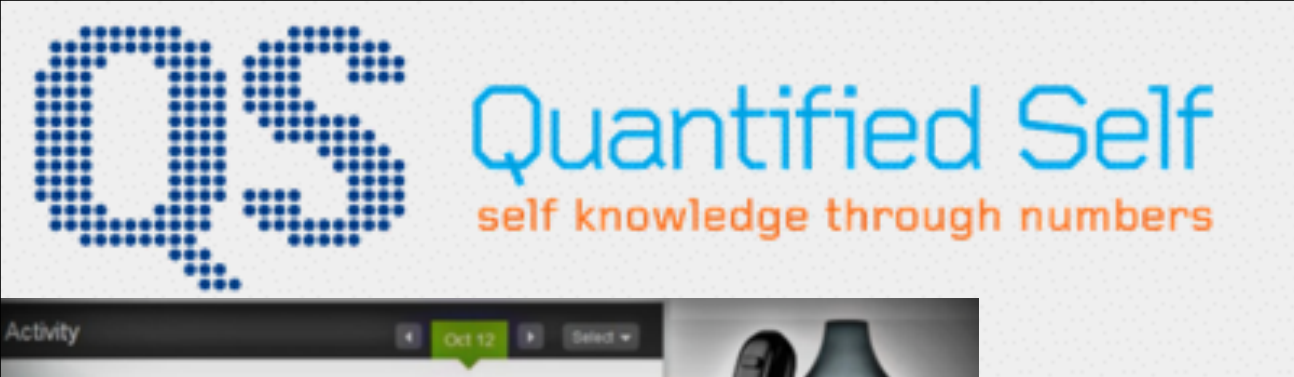
New Year: September 25

1435 - Islamic

New Year: October 24

when are we?





“My pulse, as yours,
doth temperately keep time” —*Hamlet*

running on time

the quantified self



The Economist World politics Business & finance Economics Science & technology Culture

Technology Quarterly: Q1 2012

the quantified self

Counting every moment

Technology and health: Measuring your everyday activities can help improve your quality of life, according to aficionados of “self-tracking”

14th March 2012 | From the print edition

Like 1k Tweet 955

THE idea of measuring things to chart progress towards a goal is commonplace in large organisations. Governments tot up trade figures, hospital waiting times and exam results; companies measure their turnover, profits and inventory. But the use of metrics by individuals is rather less widespread, with the notable exceptions of people who are trying to lose weight or improve their fitness. Most people do not routinely record their moods, sleeping patterns or activity levels, track how much alcohol or caffeine they drink or chart how



reading

Fisherites:

Gabriel Freeman

Elise Tam Cooc

Neither/both

George Mulcaire

Ciara Crowley

Thompsonites

Helen Oliver

Vandana Pai

overview

why

fighting time

technologies of time

time control

reading response

accounting

balancing

please watch your word count

putting the other "Rs" in their place

"The Scientific Revolution outshines everything since the rise of Christianity and reduces the Renaissance and Reformation to the rank of mere episodes, mere internal displacements within the system of medieval Christianity."

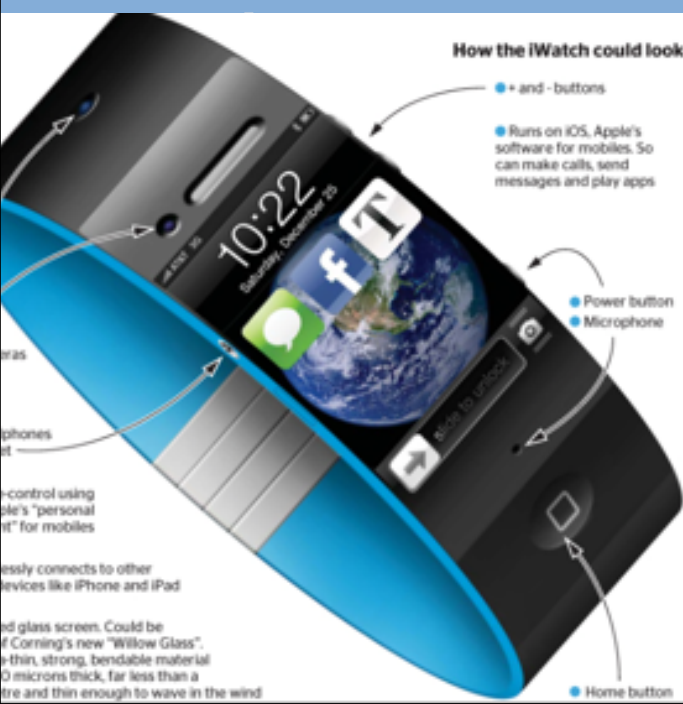
— Herbert Butterfield,
The Origins of Modern Science, 1300-1800, 1948

key machines

why
fighting time
technologies of time
time control

"It is commonplace that the years between 1300 and 1650 saw within the intellectual culture of Western Europe important changes in the apprehension of time."

E.P.Thompson



"The clock, not the steam engine, is the key machine of the modern industrial age ... even today no other machine is ubiquitous."

—Lewis Mumford, *Technics & Civilization*, 1934

putting the other "Rs" in their place

"The Scientific Revolution outshines everything since the rise of Christianity and reduces the Renaissance and Reformation to the rank of mere episodes, mere internal displacements within the system of medieval Christianity."

— Herbert Butterfield,
The Origins of Modern Science, 1300-1800, 1948

accounting for time

"Then, between ... 1275 and 1325 ... Europe's first mechanical clock and canon ... marine charts, perspective painting ... and double-entry bookkeeping ... decades unmatched in their radical changes in perception until the era of Einstein ... In the past seven centuries bookkeeping has done more to change the perceptions of more bright minds than any single innovation in philosophy or science."

—Alfred Crosby, *The Measure of Reality*, 1997



The image shows two pages of a handwritten double-entry ledger. The left page is dated 1827 and the right page is dated 1828. Both pages show accounts in pounds (£) and shillings (s). The entries are written in cursive and include various names and amounts.

1827	Account	£	s
Jan 1	Betty Farmer	1	0
4	Children's books	10	6
5	Placed in the 3 ^d Gate 300		
	to Thackeray's account	69	19
	debits for a month	1	1
8	Notes for Charities	4	16
	Widgkinson's bill	22	16
	Stubbs's d.	7	10 6
11	L. M.	5	
12	D. to Masterman on		
	W. Butler's acct. of 1826	42	0
16	Haughton Stationer	7	9 8
	Woods & James	16	6
	D. Druff for L.P.R. House	3	17
	Ungary	12	
	Kennell (T. Man)	3	6
		48	1 11

1828	Account	£	s
Jan 1	Carried up	48	1 11
21	M. Butler's bill to the		
	School of Industry & Agriculture	1	0
	to Francis, formerly County		
	of the County of Middlesex		
24	Pauli (Francis)	15	
	Brown (James) Druff	2	12
	Rufus & Prigg (Ld)	2	10
26	House & James	2	17 6
30	Crofton's bill	28	15 4
	D. Black's bill	4	18 10
	Reverend Mr. F. F. F.	3	
Feb 15	M. Thackeray (Account)	25	6
	M. Thackeray's bill	7	6
	Druffing (Bristol) (Ld)	2	
	M. Thackeray's bill	10	2
9	Thackeray's friend's account	5	
	Druff at 252 R. Road	2	10
	Chapman for Druffing	11	1 10
	L. Thackeray's bill	10	1 8
23	Reverend Mr. F. F. F.		
28	Reverend Mr. F. F. F.	22	16 8
	Druffing & James	62	7 11

time and money

"Time is money"

James The American Worker
INSTRUCTOR:
James OR, James
Young Man's Best Companion.
CONTAINING,
Spelling, Reading, Writing, and Arithmetick,
in an easier Way than any yet published; and how to qualify any Person for Business, without the Help of a Master.
Instructions to write Variety of Hands, with Copies both in Prose and Verse. How to write Letters on Business or Friendship. Forms of Indentures, Bonds, Bills of Receipts, Wills, Leases, Releases, &c.
Also Merchants Accompts, and a short and easy Method of Shop and Book-keeping; with a Description of the several American Colonies.
Together with the Carpenter's Plain and Exact Rule: Shewing how to measure Carpenters, Joiners, Sawyers, Bricklayers, Plasterers, Plumbers, Masons, Glaziers, and Painters Work. How to undertake each Work, and at what Price; the Rates of each Commodity, and the common Wages of Journeymen; with Genter's Line, and Guggenbal's Description of the Sliding-Rule.
Likewise the PRACTICAL GAUGER made Easy; the Art of Dialling, and how to erect and fix any Dial; with Instructions for Dying, Colouring, and making Colours.
* To which is added,
The POOR PLANTERS PHYSICIAN.
With Instructions for Marking on Linnen; how to Pickle and Preserve; to make divers Sorts of Wine; and many excellent Plasters, and Medicines, necessary in all Families.
And also
Prudent Advice to young Tradesmen and Dealers.
The whole better adapted to these American Colonies, than any other Book of the like Kind.
By **GEORGE FISHER**, Accomptant.
The Ninth Edition Revised and Corrected.
PHILADELPHIA: Printed by B. FRAZEE and D. HALL, at the New-Printing-Office, in Arch-Street, 1748.

Advice to a young Tradesman, written by an old One.

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"Hear it not, Duncan, for it is a knell
That summons thee to Heaven or to Hell"

—Macbeth

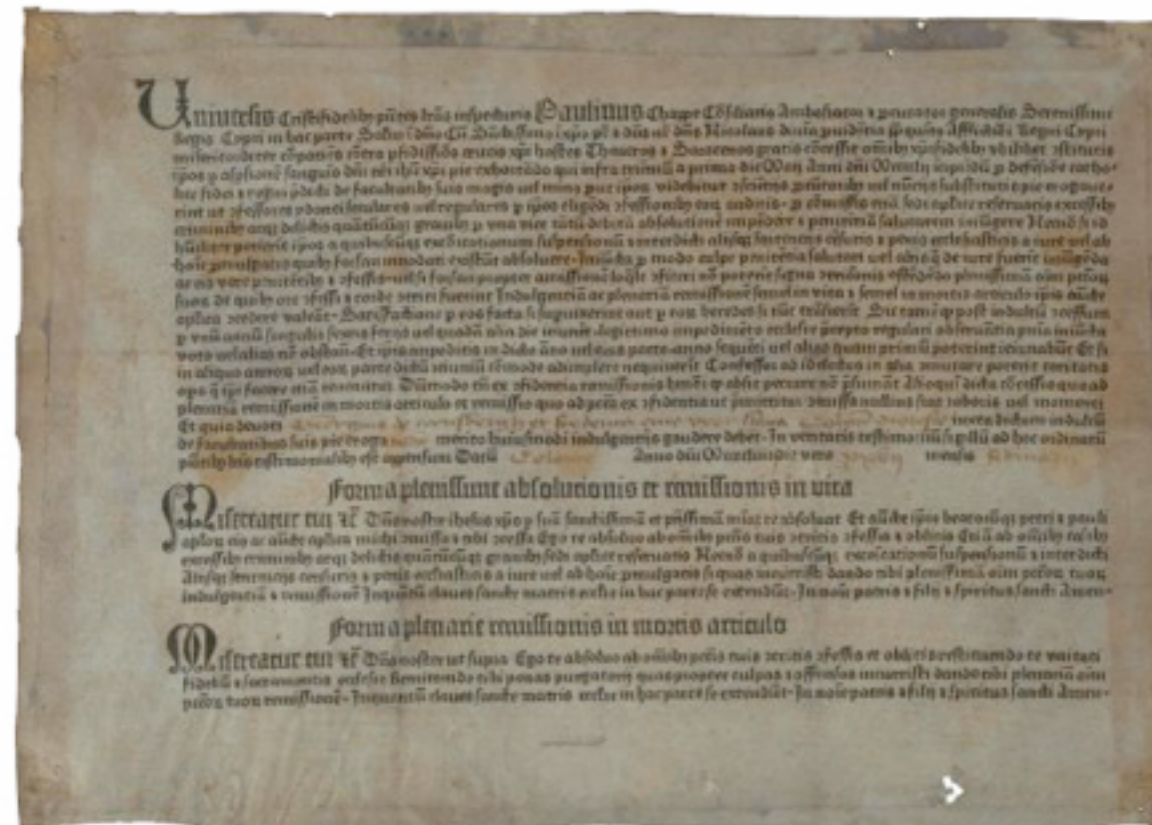
a western indulgence

time, money, and eternity

1309:An indulgence to pardon a year's worth of sin costs one penny



Pope Clement V
1260–1314





" 'Merchant's time' which Jacques Le Goff ...
opposed to the time of the medieval church."

--Thompson

accounting shift

"ceci tuera cela"

"The Palace of the Bourse [stock exchange] ...
The architecture of a building should be
adapted to its function. As for the
function ... it fills that to perfection: it
is a stock exchange in France just as it would
have been a temple in Greece ... on days of
high religious solemnity, the theory of
stockbrokers and jobbers can be majestically
expounded"



—Victor Hugo, *Notre Dame de Paris*, 1831

real determinism?

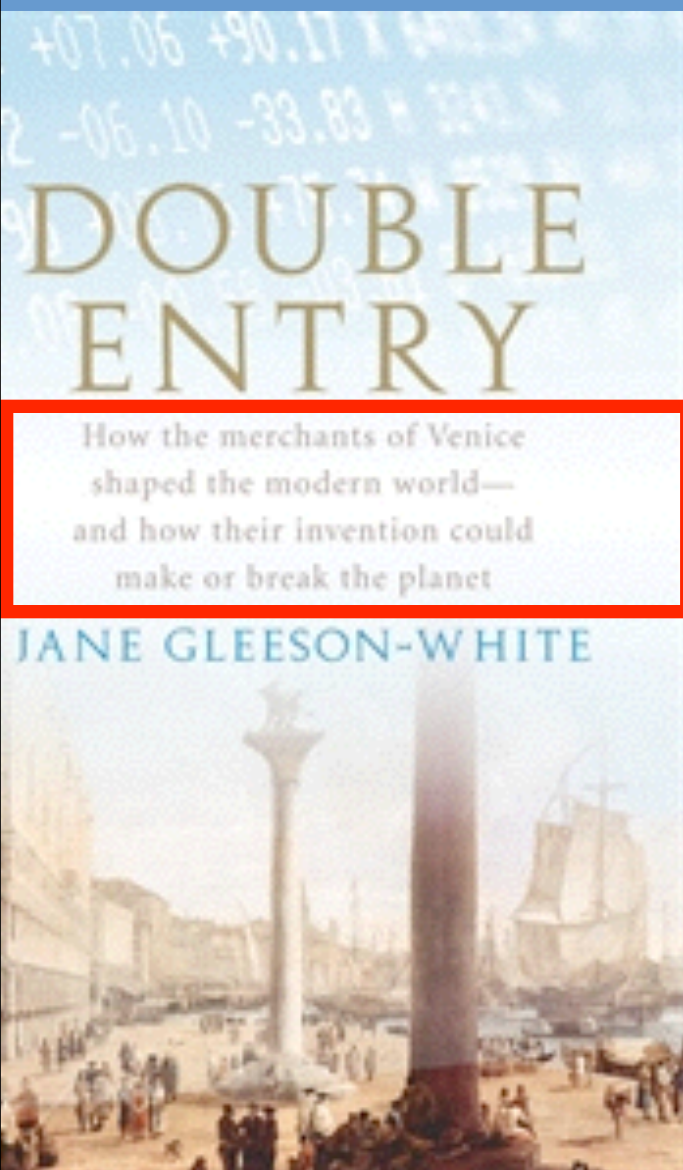
Max Weber (1864-1920) **'Protestant ethic'**

rational capitalist accounting

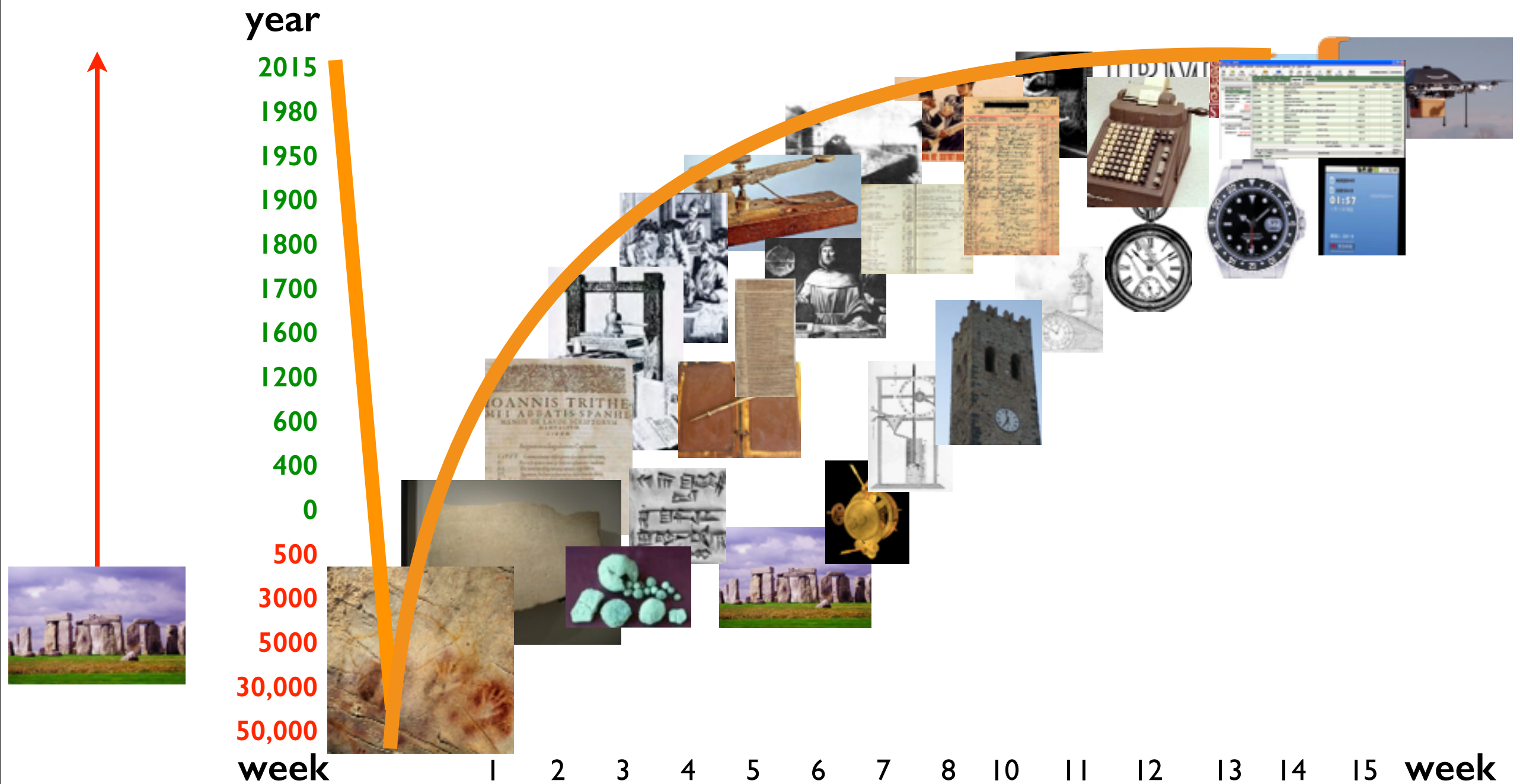
'desacralization' (cp Darnton)

Werner Sombart (1863-1941)

"abstraction of profit [leads to] economic
calculation ... systemic organization ...
depersonalization."



getting there



overview

why

fighting time

technologies of time

time control

reading response

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balancing

8th century bce: 10 month calendar
713 bce: 2 months added
153 bce: beginning of the year moved
from March to January

Roman rules

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Julius Caesar (100 - 44 bce)

Julian Calendar

fixing the troublesome equinox

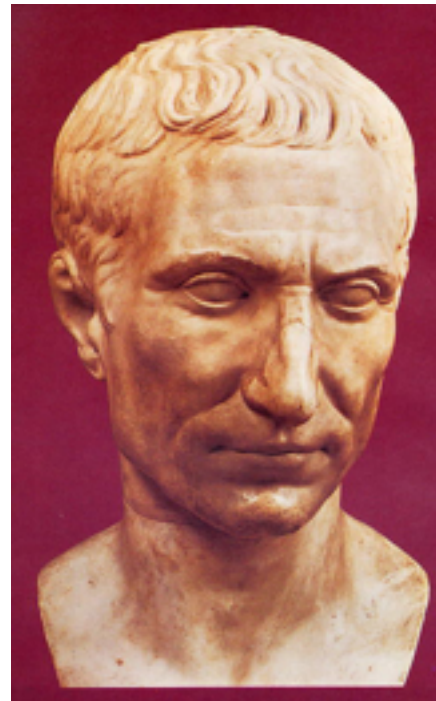
46 bce: 445 days

45 bce: 365

Augustus (63 bce - 14 ce)

8 bce: a further course correction

Augustan Calendar





Luigi Lilio
d 1576



Gregory XII
1502-1585

"Of all the days i' the year, I came to't that day
that our last king Hamlet overcame Fortinbras."

further uncertainties

the year dot:

Dionysius Exiguus (c 470-544 ce)

day one

January 1 (Julian Calendar)

March 25 (Ascension, Council of Tours, 567)

the equal hour

14th century

```
java.lang.Object  
    java.util.Calendar  
        java.util.GregorianCalendar
```

the struggle for Easter

```
public class GregorianCalendar  
    extends Calendar
```

1582: Gregorian Calendar (leap years, centurial years)

the big leap

Thursday October 4 to Friday October 15



John Wallis
1616–1703

QUARTER DAYS

Lady Day 25 March
Midsummer 24 June
Michaelmas 29 Sept
Christmas 25 Dec

old time religion

Orthodox & Protestant resistance

"latent Popish interest"

--John Wallis, **FRS**,
Savilian Professor of Geometry, Oxford

popular superstition

The Landlord calls for Rent before 'tis due,
King's Tax, and Windows, Poor, and Parson too;
With Numbers more, our Grandsires never knew.
Domestick Servants all will have their Pay,
And force their Masters e're the Quarter Day.

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Si, à l'expiration des six années, le présent Traité n'est pas dénoncé un an à l'avance, il continuera à être obligatoire d'année en année, jusqu'à ce que l'une des deux Hautes Parties contractantes ait annoncé à l'autre, mais un an à l'avance, son intention d'en faire cesser les effets.

En foi de quoi, les Plénipotentiaires respectifs ont signé le présent Traité et y ont apposé le cachet de leurs armes.

Fait à Saint-Petersbourg le 14 (9) juin de l'an de grâce 1857.

(L. S.) *Signé* MORNÏ.

(L. S.) *Signé* GORTCHACOW.

(L. S.) *Signé* BROCK.



History of copyright law

From Wikipedia, the free encyclopedia

The history of copyright law starts with early privileges and monopolies granted to [printers of books](#). The British [Statute of Anne](#) 1709, full title "An Act for the Encouragement of Learning, by vesting the Copies of Printed Books in the Authors or purchasers of such Copies, during the Times therein mentioned", was the first [copyright](#) statute. Initially copyright law only applied to the copying of books. Over time other uses such as translations and [derivative works](#) were made subject to copyright and copyright now covers a wide range of works, including [maps](#), [performances](#), [paintings](#), [photographs](#), [sound recordings](#), [motion pictures](#) and [computer programs](#).

oblique dates

"We talked much of Nostradamus his prophecy of these times, and the burning of the City of London, some of whose verses are put into Booker's Almanac this year My Lady Carteret herself did tell us how abundance of pieces of burnt paper were cast by the wind .. .she took one up ... wheron there remained no more nor less than these words: "Time is, it is done"

–Pepys, February 3, 1666/7

The Statute of Anne, 1710 (1/6)

(transcription below image)

This is the first copyright act in the world, the British Statute of Anne, from 1710. This facsimile is taken from British Library, 8 Anne c. 19. Several monographs on copyright date this text to 1709. However, 1710 is the correct date, see John Feather, *The Book Trade in Politics: The Making of the Copyright Act of 1710*, "Publishing History", 19(8), 1980, p. 39 (note 3). Transcription from fraktur is available below the image. Words in roman type in the original are formatted here as *italics*.



fighting time

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decimalization

French revolution

year 1 again (1793)

10 days a week

10 months a year

New Year September

an urban revolution?

Vendémiaire, Brumaire, Frimiaire, Nivôse, Pluviôse, Ventose,
Germinal, Floréal, Prairial, Messidor, Thermidor, Fructidor

and again?

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Internet Time Swatch .beat

What is a Swatch .beat?

We have devided up the day into 1000 ".beats".
So, one Swatch ".Beat" is equivalent to 1 Minute
26.4 Seconds.

When did Internet Time start?

The BMT Meridian was inaugurated on October
23rd, 1998, in the presence of Nicholas
Negroponte, founder and director of the media
laboratory at the Massachusetts Institute of
Technology.

Where is the Internet Time meridian?

Biel Meantime (BMT) is the universal reference
for Internet time. A day in Internet time begins
at midnight BMT (@000 Swatch .Beats)
(Central European Wintertime).
The Meridian is marked for all to see on the
facade of the Swatch International
headquarters on Jakob-Staempfli Street, Biel,
Switzerland.

overview

why

fighting time

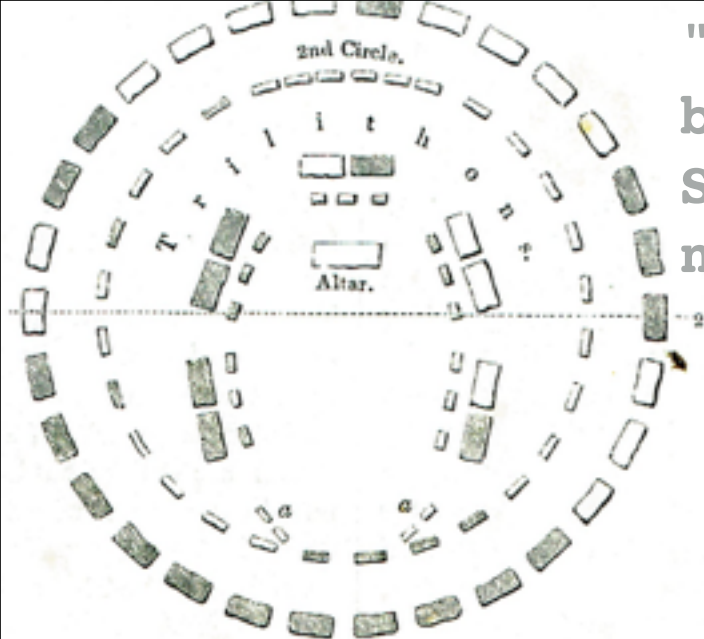
technologies of time

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"Most of what has been written about Stonehenge is nonsense"

R.J.C. Atkinson

c. 5000 bce

'World's oldest calendar' discovered in Scottish field



the long then

why

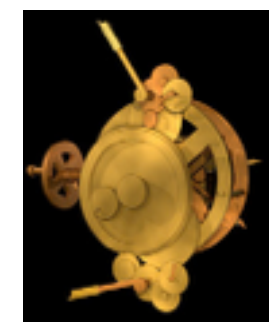
fighting time

technologies of

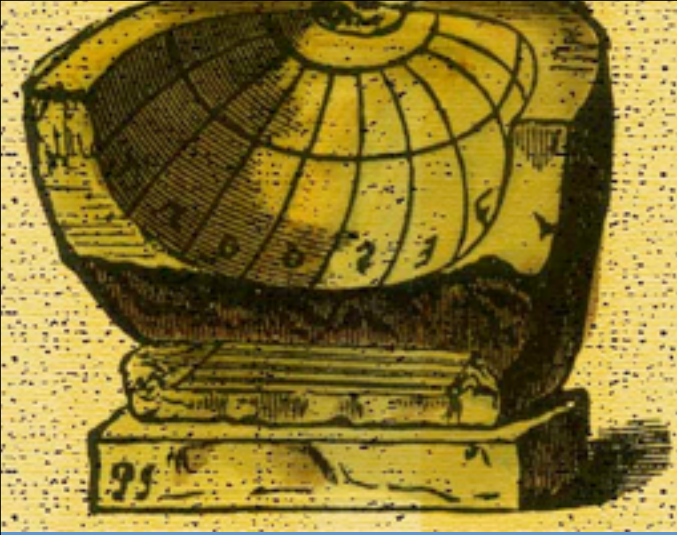
c. 3100 bce



Whan that **Aprill** with his shoures soote
 The droghte of **March** hath **Perced** to the roote,
 And bathed every **veyne** in swich **licour**
 Of which **vertu engendred** is the **flour**;
 Whan Zephirus eek with his sweete breeth
Inspired hath in every holt and heeth
 The **tendre** croppes, and the yonge sonne
 Hath in the ram his halve **cours** yronne,
 And smale foweles maken **melodye**,
 That slepen al the nyght with open ye
 (so priketh hem **nature** in hir **corages**);
 Thanne longen folk to goon on **pilgrimages**...



antikythera c 200 bce



clock time

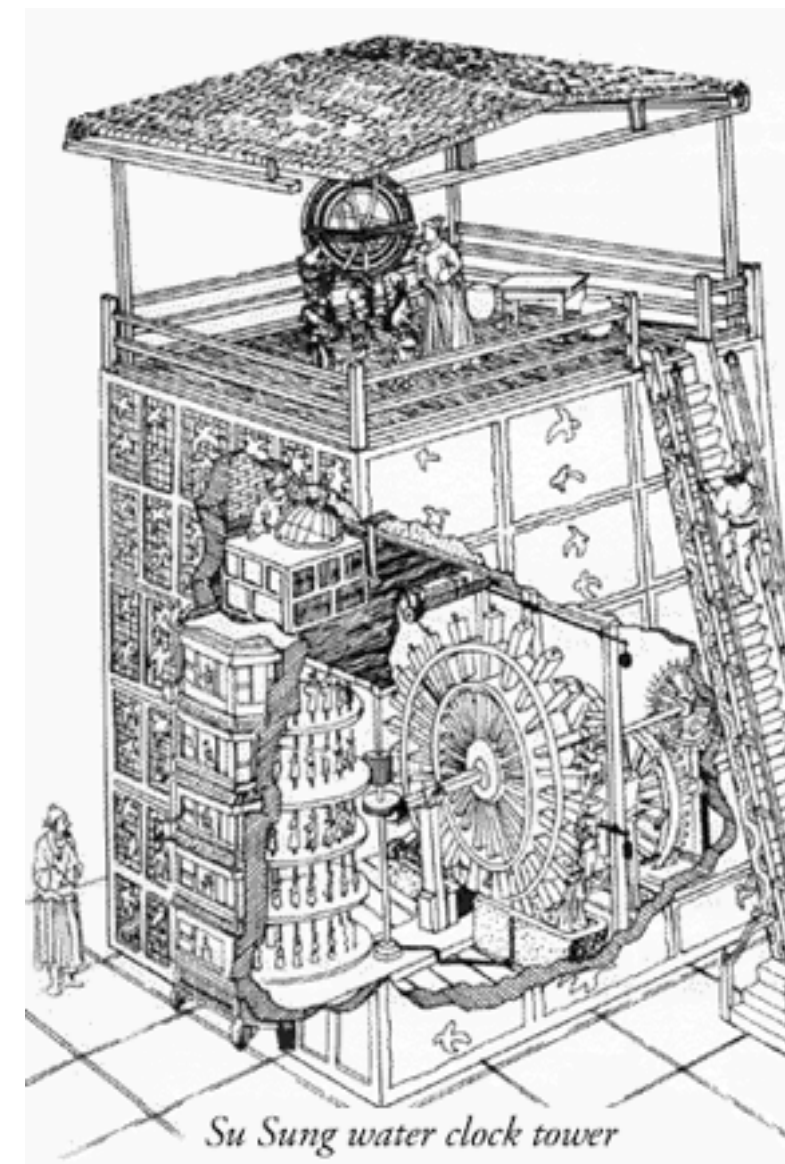
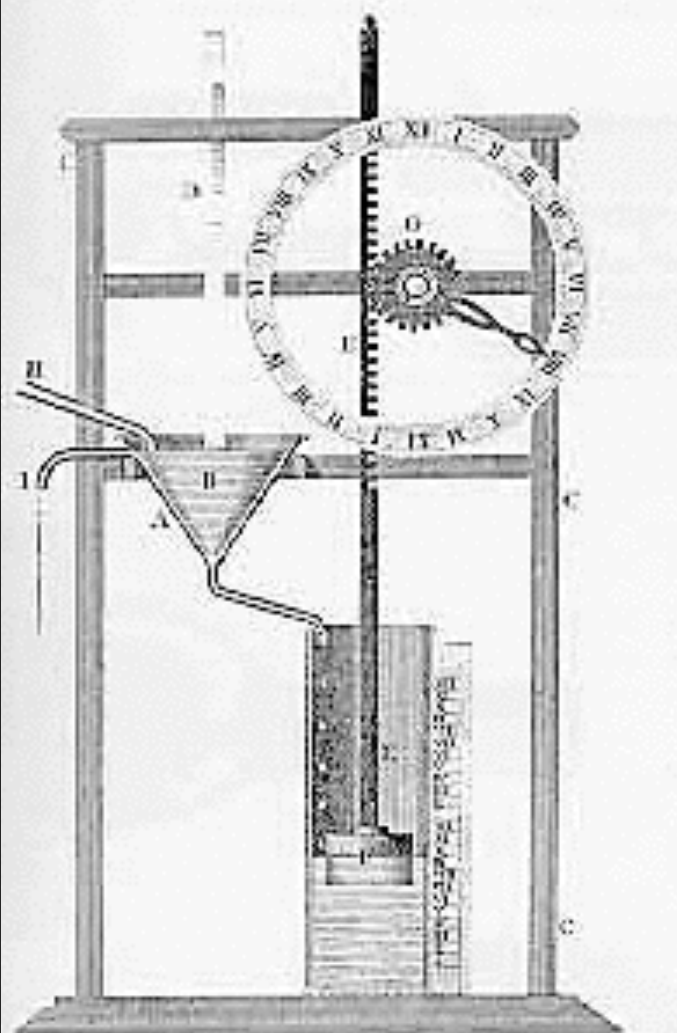


3500 bce: sundials

1400 bce: Egyptian water clocks

700 ce: hourglasses

1086: Su Sung's water tower



"Wel sikerer was his crowyng in his logge
Than is a klokke, or an abbey orlogge"

higher tech

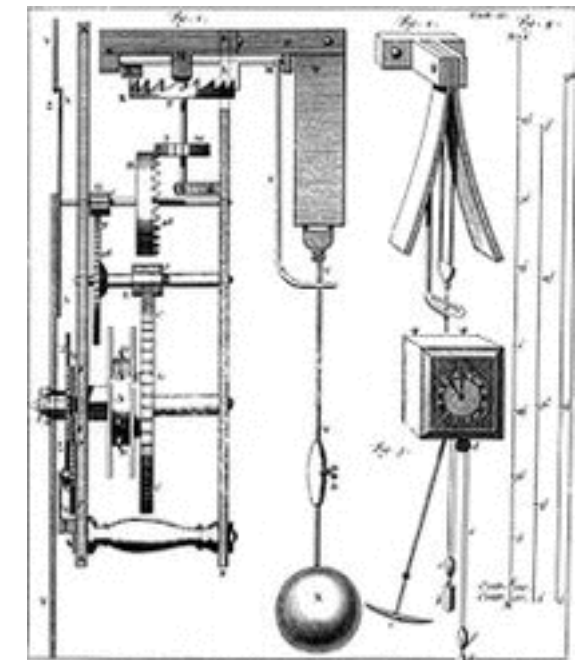
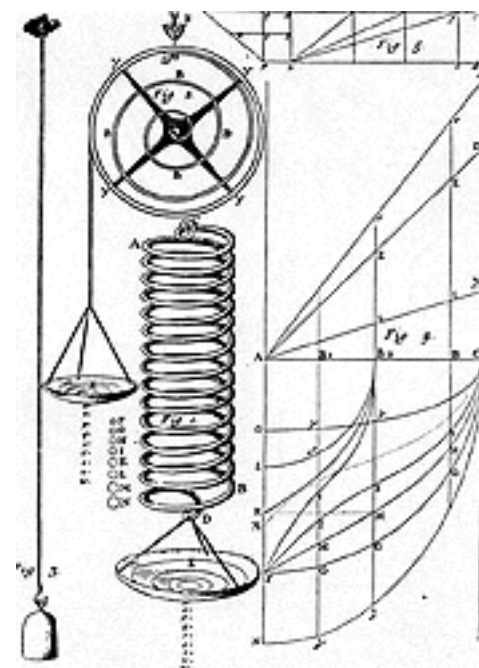


Richard of
Wallingford
1292-1336

1300: mechanical clocks
Richard of Wallingford

1656: Huygens pendulum clock

1660: Hooke & the spring watch



looking ahead

automata

86

The Antiquity Chap. VI. | Chap. VI. of Clock-work.

87

modum dentata, quæ una motione coacta, versando faciunt effectus, varietatesque motionum: in quibus moventur Sigilla, vertuntur Metæ, calculi aut Tona projiciuntur, Clocks, and some other **Automata**, might have their beginning there; or that Clock-work (which had long been buried in oblivion) might be revived there. But

computus

84 Scaligeri Poetices in 2 Vol. interfol.

85 **Cluverii computus chronologicus,** interfol.

feedback mechanisms

"feedback control dates at least from the waterclock of Ktesibios of Alexandria [3d C BC] no new feedback system [until the] thermostatic furnace."

—Beniger, *Control through Communication*

Mechanick Dyalling:

TEACHING

Any Man, though of an Ordinary Capacity and unlearned in the Mathematicks, to draw a True

SUN-DIAL

On any

Given Plane,

However scituated: Only with the help of a straight *RULER* and a pair of *COMPASSES*; And without any Arithmetical Calculation.

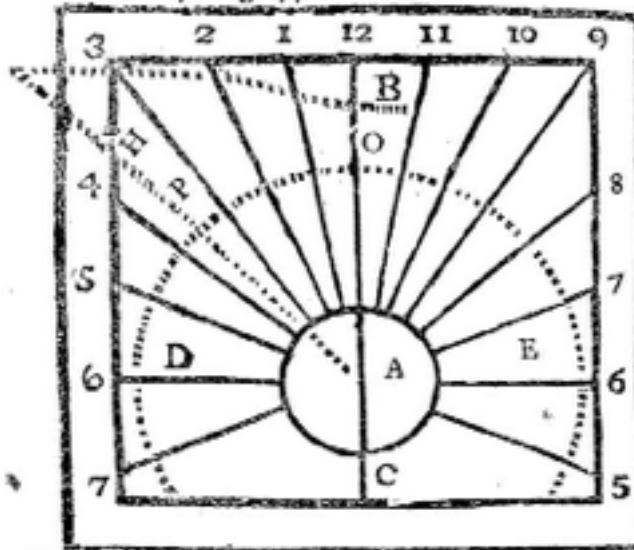
By Joseph Moxon, *Hydrographer to the Kings most Excellent Majesty.*

LONDON.

Printed for Joseph Moxon on Ludgate-hill, at the Sign of Atlas. MDC LKXVIII

244 *The Young Man's Best Companion.*

But to proceed to Dialling, the following Figure represents an Horizontal Dial, described for the Latitude of New-York, at 41 deg. 44m. North.



First, Draw the Meridian or 12 o'Clock Line *BAC* and cross the same with the Line *DE*, at right Angles in the Point *A*, which must be the Center of your Dial, and the Line *DE*, is the 6 o'Clock Line; then take with your Compasses 60 Degrees from a Line of Chords, and with that Extent, setting one Foot in the Center at *A*, with the other describe the Circle *DOE*, which done, take from the same Line of Chords, all the Hour Arches in the following Table; and placing one Foot of your Compasses in *O*, (where the Circle crosses the Meridian) with the other set off the Hour Arches both Ways upon the Circle *DOE*. Latitude 41 Degrees 44m. North.

Hours.		Hour. Arches D. M.
Fore-noon.	After-noon.	
11	1	9 46
10	2	20 22
9	3	32 44
8	4	48 4
7	5	67 22

computus

1668: Joseph Moxon,
Mechanick Dyalling

1748: George Fisher,
American Instructor

"the Art of
Dialling, and
how to erect and
fix any *Dial*"



limits of the log

why

time, space, and naval supremacy

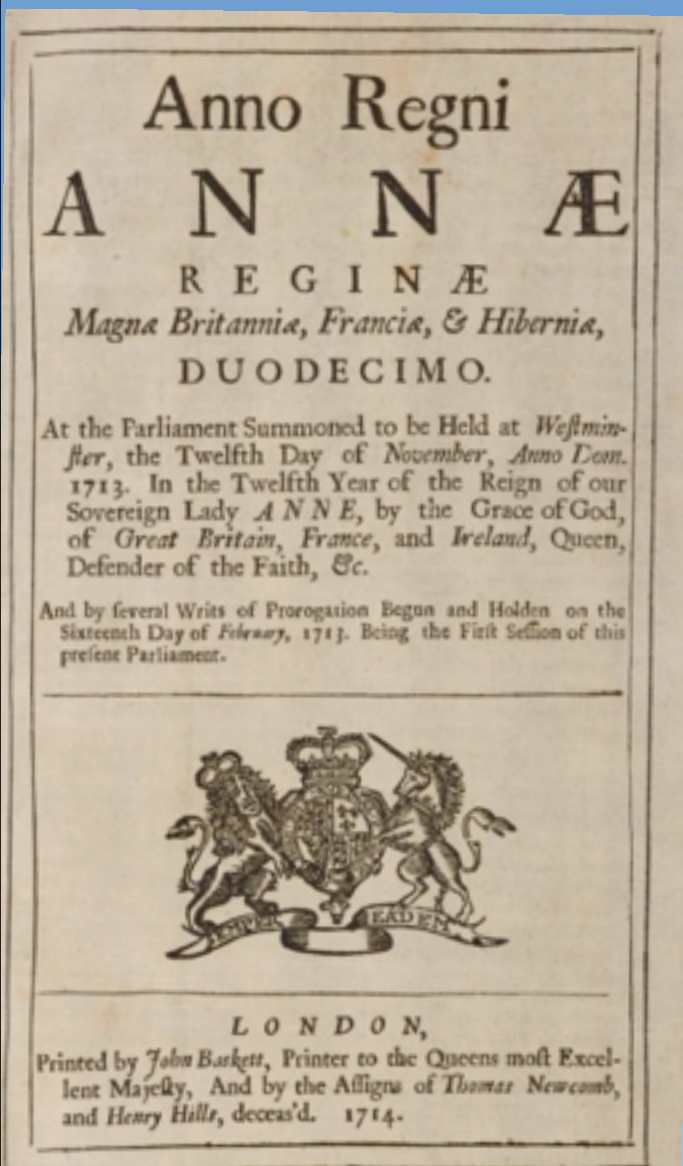
starvation, piracy, wrecks

1707: Sir Cloudesley Shovell's fleet

1,315 sailors; one survivor

1714: Longitude Act

£20,000 - to fix longitude to half a degree





various contenders

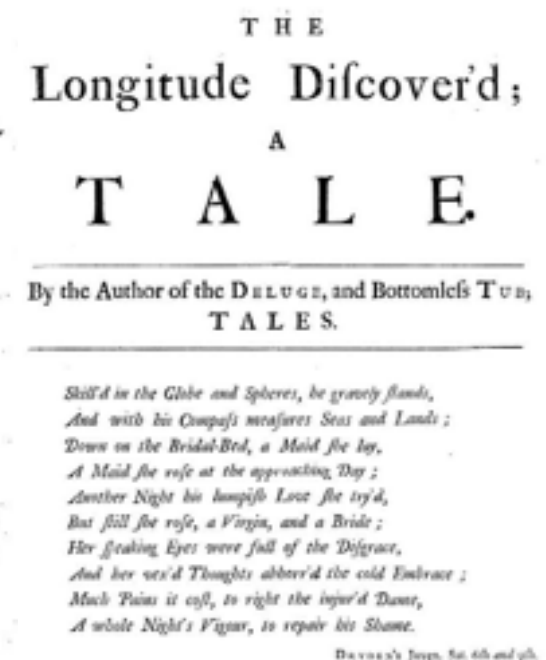
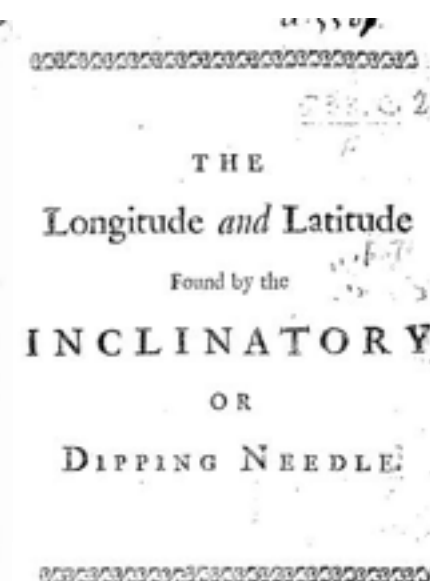
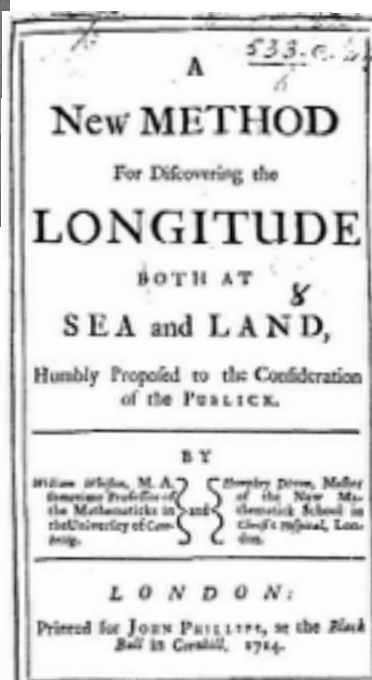
why
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time, space, and whelping dogs

Galileo, Newton, Huygens, Halley and the heavens

Wren's observatory

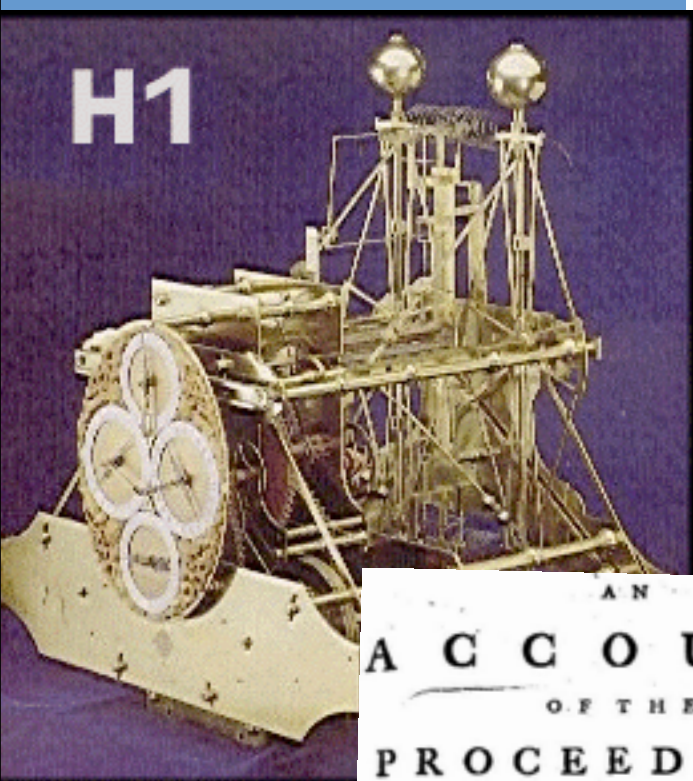
vs nutters galore





John Harrison
1693–1776

RS plays defense



Harrison vs Men of Science

H1 - Lisbon Trial, 1736

awarded prize, 1773

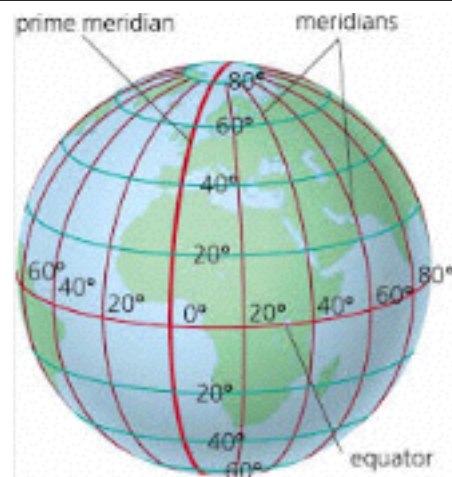
AN
ACCOUNT
OF THE
PROCEEDINGS,
IN ORDER TO THE
DISCOVERY
OF THE
LONGITUDE:
IN A
LETTER
TO THE
RIGHT HONOURABLE *****,
MEMBER OF PARLIAMENT.
L O N D O N:
Printed by T. and J. W. PASHAM, in Black-Prints, and Sold by
the BOOKSELLERS, in London and Westminster. M.DCC.LXIII.

A
NARRATIVE
OF THE
PROCEEDINGS
RELATIVE TO
The DISCOVERY of
THE
Longitude at Sea ;
BY
Mr. JOHN HARRISON's
TIME-KEEPER,
Subsequent to those published in the Year
1763.
L O N D O N:
Printed for the AUTHOR, and Sold by
Mr. SANDEY, in Fleet-Street.
MDCCLXV.

THE
PRINCIPLES
OF
MR. HARRISON'S TIME-KEEPER,
WITH
PLATES OF THE SAME.
PUBLISHED BY ORDER OF
THE COMMISSIONERS OF LONGITUDE
L O N D O N:
PRINTED BY W. RICHARDSON AND S. CLARK;
AND SOLD BY
JOHN NOURSE, AND MESS. MOUNT AND PAGE.
M DCC LXVIL

REMARKS
ON A
PAMPHLET
Lastly published by the
Rev. Mr. MASKELYNE,
Under the AUTHORITY of the
BOARD OF LONGITUDE.
By JOHN HARRISON.
L O N D O N:
Printed for W. SANDEY in Fleetstreet.
MDCCLXVII.
(PRICE SIXPENCE.)

A
DESCRIPTION
CONCERNING
SUCH MECHANISM
AS WILL AFFORD A TRUE, OR TRUE
MENSURATION OF TIME;
TOGETHER WITH
SOME ACCOUNT
OF THE
ATTEMPTS for the DISCOVERY
OF THE
LONGITUDE BY THE MOON:
AS ALSO
AN ACCOUNT
OF THE
DISCOVERY
OF THE
SCALE OF MUSICK.
By JOHN HARRISON,
INVENTOR of the TIME-KEEPER for the LONGITUDE
at Sea.
L O N D O N:
Printed for the AUTHOR, and sold by T. JONES,
No. 138, FETTER-LANE.
MDCCLXV.



going global

c1850: telegraph time

1852: Greenwich mean time

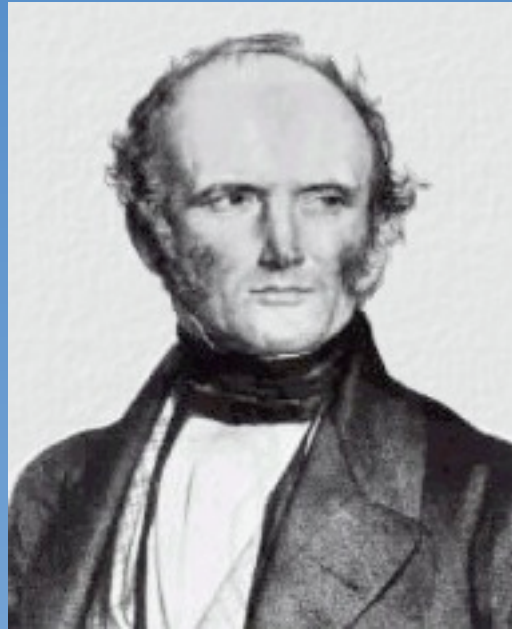
1883: US standard time

1884: Meridian Conference, DC

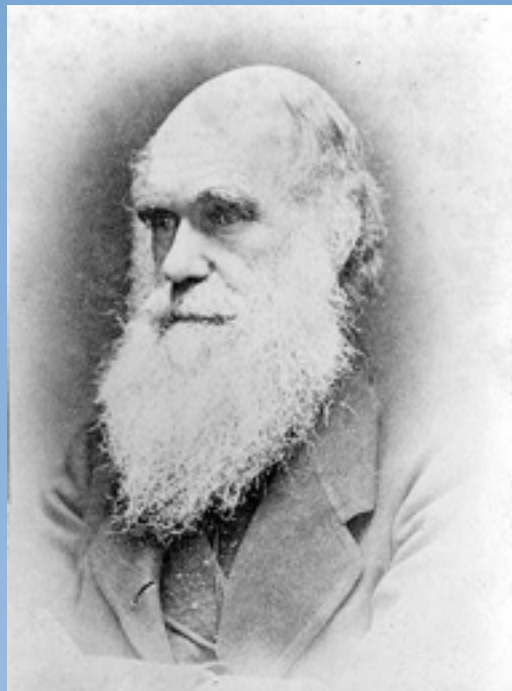
1911: France: Cassini Meridian

1966: Uniform Time Act





Charles Lyell
1797-1875

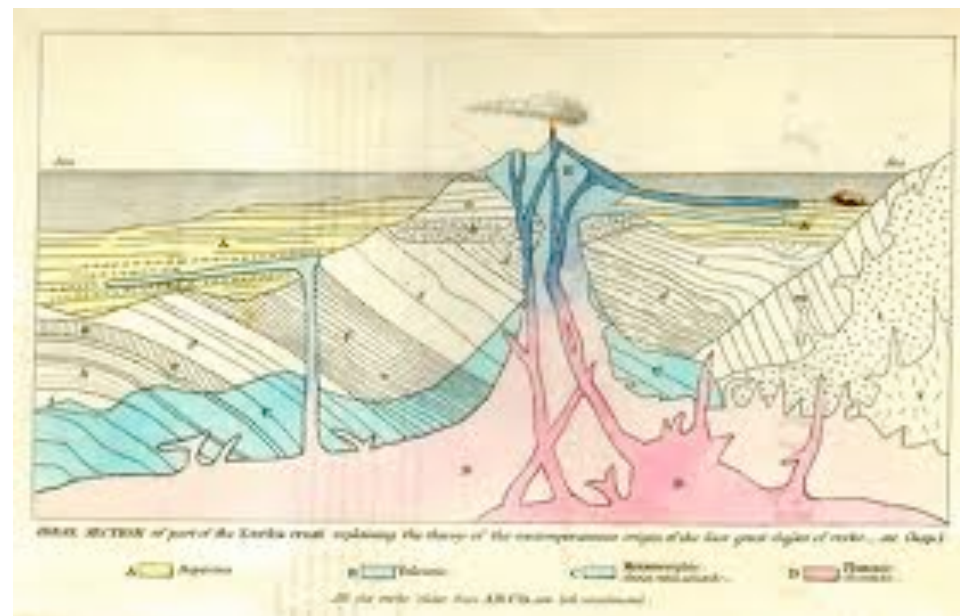


Charles Darwin
1809-1882

deep time

geological time

Lyell: "time, time, time"



Darwin: "I really think my books come half
out of Lyell's brain."

4712 - Chinese

New Year: Jan 31 (horse)

1392 - Persian

New Year: March 20 (04:03:13 am)

5774 - Jewish

New Year: September 25

1435 - Islamic

New Year: October 24

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bell tolling

1335: Amiens start of work, lunch, end of the day controlled by bell rung by the city

—decree of Phillip VI

1664: "that as many as might live within the sound might be thereby induced to a timely going to rest in the evening, and early arising in the morning to the labours and duties of their several callings"

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fields to factories work patterns

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"The work pattern was one of alternate bouts of intense labour and idleness, wherever men were in control of their working lives. (The pattern persists among some self-employed, and perhaps also among students.)

"the industrial revolution demanded a greater synchronization of labour"

--Thompson



Laurence Sterne
1713–1768

THE
Clockmakers Outcry
AGAINST THE
AUTHOR
OF
The LIFE and OPINIONS of
TRISTRAM SHANDY.
Dedicated to the
Most Humble of Christian Prelates.
Tu es Sacerdos secundum ordinem Melchisedech?
Art thou a Priest according to the Order of MEL-
CHISEDECH?

invasive clocks

Pray dear, quoth my mother, have you not forgot to wind up the clock? Good G--! cried my father...Did ever woman, since the creation of the world, interrupt a man with such a silly question?

–Laurence Sterne, *Tristram Shandy*, 1759

"No modest lady dares to mention a word about winding up a clock ...Nay, the common expression of street-walkers is, "Sir, will you have your clock wound up"

–*The Clockmaker's Outcry against the Author*, 1760

factory discipline

Wedgwood's Etruria "clocking in"; tell-tale clocks

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battles ahead fields to factories

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Coming up
ip

"a vigorous and licensed popular culture had evolved, which the propagandists of discipline regarded with dismay"

"fight, not against time, but about it"

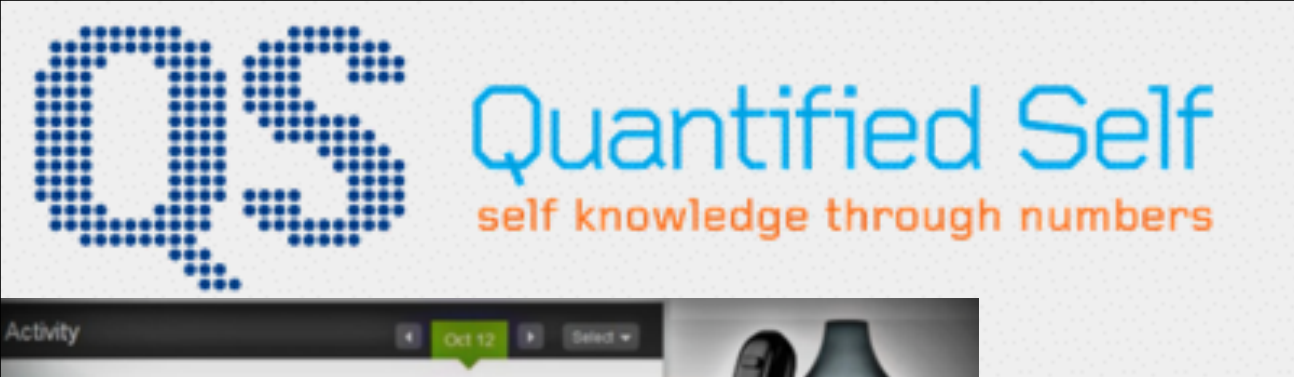


time

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"Machines were the Pemberton force .. Machines for opening letters and sealing them, automatic typewriters, dictation phonographs, pneumatic chutes. But none of the other machines was so tyrannical as the time-clock ... She knew that the machines were supposed to save work. But she was aware that the girls worked just as hard and long and hopelessly after their introduction as before."

—Sinclair Lewis, *The Job*, 1917



“My pulse, as yours,
doth temperately keep time” —*Hamlet*

running on time

the quantified self



The Economist World politics Business & finance Economics Science & technology Culture

Technology Quarterly: Q1 2012

the quantified self

Counting every moment

Technology and health: Measuring your everyday activities can help improve your quality of life, according to aficionados of “self-tracking”

March 3rd 2012 | From the print edition

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THE idea of measuring things to chart progress towards a goal is commonplace in large organisations. Governments tot up trade figures, hospital waiting times and exam results; companies measure their turnover, profits and inventory. But the use of metrics by individuals is rather less widespread, with the notable exceptions of people who are trying to lose weight or improve their fitness. Most people do not routinely record their moods, sleeping patterns or activity levels, track how much alcohol or caffeine they drink or chart how



"The Nonequivalence of High School Equivalents"

Stephen V. Cameron
& James J. Heckman
1991

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schools "a spectacle of order and regularity ...
they are become more tractable" --Thompson

time, money, & education

"They who have the art
To manage books, and things, and make them work
Gently on infant minds as does the sun
Upon the flower - the tutors of our youth,
The Guides, the Wardens of our faculties,
And Stewards of our labour, watchful men
And skilful in the usury of time,
Sages, who in their prescience would controul
All accidents, and to the very road
Which they have fashion'd would confine us down,
Like engines."

—William Wordsworth, *Prelude*, 1850

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reading response

Fisherites: — 34%

Gabriel Freeman

Elise Tam Cooc

Neither/both — 17%

George Mulcaire

Ciara Crowley

Thompsonites — 49%

Helen Oliver

Vandana Pai

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"I wasted time, and now doth time waste me;
For now hath time made me his numbering clock:
My thoughts are minutes; and with sights they jar
Their watches unto mine eyes"

— *Richard II*

Gabriel

As with most things, the technology of time is a double-edged sword. This is a tool, and when used by one who understands it can be used for his/her own gain at another's expense. When used properly by a society, great things can come of it, just as Thompson admits himself: "Their great co-operative societies would never have arisen to such immense and fruitful development but for the calculating induced by the use of machinery" (75, Thompson). However, when one class of people understand the technology and another does not, corruption and manipulation soon follow—whether with children: "'there is considerable use in their [children] being, somehow or other, constantly employed at least twelve hours a day, whether they earn a living or not; for by these means, we hope that the rising generation will be so habituated to constant employment that it would at length prove agreeable and entertaining to them . . .'" (84, Thompson) or with laborers: "'in reality there were no regular hours (...) instead of being instruments for the measurement of time, they were used as cloaks for cheaterly and oppression'" (86, Thompson). **Any man that uses these tools correctly may lead to his own success, such as in Fisher's example by proving his reliability with debts. Those who understand and implement properly hold power over those who do not.**

"I wasted time, and now doth time waste me;
For now hath time made me his numbering clock:
My thoughts are minutes; and with sights they jar
Their watches unto mine eyes"

— *Richard II*

Elise

Thompson wrote, "One recurrent form of revolt within Western industrial capitalism, whether bohemian or beatnik, has often taken the form of flouting the urgency of respectable time-values" (Thompson, 95). The word "flouting" makes it seem like people had a choice and decided against taking time seriously. As Fisher said, "Waste neither time nor money, but make the best use of both" (Fisher, 377). It is up to the person to decide what they want to do with their time, and ultimately they control their time, not the other way around. Today's society is different from past societies, and people's dealings with time are inevitably different. Modern society is concerned with convenience, which leads to more "free time" that sometimes people don't know how to use. **If people only learned self-discipline over time as Fisher suggested, then they can have greater control over their lives than time does. They just simply have to learn self-control.**

George

Thompson's argument takes a wider perspective and reveals the effects of time-discipline on the employees themselves: taking them from a self-directed system of task-oriented labor into a system rigidly controlled by their employers. It is true that workers' acceptance of time technology enabled them to "fight, not against time, but about it" and win the right to regular, limited working hours (85-86). However, with this right came the idea that workers' time was not their own but belonged to their employers (61). ... The implications for modern society are not clear. It may be that the rise of self-employed workers with internet businesses will let more people become like Fisher's tradesman, becoming rich (and thus more in charge of their destinies) with the aid of time-discipline. But self-employment could also allow the relaxation of time-discipline and the return of task-oriented perception of time. **Time will tell.**

When Thompson speaks of employers' necessity to measure their employees' work by the time worked rather than by the completion of tasks, he states, "not the task but the value of time reduced to money is dominant" (61). Fisher begins his "Advice to a Young Tradesman," however, by stating, "Remember that Time is Money" (375). By inciting his reader to *recall* (continuing in this strain throughout the article), Fisher seems to have accepted the condition of which Thompson speaks and—as the genre of his work is not an essay like Thompson's but rather an instructional book—proposes the ways in which a person should act to retain his wealth in light of this condition. We continue today to organize much of our lives according to the "time-discipline" both Thompson and Fisher recognize (Thompson 90). I find interesting Thompson's notion that the strict "Puritan valuation of time" might "begin to decompose as the pressures of poverty relax," for it implies that **our adherence to structured time may not increase linearly and indefinitely, but rather may fall into patterns according to a society's needs** (95).

Vandana

Modern perception of time is a function of the growth of industrialism. Labor was previously “task-oriented,” more leisurely and at a gradual, less demanding pace (Thompson, 60). However, especially during the 17 century, there was a rapid change from the perception of time passed, to time spent (Thompson, 61). Fisher, writing from this era, agrees that “time is money,” demonstrating Thompson’s point how time became internalized by people and pervasive in society (Fisher, 375). Thompson attributes this to the rising need for “synchronization of labor” in factories, which in turn placed greater value on discipline and organization (70). Even today, time dictates our weekly schedules and daily tasks. Employers must use their time efficiently and more importantly, spend it wisely. Thompson makes note that time ultimately “[impinged] upon social and domestic life,” eventually even becoming “habituated” in schools (83–84). This is obvious today with the “clear demarcation between work and life”—a distinction that hardly existed prior to Industrialization (Thompson, 93). **Our relationship with time today goes unnoticed because we have become conditioned to observe it in all aspects of our lives.**

Helen

Thompson presents a deep analysis of the complicated relationship of people and time. He argues that technology, in driving growth and change of a culture, also changes how people's lives are structured. Technological development leads to "radical restructuring of mans social nature and working habits" [91] such as the dramatic changes of Industrial Revolution. ... Fisher's argument addresses the same technologies and developments, but presents them as a tool for readers to control their lives. By treating technological changes as external, Fisher attempts to abstract sociological problems from economic concepts, a folly Thompson warns against. Claiming that "the way to wealth... is as plain as the way to market" and dependent on "industry and frugality" [377] is an over-simplification. **Fisher presents advice for conforming to disciplined industrial capitalism, and fails to address the complex sociological stresses of transition.**

noteworthy?

Fisherites: — 34% 15%

Neither/both — 17% 30%

Thompsonites — 49% 80%

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accounting



Sumerian tablets

record keeping

the code of Hammurabi

"if a man has given on deposit without elders
or contract ...[if] they contest it, there
shall be no claim"

--Hammurabi, Babylon c 1700 bce



Rome

adversaria, codex accepti et dispensi, liber rationum



the Italian method

"The inventor of Accounting ..."

1494: Luca Pacioli *Summa de Arithmetica*
[cp Gutenberg et al ...]

more reliable history

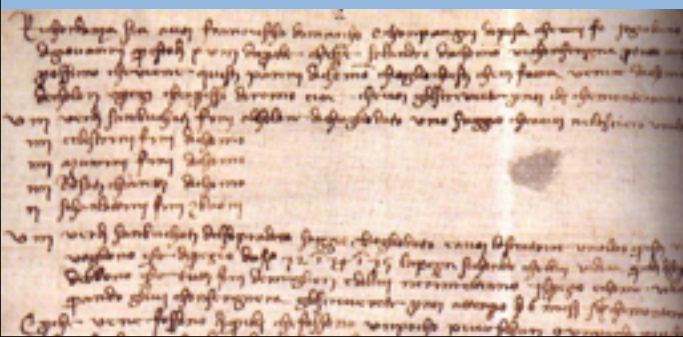
1211: proto double entry, Florence
"Arabic" numerals, via al-Khwarizmi

c 1340: double entry in Genoa

1366: The Merchant of Prato
(Francesco di Marco Datini)



Luca Pacioli
c 1445– 1517





Maurice of Nassau
1567–1625

a popular literacy?

from princes and courts

Prince Maurice of Nassau

Colbert, "Information master" for Louis XIV

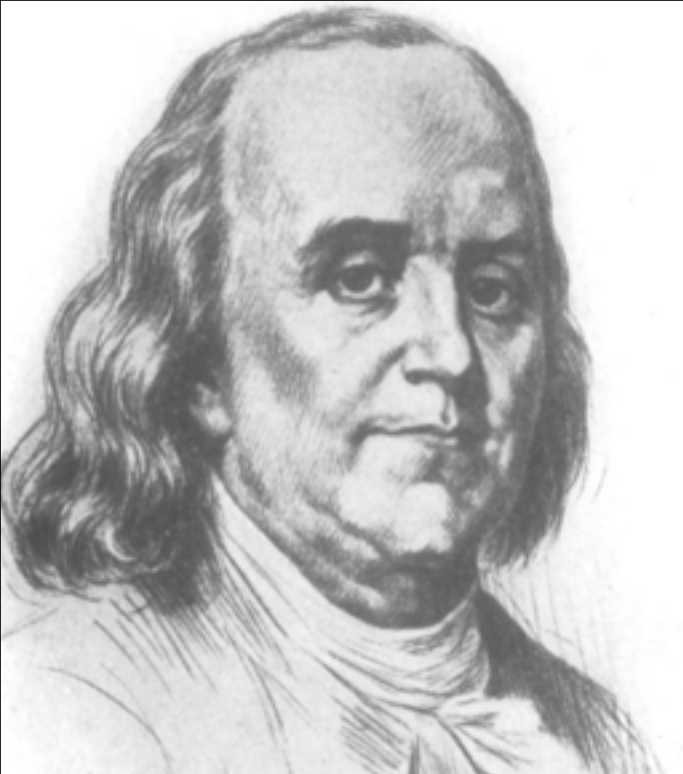
to plebians and the gallows

—Peter Linbaugh, *The London Hanged*, 1993

Anna Karenina vs *War & Peace*



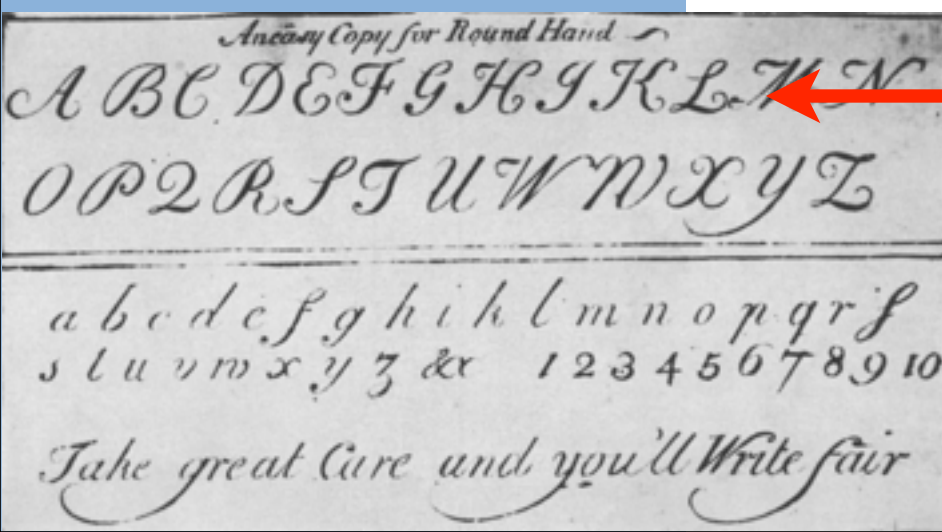
Jean-Baptiste Colbert
1619–1683



Old Tradesman
1706-1790

popular item

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James O. R. Fisher
INSTRUCTOR:
James O. R. Fisher
Young Man's Best Companion.
CONTAINING,
Spelling, Reading, Writing, and Arithmetick,
in an easier Way than any yet published; and how to qua-
lify any Person for Business, without the Help of a Master.
Instructions to write Variety of Hands, with Copies
both in Prose and Verse. How to write Letters on Bu-
siness or Friendship. Forms of Indentures, Bonds, Bills
of Receipts, Wills, Leases, Releases, &c.
Also Merchants Accompts, and a short and easy Me-
thod of Shop and Book-keeping; with a Description of the several
American Colonies.
Together with the Carpenter's Plain and Exact Rule: Shew-
ing how to measure Carpenters, Joiners, Sawyers, Bricklayers, Pla-
sterers, Plumbers, Masons, Glasiers, and Painters Work. How
undertake each Work, and at what Price; the Rates of each Com-
modity, and the common Wages of Journeymen; with Gunter's Line,
and Coggeshal's Description of the Sliding-Rule.
Likewise the PRACTICAL GAUGER made Easy; the Art
of Dialling, and how to erect and fix any Dial; with Instructions for
Dying, Colouring, and making Colours.
To which is added,
The POOR PLANTERS PHYSICIAN.
With Instructions for Marking on Linnen; how to Pickle
and Preserve; to make divers Sorts of Wine; and many excellent
Plaisters, and Medicines, necessary in all Families.
And also
Prudent Advice to young Tradesmen and Dealers.
The whole better adapted to these American Colonies, than
any other Book of the like Kind.
By **GEORGE FISHER**, Accomptant.
The Ninth Edition Revised and Corrected.
PHILADELPHIA: Printed by B. FRANKLIN and
D. HALL, at the New-Printing-Office, in Market-Street.

THE
Young Man's
COMPANION,
 Or a very useful Manual for
Y O U T H.
 CONTAINING

Plain and full Directions for Spelling, and Reading English and Latine, and the Englishing the Latin Bible without a Teacher; with easie Rules for Writing and Arithmerick. Likewise the Plotting, and Measuring of Land, Globes, Steeples, Walls, Barrells, Timber, Stone, Boards, Glass, &c. of Surveying, Astronomie, Dialing, and Glazing; also some secrets in Navigation, Geography, and Colouring of Globes; with a Map of England; and a Brief History of the Kingdom thereof; Remarques on the late Great Frost, and other Prodigious Accidents. All foreign Coin reduced to English Money, with the Commodities of several Countries: Of the Weather, Astrology, Palmistry and Geometry: Receipts in Physick and Chyrurgery, of Husbandry and Ordering of Bees: Of Weights, Numbers, Purchase of Annuities, Leases, &c. Account of Time, Days and Months, under their various denominations: Hard Words in Law and Chyrurgery explained. With all the Fairs, Highways and Roads in England, and, many more useful things; together with an Alphabetical Table for the ready finding any Matter herein contained.

The Second Edition, with very large Additions.

By William Mather.

LONDON, Printed for Thomas Hawkins, in George-Yard in Lombard-Street. 1685.

In the British Edition of this Book, there were many Things of little or no Use in these Parts of the World: In this Edition those Things are omitted, and in their Room many other Matters inserted, more immediately useful to us Americana. And many Errors in the Arithmetical Part are here carefully corrected.

VALE & FRUERE.

eternal truths?

successive adaptation

William Mather, *Young Man's Companion*
 (24 editions by 1775)

George Fisher *The Instructor*, 7 editions to 1744
 (or Mrs Slack?)

The American Instructor, 9th edition, 1748
 (16 editions by 1800)

"Not only published by Franklin and Hall,
 but ... largely rewritten by Franklin."

—Linglebach, "Franklin's American Instructor" 1952

enduring advice

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Advice to a young Tradesman, written by an old One.

To my Friend A. B.

As you have desired it of me, I write the following Hints, which have been of Service to me, and may, if observed, be so to you.

REMEMBER that TIME is Money. He that can earn Ten Shillings a Day by his Labour, and goes abroad, or sits idle one Half of that Day, tho' he spends but Six-pence during his Diversion or Idleness, ought not to reckon that the only Expence; he has really spent, or rather thrown away Five Shillings besides.

Beware of thinking all your own that you possess, and of living accordingly. 'Tis a Mistake that many People who have Credit fall into. To prevent this, keep an exact Account for some Time of both your Expences and your Incomes. If you take the Pains at first to mention Particulars, it will have this good Effect: you will discover how wonderfully small trifling Expences mount up to large Sums, and will discern what might have been, and may for the future be saved, without occasioning any great Inconvenience.

"spelling
reading
writing
arithmetic
... how to
qualify any
person for
business ...
write letters
...
Merchants
Accompts ...
the several
American
Colonies"

the next thing

"The next Qualification to fit a Man for Business, after Arithmetick, is the Art of Book-Keeping or Merchants Accompts, after the Italian Manner, by Way of Double Entry."

Waste-Book (Memorial)

Journal

Leidger

waste-book

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"In this Book must be daily written whatever occurs in the way of Trade; as Buying, Selling, Receiving, Delivering, Bargaining, Shipping, &c. without Omission."

Waste-Book Entry.

London, January 1, 1758.

Bought of *William Wilkins*, of *Norton-Falgate*, 120 Yards of white Sarcenet, at 2s. 3d. per Yard, to pay in two Months. — — — — —

<i>l.</i>	<i>s.</i>	<i>d.</i>
13	10	—

journal

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"Into this Book every Thing is posted out of the Waste-Book, but in other Terms, in a better Stile, and in a fairer Hand, without any Alteration of Cyphers or Figures; and every Parcel, one after another, promiscuously set without Intermission, to make the Book, or several Entirees of it, of more Credit and Validity, in case of any Law Dispute, or any other Controversy."

ledger

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From the Journal or Day-Book ... all Matters of Things are posted to the Ledger, which by the Spaniards are called El Libro Grande.

... The Left-hand Side of this book is the Debtor, and the Right the Creditor

The short Lines ruled against the Journal Entries are ...Posting Lines, and the Figure on Top of the Lines denotes the Folio of the Leidger where the Debtor is entered.

John Schmidt Isrolehr

D

contra

1794 February 12 To Goods for 119 dozens	3	215 12
1795 May 25 To do for 116 dozens	147	190 6
1796 Sept 7 To Shiffs for 20 Bundles kites	256	64 -
Decemr 16 To do for 30 Bundles do	.	96 6
		100 6
1795 Aug 29 To Goods for 58 dozens	269	135 10 4
May 15 To Shiffs for 20 Bundles kites	275	53 8 4
1796 July 12 To do for 15 do 30 dozens of Linings	255	206 6 -
		395 4 8
1796 July 2 To Goods for 60 dozens	296	112 3 -
Sept 13 To Shiffs for 22 Bundles	298	58 4
30 To Goods for 110 dozens	299	166 15
1797 Aug 25 To Goods for 102 dozens	302	264 8 -
October 22 To W. Madden who adv. advised by him to pay them	187	18 15 8
		283 3 8

W & J Cox & Co Nottingham

1799 Decemr 31 To Goods	173	3 -
1800 Aug 21 To W. Madden for adv. on 1st do London	154	100 -
Septemr 24 To Cash	169	63 -
Decemr 31 To Abatement for direct return	164	4 13 -
		175 13 -
1801 Nov 30 To Cash paid them	223	107 11
Decemr 31 To do for 77 do do	256	9 3 6
1802 Feb 20 To Cash paid them	272	44 5
May 30 To do do	.	12 14 -
August 31 To do do	.	33 7
October 31 To do do	.	36 16
Decemr 31 To do do	.	27 5
		271 6 6
1803 Aug 31 To Cash paid them	272	46 10 -
Septemr 30 To do do	.	144 7 -
Decemr 31 To do do	.	22 5
To Abatement for Direct return	247	17 14 10
		230 16 10
1807 May 31 To Cash paid them	272	80 6 -
July 31 To do do	.	140 11
To London & offm. Ingh & London	2414	78 13 -
Aug 30 To Cash paid them	272	13 11
Decemr 31 To do do	.	103 9 4
To Abatement for Direct return	307	48 18 5
		466 8 9

1804 October 15 By Sundries for 21 Bills on London & due £12.0	754	215 12 -
1805 Jan 14 By J. & W. Wright for adv. Harman to London and by from Baltimore	157	135 -
1806 Decemr 31 By Abatement for return & direct return (see above)	164	5 6 -
		190 6 -
1807 Nov 30 By Cash of Reid Ingh & London & 30 night	223	60 3 3
Decemr 31 By Abatement for 8 do do	143	3 16 9
1808 March 31 By Sundries & offm. John Mayer London for 10 do & 6 do due £5.16 7 7 1/2	247	96 6
		100 6
1809 Aug 31 By Cash & offm. Harman & London	272	150 -
Decemr 30 By do do do	.	26 12 -
To Abatement for 8 do do	276	11 6 7
1810 May 31 By Sundries & offm. London for 14 do & 6 do due £12.2	244	207 6
		305 4 8
1811 October 14 By Sundries & offm. R. A. Godefricht & Co & 6 do due £4.5 11 3 1/2	1134	712 3 -
1812 March 31 By Sundries & offm. C. P. Morgan London & 6 do due £13.10 11 3 1/2	1134	213 10
April 30 By Cash & offm. Harman & Co do	224	14 0 7 1/2
		272 11 9 -
1817 Oct 22 By Sundries & 21 Bills on London & 6 do due £15.17 -	234	283 3 8

CONTRA

1801 Decemr 31 By Shiffs for 394 11 Silks bought this year	181	120 7 5
1802 Decemr 31 By Sundries 124 10 do & 7 1/2 do Silks bought	1125	46 5 7
		175 13
1804 Decemr 31 By Shiffs for 58 do Silks	256	164 12 6
1805 Decemr 30 By do for 434 12 do	265	106 9
		271 6 6
1806 Decemr 31 By Shiffs for 104 11 9 Silks bought	243	230 16 10
1807 Decemr 31 By Shiffs for 192 do Silks bought	305	466 8 9



5/23/06	WITHD	Good Earth Groceries	27.36	Deposit	1,669.04
		Groceries	4456 PURCHASE	Open Split	
5/23/06	EFT	Sun State Credit Cards	250.00		1,419.04
		(Sun State)			
5/24/06	1209	Water Company	32.15		1,386.89
		Utilities:Water			
5/27/06	EFT	Phone Company	47.62		1,339.27
		Utilities:Telephone			

still going

the books & the bottom line



Welcome to GnuCash.org

GnuCash is personal and small-business financial-accounting software, freely licensed under the **GNU** GPL and available for GNU/Linux, BSD, Solaris, Mac OS X and Microsoft Windows.

Designed to be easy to use, yet powerful and flexible, **GnuCash** allows you to track bank accounts, stocks, income and expenses. As quick and intuitive to use as a checkbook register, it is based on professional accounting principles to ensure balanced books and accurate reports.

Download GnuCash 2.4.10



Linux Source | Via distribution



Microsoft Windows XP/Vista/7



Mac OS X Intel | Power PC | Readme

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THE KINGSCLORE RACING STABLES LIMITED													
BALANCE SHEET November 30th 1905.													
Liabilities					Assets								
Share Capital:-													
162 Ordinary Shares of £100 each	16200	0	0			Property at Kingsclere at purchase price				£	s	d	
50/- Do. (allotted as fully paid up on account of purchase of property	5400	0	0			Alterations of Stalls (being amount paid to Messrs C. Garrett & Sons)				21000	0	0	
12 Deferred Shares of £1 each.	12	0	0	21612	0	0	Cash at Bank	2227	9	4	590	2	0
Loans:-						Less amount due to Secretary.		4	16	0	2222	13	4
The Duke of Westminster.	1075	0	0			Preliminary expenses being costs of registration, Conveyance, Lease, &c.		876	0	1			
Do. Do. Portland	1075	0	0			Less 3th written off.		219	0	1	657	0	0
Frederic Gretton Esqre.	75	0	0	2300	0	0	Proportion of rent due from Mr. Porter from 31st August to 18th November 1905 less tax.						
Mr. John Porter.	75	0	0				Rates due from Mr. John Porter.	158	8	0	252	1	6
Rents &c:- Proportion to 30th November 1905							Amounts due for training charges and expenses.	93	13	6	3281	14	11
The Duke of Wellington	13	6	8				Fire Insurance premium unexpired.				19	6	4
Lord Bolton	15	16	8										
A. De Portal Kingsmill Esq.,	25	0	0										
Mr. W. J. Prior.	5	0	0	82	10	0							
Messrs. Whistler & Drake.	23	6	8										
Secretary's remuneration to 2nd December 1905.				16	13	4							
Auditor's Fee.				15	15	0							
Mr. John Porter Training charges				3081	14	11							
Nett Profit as per Profit and Loss account													
Do. to 30th November 1905.	378	4	8	228022	18	1				228022	18	1	

PROFIT and LOSS ACCOUNT for the period ending 30th NOVEMBER 1905.											
1905						1905					
Nov. 30	To travelling expenses				1	11	3	By amounts from Subscribers			
	Postages and Telegrams				1	4	7	The Duke of Portland	22300	11	1
	Printing and Stationery				2	1	7	do. Retaining fee	590	15	0
	Fire Insurance				4	9	8	do. Heath Tax	39	7	4
	Sundry Office expenses.					8	11	The Duke of Westminster	2372	17	0
	Rents to 30th November 1905							do. Retaining fee	590	15	0
	The Duke of Wellington	85	10	4				do. Heath Tax.	39	7	4
	Lord Bolton	38	8	8				Frederic Gretton Esq.	1198	8	6
	A. dePortal Kingsmill Esqre.,	160	11	8				do. Retaining fee	590	15	0
	Mr. W. J. Prior	35	0	0				do. Heath Tax	39	7	4
	Messrs. Whistler & Drake	23	6	8	342	17	4	amounts from:-			
	Secretary's Salary 2 years and 1 month to 2nd December 1905.				208	6	8	Lord Alington	206	6	6
	Accountant's charges				25	0	0	The Earl of Creve	1689	13	5
	Auditor's fees, 2 years.				31	10	0	do. Retaining Fee	200	0	0
	Amount written off Preliminary expenses.				219	0	1	Sir Frederick Johnstone	849	1	2
	Nett profit to balance sheet				378	4	8	do. Retaining Fee	200	0	0
								Mr. John Porter, Rent less Property Tax.			
									814	14	9
									211721	19	5

I have examined the Books and accounts of the Company and the above Balance Sheet is in my opinion a full and fair balance sheet containing the particulars required by the regulations of the Company and is properly drawn up so as to exhibit a true and correct view of the Company's affairs as shown by the books of the Company. I certify that all my requirements as Auditor have been complied with.

Jerry House, 27 & 28 Old Jerry,
London, E.C.
4th December, 1905.

RICHARD H. NEUBEY
Chartered Accountant.

assets = liabilities + equity

Balance in the Leidger.

The Rules for Balancing are these, *viz.*

1st, Even your Accompt of Cash, and bear the Nett R^{ce} to balance Dr.

2dly, Cast up all your Goods bought, and those sold what kind soever, in each Accompt of Goods; and see whether all Goods bought, be sold or not; and if any remain unsold, value them as they cost you, or according to the present Market Price, ready Money; and bear the Net Rest to balance Dr.

3dly, See what your Goods or Wares severally cost, and also how much they were sold for, and bear the Nett Gain or Loss to the Account of Profit and Loss.

4^{thly}, Even all your Drs. and all your Crs. in order as they lie, and bear the Nett Rest of every Dr. and Cr. to Balance.

5^{thly}, Even your Voyages, your Factors Accompt wherein is either Gain or Lofs, and bear the Nett Gain Lofs to the Accompt of Profit and Lofs, and the Goc

6thly, Even the Accompt of Profit and Loss, and bear the Nett Rest to Stock or Capital, as an Advance to your Stock or Capital.

7thly, Even your Stock, and bear the Nett Rest to balance Cr.

Then cast up the Dr. and Cr. Sides of your Balance; and if they come out both alike, then are your Accompts well kept; otherwise you must find out your Error by pricking over your Books again, to see whether you have entered every Dr. and Cr. in the Leidger as you ought.

Note, By pricking over the Book is meant, an Examining every Article of the Journal, against the Leidger, and marking it thus,—or thus †; and upon the second Examination thus †; and upon a third Examination thus ||; or any other Mark.



Bankrupt? No, say EU language police, it's 'debt adjusted', as Brussels tries to remove the stigma of going bust

- Man behind the plan said the word 'bankrupt' carries a potent stigma
- Tory MP Brooks Newmark condemned the 'flawed, madcap scheme'
- He said: 'This shows just how intellectually bankrupt - sorry debt adjusted - the European Union has become'

By GLEN OWEN

PUBLISHED: 20:06 EST, 15 February 2014 | UPDATED: 09:41 EST, 20 February 2014

"if they come out alike"

why
fighting time
technologies of time
time control
discussion
accounting
balancing

assets = liabilities + equity

Was it an error by US Fed in not saving Lehman Brothers from going bankrupt?

By New York Times | 22 Feb, 2014, 03:48PM IST

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By: Peter Eavis

Six weeks after [Lehman Brothers](#) filed for [bankruptcy](#) in September 2008, [Ben S. Bernanke](#), then chairman of the Federal Reserve, gave his central bank colleagues an imitation of the people who were already criticizing the government's decision to let the [Wall Street](#) bank collapse.

"What in the heck were you guys doing letting Lehman fail?" he said, according to



The transcripts of the 2008 Fed meetings that were published Friday provide one of the fullest pictures yet of the thinking of top government officials on Lehman's implosion.

Detroit bankruptcy plan proposes slashing pension benefits up to 34%

By Chris Isidore and Melanie Hicken @CNNMoney February 21, 2014: 3:25 PM ET

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out of
balance

REUTERS EDITION: U.S. ▾

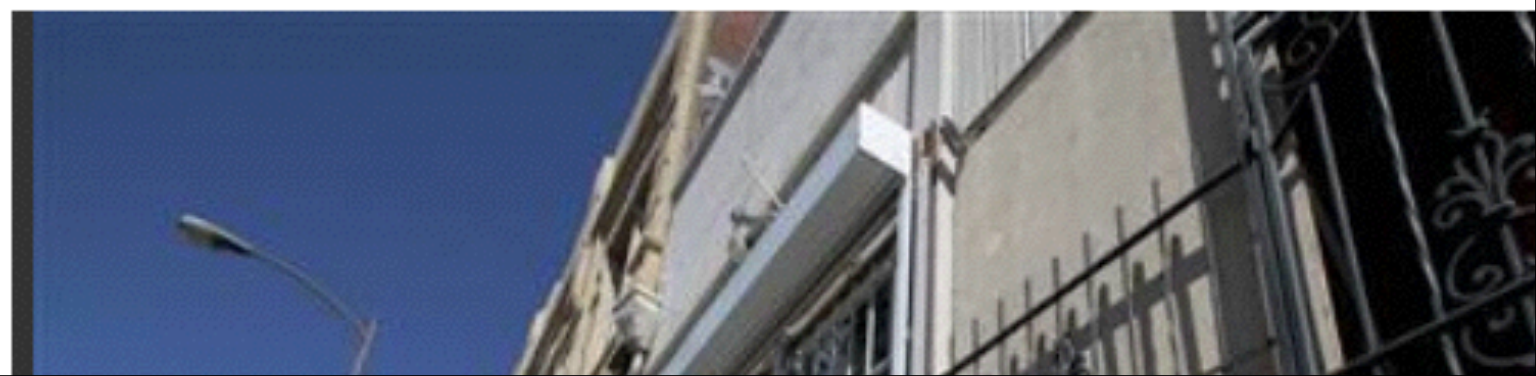
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LIVE COVERAGE: Ukraine parliament ousts

Stockton eligible for bankruptcy protection: judge

BY JONATHAN WEBER
SACRAMENTO, California | Mon Apr 1, 2013 5:53pm EDT

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Record Japan trade deficit highlights risk of economic stumble

BY TETSUSHI KAJIMOTO AND STANLEY WHITE
TOKYO/WAKAYAMA, JAPAN | Thu Feb 20, 2014 1:31am EST

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unbalanced

balancing

HOME > GLOBAL ECONOMY > TRADE > US TRADE DEFICIT IN MANUFACTURES SURGES IN FOURTH QUARTER

US Trade Deficit in Manufactures Surges in Fourth Quarter

Industry group MAPI points out there was a three-month net loss of 40,000 to 100,000 manufacturing jobs.

IW Staff

Feb. 21, 2014

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COMMENTS 0

U.S. trade deficit in manufactures surged 9% , with exports growing by only 2% for the year, to \$1.1 trillion.

After a relatively flat first three quarters in 2013, the U.S. trade deficit in manufactures surged 9% in the fourth quarter, according to an analysis from the Manufacturers Alliance for Productivity and Innovation (MAPI).

In the report, Ernest Bress, Ph.D., MAPI senior adviser for international trade and



Robert Harley
ascent to power,
1711
fall from grace
1714

balancing nations

Treaty of Utrecht, 1713

War of the Spanish Succession

the commercial treaty

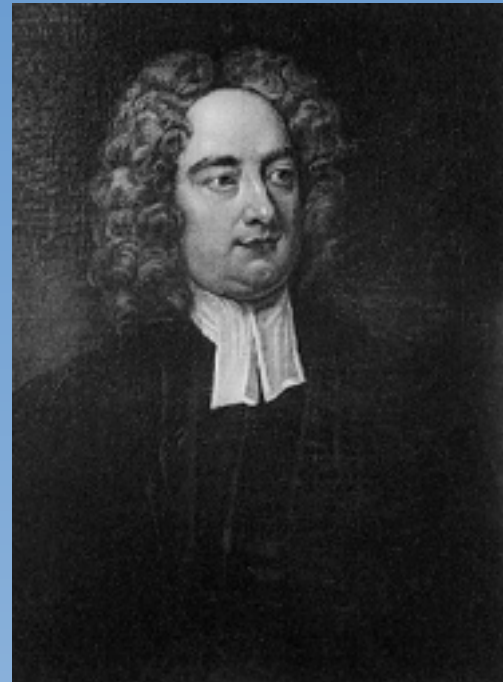
free trade with France; control of the *assiento*

the balance of trade

mercantilism and national interest



Daniel Defoe
1660–1731



Paul Methuen
1672–1757

trade problems

rousing the wool interest

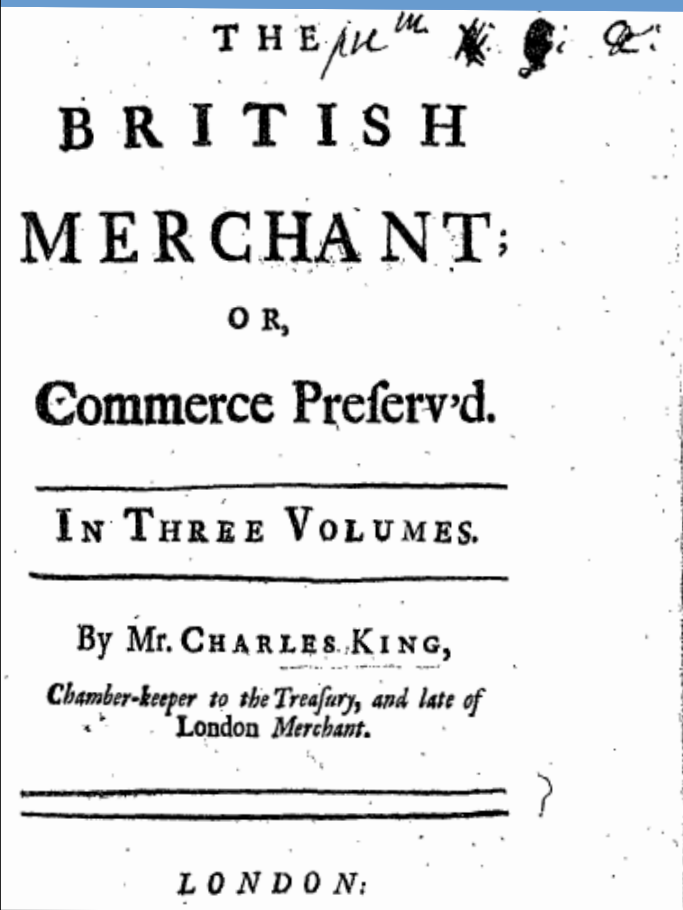
Mercator (Daniel Defoe)

vs

British Merchant (Paul Methuen)

"The Symptoms of a **Bankrupt Nation** are easily discerned"

search for statistics



Charles Davenant

*An Essay upon the Probable
Methods of Making a
People Gainers in the
Ballance of Trade 1699*

VS

Paul Methuen

To sum up all, if we pay to *France* yearly,
l.

For their Wines	450000
For their Brandies	70000
For their Linen	600000
For their Paper	30000
For their Silks	500000

1650000

And they take from us in Lead, Tin, Leather, Allum, Copperas, Coals, Horn-Plates, &c. and Plantation-Goods, to the Value of	200000
---	--------

<i>Great Britain</i> loses by the Balance of that Trade yearly	1450000
---	---------

"The Symptoms of a **Bankrupt Nation** are easily discerned"

balancing acts



David Hume
1711–1776

"apprehension of the wrong balance of trade, appears of such a nature, that it discovers itself wherever one is out of humour with the ministry, or is in low spirits."

David Hume,
"Of the Balance of Trade," 1752

"Though all that hath
been said in relation
to Book-Keeping ...
may seem a little
abstruse to the
altogether Unlearned
therein, yet there is
no such mighty
Difficulty to
instruct them as they
may imagine."
—Fisher

why

fighting time

technologies of time

time control

discussion

accounting

balancing

enduring and

accounting rules

assets = liabilities + equity

Micawber rule

"Annual income twenty pounds, annual
expenditure nineteen pounds nineteen and six,
result happiness. Annual income twenty pounds,
annual expenditure twenty pounds ought and
six, result misery."

still advice for a young man or woman?

the bottom line?

true of time and money?

why
fighting time
technologies of time
time control
discussion
accounting
balancing



coming up

2/27/2014: Reference

McArthur, Tom. 1986. *Worlds of Reference*. Cambridge: Cambridge University Press.

Read: Ch. 13, “Reference and Revolution” and Ch. 14, “Thematic Lexicography,” [104-114 in course reader]

Source: Course reader.

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Read: all plates

Source: archive.org [[hyperlink](#)]

For fun: Nunberg, Geoffrey. 2013. “Noted.” *The Chronicle of Higher Education*, Jan. 7

Read: Entire article

Source: CHE [[hyperlink](#)]