D U O D E C I M A L

N E W S C A S T

Year 3
No. 1
May
1175

The Duodecimal Society of Great Britain,
106, Leigham Court Drive, Leigh-on-Sea, Essex.

Price:
1 shilling.

Contents

E D I T O R I A L

At the General Meeting we have decided what we shall use officially for the time being as regards numerals, number names, a metric unit and an emblem. The numerals combine the proposal to use inverted numerals with a desire to standardize with American proposals, and the other decisions took as many factors into consideration as possible. It is essential that Members whose suggestions received a minority vote should respect these decisions, and realise how essential it is for us to put on a united front.

This does not mean, of course, that other schemes are to be put on the shelf. On the contrary, we shall need a large stock of alternatives for when duodecimals are given governmental consideration.

We shall henceforward provisionally use the new numerals ↊ for ten and ↋ for eleven, the new emblem, and the new basic unit equivalent to 3 ft. 8 ins.

LIST OF MEMBERS AS AT THE END OF 1174

G.L. Adeney	185, Piccadilly, London, W.1.
Prof. A.C. Aitken	36, Primrosebank Road, Edinburgh, 5.
D.G. Bagg	14, Green Gate, Waburton Green, Halebarns, Cheshire.
R.H. Beard	20, Carlton Place, Staten Island, 4, N.Y. U.S.A.
J.R. Biggs	Groves, Peasmarsh, Sussex.
F.J. Binder	Greenmead, Fairfield Road, Shawford, Winchester, Hampshire.
B.R. Bishop	106, Leigham Court Drive, Leigh-on-Sea, Essex.
C.T.A. Bishop	- " -
A.W.S. Brown	St. George's School. Windsor Castle, Berkshire.
P. van Buskirk	18508, Manor Avenue, Detroit 21, Michigan, U.S.A.
R.B. Carnaghan	21, Harford Drive, Watford, Herts.
A. Chilton	Riverdale, Ashford Road, Bakewell, Derbyshire.
I. Donaldson	New address not known.
J. Evershed	Castlandhill House, Rosyth, Fife.
S. Ferguson	47, Jerningham Road, London, S.E.14.
T.G. Franklin	59, Lugsmore Lane, Toll Bar, St. Helens, Lancs.
B.C. Haggett	Avon, Little Wakering Road, Barling, Essex.
H.E. Hallwright	Lowlands, 4387, Majestic Dr., R.R. 5, Victoria British Columbia, Canada.
ØR.J. Hinton	4, Oakfield Road, Clifton, Bristol 8.
C.N. Jeffries	35, Greenhill Road, Moseley, Birmingham, 13.
J. Halcro Johnston	Orphir House, Orphir, Orkney.
L.J.A. Loynes	Byraz Colour Bureau, 6, Monmouth Street, London, W.C.2.
W.A. Lyman	c/o Provident Tradesmans' Bank & Trust Co. P.O. Box 7648, Philadelphia, 1, Penn, U.S.A.
C.J. McMullen	St. Vincent Division, Britannia Royal Naval College, Dartmouth Devon.
L.A. Poulden	18, Melrose Avenue, Yate, Bristol.
F. Ruston	Flat 4, 34, Frognal, London, N.W.3.
O.R. Tucker	The Cottage, High Street, Braunston, Rugby Warwicks.

*Those who will find an asterisk against their name when they get this Newscast still owe their subscriptions for the current year.

ØNew Member since beginning of this year.

J. W. Andrews	P.O. Box 935, Station B, Montreal 2, Canada
	(New Member after above list was set up)
D. A. Sparrow	1, Oolite Grove, Odd Down, Bath

Two pleas from the Secretary

1. Will correspondents please excuse me should there be any delay in answering as I shall be extremely busy.

2. It will help reduce the drain on funds if anyone writing to the Society will kindly enclose a stamp for the reply.

Thank you.

The Duodecimal Society of Great Britain

RULES

1. Name

The Society shall be called "The Duodecimal Society of Great Britain".

2. Aims

2.1 To draw the attention of responsible people and organizations, with and without technical interests, to the advantages of the dozen for counting and measuring.

2.2 To organize constructive opposition to any legislative proposal to extend the decimal metric system.

2.3 To conduct research into numbers and standardized units with especial reference to those using the dozen as the numerical base.

3. Membership

Membership shall be open to all persons in Great Britain or abroad interested in the aims of the Society. There shall be four grades of members as follows:-

3.1 Life Members -- persons who pay a sum two dozen times the annual subscription as currently prescribed for Ordinary Members.

3.2 Ordinary Members -- persons who pay the annual subscription as currently prescribed.

3.3 Young Members -- persons of ₮19 years of age or under or who are still full-time at school, college or similar place of education who pay half the annual subscription payable by Ordinary Members.

3.4 Subscribing Supporters -- persons who actively support the work of the Society but who do not wish formally to become members; to receive the same rights and privileges as a full member they must pay a subscription as appropriate.

4. Members' Privileges

Fully-paid-up members as indicated at rule 3 shall be eligible as follows:-

4.1 To receive the Society's journal.

4.2 To receive any freely-distributed publication of the Society and notice of other publications by this and other duodecimal organizations.

4.3 To vote at Society's meetings.

4.4 To inspect the Society's accounts.

5. Subscriptions

Subscription rates shall be those currently fixed by the Council as appropriate to grades of Membership shewn in rule 3. Annual subscriptions shall be due on the first day of the financial year. Members, other than Life Members, joining during a financial year shall pay a sum equivalent to one-twelfth of their appropriate annual subscription for each month remaining until the next financial year starts.

6. Funds

The funds of the Society shall be banked with the London Trustee Savings Bank. All cheques drawn on the account must bear the signature of the Treasurer and one other member of the Council. The Society's financial year shall be from January 1 to December 27.

7. Meetings

7.1 A General Meeting shall be held annually.

7.2 Special Meetings may be called at the discretion of the Council.

8. Voting

Voting at meetings shall be by simple majority of those present. Proposals involving the Society's rules or independence shall require a two-thirds majority of all members (excluding abstentions), voting being by the most convenient means possible. In the event of equality of voting at any meeting, the Chairman shall have a casting vote in addition to his vote as a member of the Society.

9. Government

9.1 Council -- There shall be a central Council elected by postal ballot before the annual General Meeting, comprising Officers who are full members of the Society as follows:-

Chairman
Vice-Chairman
Secretary and Treasurer
Education and Publicity Secretary

The Council shall issue invitations to become President of the Society. The Council shall be responsible for the management of the Society within the policies decided at General and Special Meetings.

9.2 Committees -- The Council shall nominate such Committees as are necessary to assist it in matters such as educational facilities, discovery and development in numeration and measuration, and editorial functions.

Extract from the Minutes of the second Annual General Meeting of the Duodecimal Society of Great Britain, Tuesday, 12 March 1175, at The Raglan Hotel, Aldersgate Street, E.C.2.

The Meeting was opened by Mr. Charles Bishop, who, in the absence of Mr. Gilbert Adeney, took the Chair. Before the advertised Agenda was started, the Secretary played a record of the South African decimal coinage record "Decimal Dan"; it was suggested that the D.S.G.B. consider the idea of a similar "gimmick" along the lines of Mr. Peter Dickinson's "Duodecimal Dan" as published in Punch on the 8th March 1175.

The Secretary expressed regret that Mr. Gilbert Adeney will no longer be able to continue in his post as Chairman, owing to the pressure of work and to ill-health. The Meeting decided to ask the Secretary to send a note of their good wishes and thanks to Mr. Adeney.

The Treasurer stressed the need for donations to the Society for its activities; we wished to advertise, but were hampered by lack of funds; he hoped members would continue to advertise the Society's aims and views personally. The need for donations over and above personal yearly subscriptions was emphasized by the recent "summit" conference, which provided for the establishment of an International Duodecimal Association. He proposed that 100s be donated by the D.S.G.B. to the I.D.A. as an initial sum, and that a yearly sum of 0;1 members' subscriptions should also be a regular donation - this regular donation, judging by our income in 1174, would be some 21s. The Meeting agreed to donate a sum of 300s as an initial contribution.

Progress during 1174 was then described by the Secretary. He handed out copies of our current "propaganda" and requested comments and criticisms. He mentioned the September Conference and the need for International agreement on all standards, pointed out how our leaflets were waiting for this agreement and commented on the Duodecimal "Encyclopaedia" which is being prepared by the Education Secretary. Mention was also made of Duodecimal activities elsewhere: Sig. Edo Buda in Italy is writing a book on duodecimals in English, M. Essig in France is hoping to republish his "Douze, notre Dix Futur". The Meeting agreed with the Secretary that Messrs. Buda and Essig be requested to try to make future editions of duodecimal literature "grow together" in order to conserve funds and to avoid duplication of work.

[Note: Owing to unexpected circumstances this Meeting, first fixed for 10 January had to be postponed until 12 March]

Mr. Loynes suggested that any reference to "thousands" or to "hundreds" be omitted from all drafts.

Mention was next made of decimal developments. The New Daily and the Daily Mirror have both held referenda on the subject of decimal coinage. South Africa and Pakistan have adopted decimal coinage. Questions have been asked in Parliament. The new Weights and Measures Bill relates the yard directly to the metre.

For the year 1175, the Council was elected as follows:
Mr. Charles Bishop - Chairman
Mr. Brian Bishop - Secretary and Treasurer
Mr. Shaun Ferguson - Education and Publicity Secretary.

It was agreed that the post of Vice-Chairman should be left open.
It was agreed that Shaun Ferguson take as much secretarial work as possible to relieve the strain on the Secretary.
The Society's aims were passed by the members present.
The Life Membership Fee is now fixed at two-dozen times the annual ordinary subscription.
Members' privileges were passed. The articles drawn up regarding Banking facilities, and the January 1st financial year were passed.
It was agreed that the auditing facilities already made available by the Rules were fully adequate.

The Society's symbol was discussed, the Secretary having brought large diagrams along, and the unanimous vote was given to the design of three squares arranged round a central triangle, the colours chosen for the national Society being magenta (triangles) and white (squares).

The metrological systems were introduced by Mr. Shaun Ferguson in a short chat, and a vote was taken; the Meeting's votes plus the few postal votes received showed a majority in favour of the unit derived from the Circumference (ell, dometron, metron, neometre); no decision was taken on the name of this unit.

The Chairman called upon Mr. Hinton to describe the new symbols he had devised. This Mr. Hinton did in a manner worthy of a university professor, and impressed the Meeting with the large amount of work, study and research he had done on the matter. He proposed new names for the new symbols. The Meeting agreed

that Mr. Hinton should have full rights on his symbols, and that he should be consulted whenever they were to be used. The symbols and names should be made known to members, as the Meeting was of the opinion that these were the most logical set of new symbols so far seen.

The Publicity Secretary pointed out that these symbols should be publicised within the Society, but that any decision on their use should only be made at National Referendum level, as we were in favour of adding two new symbols for a temporary expedient, and as we gained far more at the present by using some of the old symbols. It was agreed privately that the members present would experiment with Mr. Hinton's symbols in order to present a fair view later on.

When a vote was taken on the two new symbols to be used, the symbol for ten was, by majority vote, an inverted 2, and that for eleven an inverted 3. These symbols are provisional until the matter of symbols comes to national level. The names for multiples of twelve chosen were: 10 dozen; 100 gross; 1000 meg; 1000 000 miliad.

Extract from TREASURER'S REPORT FOR THE YEAR 1174

Despite our hope at the last General Meeting, our routine expenses - the least to run the Society on the smallest scale - exceed our annual subscriptions. There are three ways in which we can answer this in other years: firstly by persuading new Members to join; secondly by opening a fund for extra donations for a subsidy; thirdly by reducing the size and frequency of the 'Duodecimal Newscasts'.

I am reluctant to reduce the Newscast, which is a valuable means of communication between Members, and which is now getting some interesting articles. I am reluctant to draw funds which are badly needed for us to start up a consistent campaign.

Which means we must expand. We hope to advertise a little; but far more efficacious is personal persuasion: advertisements attract passing curiosity which costs time and money; direct contact instigates permanent enthusiasm which helps us with time and money. Whilst talking about membership, I should like to remind Members of our Life Membership scheme which saves the yearly bother of subscriptions.

This year we shall have some heavy expenses - the printing of the leaflet which has been called our manifesto (actually a donation was made to cover this), and also of our advertising leaflet and other such publications. We also wish to advertise more widely and contact professional societies. If finances permit, we should like to foster the manufacture of some rulers or tapes with the duodecimal metric unit.

Although we are in a very sound financial state, it is not as high as our ambitions by any means and we cannot go ahead with them until cash equals ambition. We therefore urge Members to continue to pay their subscriptions promptly and to donate as much as they can for our campaign in the coming vital months.

The Duodecimal Society of Great Britain

S T A T E M E N T O F A C C O U N T S

for the year 1 January 1174 to 27 December 1174

			shillings (duodecimal)	£: s: d (decimal)
R E C E I P T S				
Balance credit from 1173			7XE;96	£ 56-10-9½
Subscriptions:	Ordinary Members	142;0		
	Younger "	9;0		
	Supporters	10;0		
			15E;00	£ 10-15-0
Donations			421;60	£ 30- 1-6
Publication sales			32;00	£ 1-18-0
Annual bank interest			27;80	£ 1-11-8
'Newscast' printing contributions			6E;00	£ 4- 3-0
			1278;E6	£105- 8-11½
P A Y M E N T S				
Postage			74;60	£ 4- 8-6
Printing:	Headed paper	10;0		
	Membership forms	1;7		
	Leaflets	10;6		
	Newscasts	213;8		
			235;90	£ 16- 9-9
Publications			1X;60	£ 1- 2-8
Stationary			E;60	£ 11-6
			318;30	£ 22-12-3
B A L A N C E C R E D I T				
Cash at Bank	E4E;00	£ 82- 3-0		
Cash in Hand	11;26	13-8½	E60;86	£ 82-16-8½

Brian R. Bishop,
Hon. Treasurer.
10 January 1175

MEASURING OUR WAY

Reform of our metrological system is long overdue. We need rationalised units of weight, measure and money, time and the circle, that will save time and reduce mistakes.

Although our present units are more easily factorised than those of the decimal metric system, the decimal metric system shows up their faults, their clumsy expressions and complicated calculations.

Decimalised coinage and the decimal metric system are the outcome of the rationalisation and co-ordination of all units with the present base of numeration - base ten; they are not acceptable to us, since we of the Duodecimal Society of Great Britain are unanimous in preferring the twelve-base numeration. Experience in using the decimal metric system shows the incapability of base ten to adapt itself to all needs and to provide useful fractional expressions or factors - the division of the day and the circle are notable examples; experiments with the dozenal suggestions show that a dozenal metric system would have great practical advantages. Any benefits, advantages and economics made by rationalisation are improved if base twelve is used instead of base ten.

We need to choose a basic unit of length from which we may derive the other units; then, whatever the fundamental unit in any group of measurements (length, mass, money etc.) all other basic units in this group shall be multiples or subdivisions of the fundamental unit by powers of twelve. We thus adopt the valuable features of the decimal metric system while rejecting its undesirable emphasis on the base ten.

At the Annual General Meeting of the Society it was decided to adopt a unit based upon the Earth's Great Circle as the official Society suggestion. This I deal with later. The other suggestions put forward included: (i) the present international foot; (ii) the present international yard; (iii) a dozenal fraction of the velocity of light; (iv) a length derived from assigning a value of unity to gravity; (v) a round number of wavelengths; (vi) the seconds pendulum at the Equator and (vii) the mile, dozenally divided. Whatever unit we choose, we shall have to alter our present measuring instruments - if we choose a foot as our new unit, then instruments calibrated in hundredths of an inch will need to be altered; if we choose a yard, then instruments measuring miles will have to be altered. It appears simpler to make a clean sweep.

The unit chosen at the Annual General Meeting is one that has been independently calculated in England, France and the United States; at our recent "Summit" conference it was the unit considered most suitable for adoption by national Societies. It has not yet

been given any official name, and we shall therefore be asking members to vote on the various proposals later.

We decided to adopt as our basic unit of length the 1/10,000,000 th part of the Earth's Great Circle. The Circle varies from 37;T to 38;0 miliad international feet, and it was therefore decided to adopt the value 38 miliad feet as the defining Great Circle. Our new unit, which I here call the "ell" for reference purposes, is thus 3;8 international feet. (The ell and the circumference are here expressed in feet because the decimal metre, scientific though it may be, is by its very nature incapable of dividing the Great Circle dozenally and accurately). The outstanding advantages of this ell are: that 100 ell make one-tenth of an International land-mile precisely and facilitate conversions from one system to the other, that the nautical mile is the same as the new land-mile (called league here, and equal to 1,000 ell or 0;0001 circle), and that the ell and its subdivisions and multiples correspond to the dozenal division of the circle.

Although we have found a completely new measure, we find that this has an exact correlation to both the Imperial and the decimal metric units now that the yard and metre have been given the international correlation of 1 yard - ≠ 0.9144m. The new unit, the ell, is thus exactly ≠ 1.1176 m in decimal metric terms.

From this unit of length we at once derive square and cubic measure; from cubic measure we may derive liquid measure and our new weights (as in the decimalmetric system); these, coupled with units of time, define everything that we may need. Units not directly related to the Earth's circumference, or to any agreed terrestrial unit, such as the Astronomical unit (the mean distance between the Earth and the Sun), are simply converted from equivalent feet or metre ratings to ell ratings.

We can, if we wish, even have a unit closely approximating to our present foot, in order to simplify the change-over; this unit is the 1/4-ell of E inches, divided, if necessary, into 10 new inches, each inch being E lines instead of the present 10 lines. Such a foot would of necessity be temporary, but some people might like to replace a known and familiar foot with a very similar one. This would apply only to older generations; new generations would not be taught to use this temporary measure.

Finally, to end this summary, the various names proposed for linear units are tabulated below, together with a table of conversion to and from the new system.

Table I.

denom. of unit	S. Ferguson (G.B.)	C.A. Kesselmeyer (G.B.)	H. Churchman (U.S.A.)	J. Essig (R.F.)
10^7	circumference			
10^3	league		naire	km ddl
new unit	oll	Anglo-metre	domestron(ϕ)	m ddl or neometre
10^{-3} 0;1	palm		METRON (ϕ)	dm ddl
10^{-2} 0;01	digit		edometron	cm ddl
10^{-3} 0;001	line		eremetron	mm ddl

ϕ Note: Mr. Churchman is being asked if he will agree to the name METRON being used for the new unit, with a consequent readjustment of the names for other denominations.

For the proposed names: I have kept to the "English" fashion and used a different name for each sub-division; the French suggestions use the terms of the decimal metric system with the qualifying adjective "duodecimal" (ddl above); the American proposals make use of a terminology analogous to that of the decimal metric system. Members' comments are invited on the terminology to be adopted.

Table II.

ELL	decimal notation	dozenal notation	decimal notation	dozenal notation
1000 ell	1.2 miles	3,800 ft.	1.931 km	1;E21 km
100 ell	~~528~~ ft.	380 ft.	160.9344 m	114;E268 m
10 ell	44 ft.	.44 ft.	13.4112 m	11;4E22 m
1 ELL	3' 8"	3;8 ft.	1.1176 m	1;14E m
0;1 ell	3"8 lines	3;8 inches	93.1333 mm	79;17249 mm
0;01	3-2/3 lines	3;8 lines	7.7611 mm	7;9172 mm
0;001	11/36 line	0;38 line	0.61343 mm	0;74401 mm

1 yard	9/11 ell	0;9 ell
1 foot	3/11 ell	0;3 ell
1 inch	1/44 ell	0;03 ell
1 metre	0.895 ell	0;T8T ell
1 centim.	0.008948	0;013 566 ell

Note T = ten
E = eleven

These calculations are based on the international inch which is equivalent to $\neq$ 25.4 millimetres., where the metre is equivalent to $\neq$ 1,650,763.73 Kr_{86} (orange-red line); this is, in dozenal notation, 677,377;8915 Kr_{72}.

INDEX TO 'DUODECIMAL NEWSCASTS' 1174 Year 2

NOTES FROM AMERICA

Charles S. Pagley, has been elected the new President of the Duodecimal Society of America, succeeding Kingsland Camp. All of the other officers remain.

After detailed discussion of the recommendations of the Herpiniere Conference as to symbols and units of measure, the D.S.A. have decided to continue present practices. The Society has not officially endorsed nor adopted any set of standards, nor symbols, but has allowed present usages as a matter of expediency in education of the public - and in developing their interest - in duodecimals. When any substitute is found outstandingly superior, immediate attention will be accorded to official recognition.

The importance of the Conference was immediately and unanimously recognized, and the formation of the A.D.I. was warmly commended. When that organization is in operation and ready to receive and use further funds, the Society has approved a subvention of 40 Pounds towards its initial expenses.

E R R A T A to 'Duodecimal Newscast' Year 2, No. 3 Nov. 1174

page 7	line 18	for Chairman read Churchman
14	3 & 4	Correct name and address should read: Van Allen Lyman: c/o Provident Tradesman's Bank and Trust Company, P.O. Box 7648, Philadelphia, 1, Penn., U.S.A.
14	20	('Duodecimal Newscasts' for *1174) for 1s;6d read 1s;0d

D U O D E C I M A L S I N T H E B R I T I S H P R E S S

Parts of article in 'The Economist'	15 December 1174
Letter in 'The Sunday Times' (Prof. Aitken)	17 February 1175
Verse in 'Punch', "Duodecimal Dan" (P. Dickinson)	8 March 1175
Verse Mention in 'Daily Herald'	1E February 1175

S T O P P R E S S

M. Essig tells me that M. Volet, President of the International Bureau of Weights and Measures is willing to be Hon. President of the International Duodecimal Association when fully established.
Sig. Buda has his 'Duodecimal Arithmetic', a most interesting work, ready, but needs a publisher.

D U O D E C I M A L P U B L I C A T I O N S, etc.

The following publications are strongly recommended. All are available through the Society, packing and inland postage a penny in the shilling extra. Those marked ∅ are available through shops.

Logical Money, Weights and Measures	free
Duodecimal Leaflet	free
Duodecimal Newscasts for *1173	;6d
" " for *1174 and 1175	1s;0d
C.J. McMullen A Duodecimal Calendar (Offprint No.1)	;6d
Summary of New Duodecimal Notations (Offprint No.2)	;2d
S. Ferguson A revised Currency (Offprint No.3)	;6d
Duodecimal Metric Proposals (Offprint No.4)	;2d
Report of Duodecimal Summit Conference (Offprint No.5)	;2d
F. Emerson Andrews An Excursion in Numbers	a few free
" " " Ekskurso en nombroj (in Esperanto)	a few free
Ralph H. Beard Antipatio al aritmetiko " "	a few free
∅J. Halcro Johnston The Reverse Notation	4s;0d
∅Jean Essig Douze notre dix futur (in French)	13s;0d
∅ " " La duodécimalité: chimère ou vérité future	6s;6d
Duodecimal Society of America Manual of the Dozen System	7s;6d
" " " " The Duodecimal Bulletin	3s;6d
" " " " Circular Slide Rule ∅5 or	£2:0:0