## DUODECIMAL

#### NEVSCAST

Year 2
No. 3
November
#1174
Price:
1 shilling.

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

## EDITORIAL

The Meetings of the utmost importance, one past and one to come, are the main topic of this edition of the 'Duodecimal Newscast'. At long last we have achieved a measure of international agreement on a common application of duodecimal numeral and metric proposals at the Normandy meeting in September, and chains of duodecimal collaboration have been forged which will enable us all to pull together. At the coming Meeting of our Society, we must decide definite official numeral and metric proposals, albeit provisional or interims otherwise our propaganda effort is hamstrung. This does not preclude the consideration or development of other schemes; but the time for them is when a formal body of experts sits in an officially-called commission.

It is intended in the next 'Duodecimal Newscast' to make a list of all current hembers, excluding Subscribing Supporters. Should any not wish to have their names so publicized, they should let us know as soon as possible.

The editor wishes all Membership and all duodecimalists a very Happy Christmas and countless and immeasurable joys in the New Year.

## DUODECIMAL WORLD

The Duodecimal Society of America in April had a grand Pal of \*69 members. They had had a year of great expenses because of their heavy printing programme, notably their 'Duodecimal Bulletin' and 'Manual of the Dozen System'. In their latest 'Duodecimal Bulletin' hopes are expressed that the new International Inch will allow them to develop a duodecimal micrometer and there is an article by Mr. H.C. Churchman shewing that there can be a precise correlation between the present Inch and a new Duodecimal Metre based on the Earth's circumference.

In Italy, Signor Ed(uard)o Buda has written a book in English called 'Duodecimal Arithmetic'. As he has been unable to find an editor or sponsor in the United States or Great Britain, he intends to make an Italian version and try in Italy.

In France, M. Jean Essig is in the forefront of interest in duodecimals, which interest extends over a wide range of society.

In Germany, J. Ph. Hahn has invented a translating machine of very simple design, but capable of a small and useful vocabulary of 210 (= #2454) words, based on positive-negative combinations of twelve bits. He also supports twelve as a number base.

Corréspondence on duodecimals has also come to the Hon. Secretary from Switzerland, Poland, Jugoslavia and Spain.

> The Annual Award of The Duodecimal Society of America for the year /1959 is conferred upon

Brian R. Bishop for his researches in

the bibliography of duodecimals and more especially as

the Founder of

The Duodecimal Society of Great Britain and as creator and editor of its official organ . The Duodecimal Newscast

> Kingsland Camp, President F. Emerson Andrews. Chairman of the Board.

## SOCIETY ACTIVITIES

Next General Meeting

Overless is a sincere invitation to the General Meeting on January tweafth, to which non-members are also welcomed.

With this Newscast, Members will find an extra copy of the Draft Rules so that those who have not done so already may propose any amerdments for when they are ratified at the Meeting. Members will also receive a spare copy of pages 3 to 6 so that all will have a voice in the important decisions which we shall make, by returning the sheet with the appropriate comments. Nominations for the Council are requested.

Leaflet

We shall need to have our leaflet reprinted and it is intended that it will be done by printers. Before this is done, it would be better if the new edition could incorporate the suggestions of present Members of our Society. A copy of the old leaflet is being sent to Members with this Newscast: will you please return that also with your suggestions.

## Circulator

Another circulator went out some months ago to those who said they wished to receive it. Despite a request to pass this on urgently and to let me know when this was done, no one has returned the slip notifying the Secretary where it is. Will who ever still has the circulator please pass it on immediately and let the Secretary know.

Manifesto

The leaflet for distribution among those busied with rationalizing British units will soon follow this Newscast to the printers.

Subscriptions

All readers are reminded that subscriptions fall due on the first of January. Ordinary Members and Supporters pay a dozen shillings a year and Young Nembers half that.

In view of the possibilities of more intensive activity it is even more imperative that we receive contributions for our funds or at least receive subscriptions on time. Please pay now.

To: The Hon. Treasurer, The Duodecimal Society of Great Britain.

I herewith remit the sum of £...s...d. as my subscription for the year (1175 ( $\frac{1}{2}$ 1961) and contribution to the funds of the Society.

# The Duodecimal Society

## of Great Britain

106, Leigham Court Drive, Leigh-on-Sea, Essex ...

#### GENERAL LEETING

The second General Meeting of the Duodecimal Society of Great Britain will be held at

> the Raglan Hotel Aldersgate Street

at half past six p.m. on Thursday, the TWELFTH day of JAMURARY, =1175

## Subjects for discussion

- 1. Progress in #1174
- 2. Finance
- 3. Election of Council
- 4. Ratification of Rules
- 5. Official adoption of Society emblem metric standard number symbols and number names
- 6. Other business.
  Talk by Shaun Ferguson, "Measuring Our Way".

## Light refreshments

All members, friends and well-wishers are cordially urged to come along. Please notify the Hon. Secretary as soon as you can if you expect to attend and of any matters you will wish to have raised if you cannot attend.

Nearest Underground Station: St. Paul's (2 mins)
Bus routes: # 7, 8, 22, 23, 25, 32 East/West St. Paul's
4, 179 North/South to St. Martin's le-Grand (1 min.)

To: The Hon. Secretary, The Duodecimal Society of Great Britain.

I expect/do not expect to attend the General Meeting and will be accompanied by .... guests.

Signature ...........

# SOCIETY EMBLEM, HETRIC UNITS NUMBER SYMBOLS, NUMBER NAMES

It is essential that we decide as soon as possible a) a Society badge, b) metric units, c) number symbols, and d) number names. We should therefore appreciate your views on the form overleaf, a spare copy of which is enclosed for you to return to the Hon. Secretary as soon as possible, and certainly before the General Reeting. Even if the decision is only temporary, we wish to make the best choice we can. We hope to reach some firm decisions at the Meeting; for we cannot effectively spread our message without them.

The following notes will explain the proposals, based on those made at the international meeting in Normandy. (see pages E-12)

#### a) Society emblem

The only simple proposal submitted within our Society was proposed for the international emblem (para.X proposal no.3). It may be advisable for the emblem we choose to be international.

#### b) Metric units

We tabulate on pages 7 to E the proposals we have so far been able to discover. At the discussion in Normandy, it seemed that the DONETRON provided the most likely and practicable unit on which agreement could be reached (para.6). This has the added advantages of shewing direct and exact relationship with the foot and, like the decimal metre, it is based on the mean circumference of the Earth, sufficiently close to \$38,000,000 feet to warrant that figure being used. Coinage units were summarized in the central feature by Shaun Ferguson in the last Duodecimal Newscast, 'A Revised Currency'. The principle of the unit and the name of the unit should be kept quite separate in our considerations.

#### c) Number symbols

A large number of proposals were listed in 'Duodecimal Newscast' for January this year (pages 10-12). At the Normandy meeting the basis for a choice was narrowed (para.9).

#### d) Number names

A list of proposals is given on page R. At this stage we are really only concerned with English words.

6.

To: The Hon. Secretary,
The Duodecimal Society of Great Britain.

I support the following proposals as at least interim solutions:

- a) Society emblem: the Council design a badge based on proposal number  $\phi$ ..... of those made at the international meeting;
  - the Essig-Churchman duodecimal (do)metron as a fundamental metric unit on which all others will be based;
- of the proposals made at the international meeting for a principle on which to base a new symbol for ten and eleven: in particular I propose \$\frac{1}{2} \cdots \c
- d) Number names: the Duodecimal Society of Great Britain officially use:
- .....("dek"?) for X .....("gross"?) for 100
- ......("el."?) for E ......("meg"?) for 1000
- .....("dc"?) for 10 .....("miliad"?) for 1 000 000.

Where I wish to amend these resolutions, I give my alternative proposal on an attached sheet

please put in your proposal

new symbol for eleven;

Signed ..... date .....

Duodecimal Society of America

FOOT and YARD: these are the measures of length already in existence. It is proposed to retain the two systems side by side in the ratio of 3:1

PINT: the volume of one pound of distilled water weighed in air at 200 temperature and XO quins barometer

POUND: the weight of one cubic palm of distilled water.

Sir Isaac Pitman

FOOT: the measure of length already in existence.

Jean Essig, J.E. Nystrom, H. Churchman

METRE DUODICIMALE: 10-7 partie de la circonférence terrestre = \( \frac{1}{1.116} \) 326 588 934 62 mètres. This assumes a circumference of \( \frac{40}{40},000,000 \) mètres.

LITRE DUODÉCIMALE: duodécimètre cube d'eau...

TOM E DUODÉCIMALE: mêtre cube duodécimale d'eau pure à la temperature de densité maximum (4°)

METRE (Nystrom): 10-7 of mean circumference of the earth,

circumference assumed at \*37 E3E 697;25 feet

DOMETRON (Chairman): 10-? of Great Circle, assumed at \*38 000 000 internat feet. C.A. Kesselmeyer in \*1120 invented the Anglo-Metre as 10-7 of the Equator whose length he approximated to \*38 000 000 English feet. S. Ferguson suggests the name ELL for this length.

A. Norland

LINK: 10-9 speed of light = 9:6 inches

KURLOD: weight of 1 kan of water = about 2,7 lb. of water.

Other fundamental standards of length

i) W. S. Crosby: twice the distance a freely falling body drops from rest in the first 10<sup>-6</sup> day of fall = 1 centiell = 84/9 mm.; 1 ell = about 3X:669 inches.

ii) Henry Martyn Parkhurst: Length of pendulum making 10<sup>5</sup> vibrations per day at the equator at mean sea level at the temperature

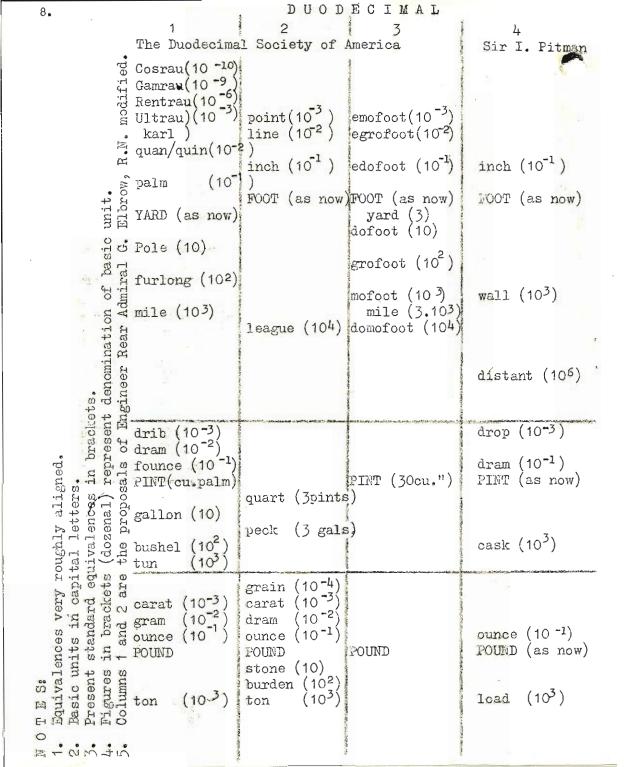
of melting ice = 4;84 inches

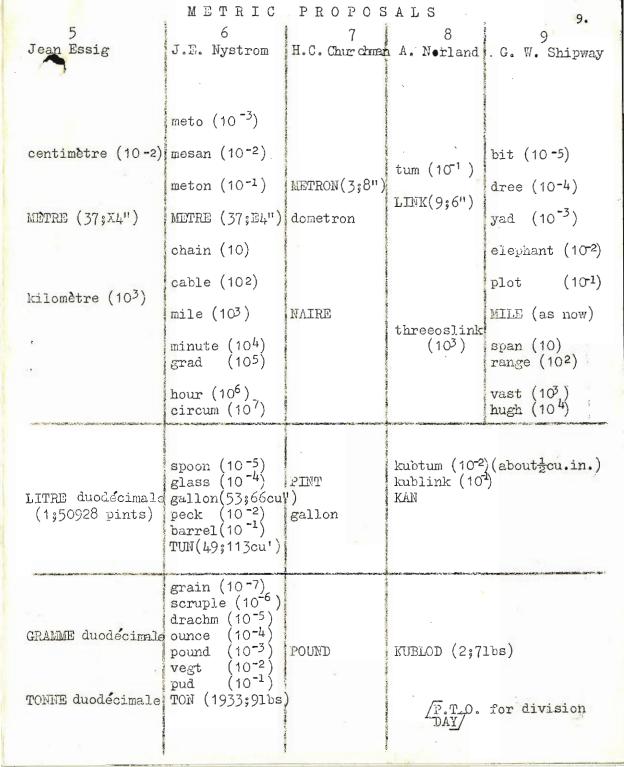
iii) 1 decimal metre = 62% 9%4; 169 ared cadmium

= 677377;8915 A orange light Krypton \*72

1 American yard = 589 055; E8 Agreenline of purified 198 isotype of mercury

International Pitch A<sub>L</sub> = 303 vibrations per second





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## Jottings from the Duodecimal Summit Conference by Brian R. Bishop

at La Herpiniere, Beaumontel, par Beaumont le Roger, Eure, France on Tuesday, #21 September 1174

between MM. Jean Recig, and A. do Bailliencourt representing France Mr. Kingsland Camp, President, Duodecimal Society of America Mr. Brian Bishop, Secretary, Duodecimal Society of Great Britain.

In the peace of the Autumnal Normandy countryside, for one day people representing three countries, three temperaments, three generations, met, exchanged views and agreed unanimously on duodecimal matters which were shewing signs of otherwise leading to increasing divergence. The sun shone both literally and metaphorically and may have had some bearing on the benign atmosphere that pervaded the whole day. During the several hours solid discussion I jotted down a dozen points in no order of precedence from which I have made the following not official summary.

- 1. We learned that Signor Eduardo Buda, an Italian who has written 'a book in English on duodecimals, has shortened his Christian name in duodecimal correspondence to Edo, the D.S.A.'s name for 1/10.
- 2. Mr. Camp asked what the demand for 'New Numbers' in Europe was. 'Douze notro dix futur' has saturated the Continental demand and in England there would certainly be a small demand, but not enough to make it an economical proposition in itself. It was agreed that the authors of these two books should exchange views to ensure that future editions grow together rather than apart. The question of financial assistance for a new edition of 'Douze notre dix futur' will be referred back to the Duodecimal Societies of Great Britain and America.
- 3. Bibliographical discoveries will be exchanged.
- 4. We asked M. Easig about the formation of a dozenal society in France. This, he saw, was not easy at the present, especially in the continuing changes in the French way of life and in any case a young and vigorous organizer and secretary is needed.
- 5. Mr. Essig asked us to leave Press publicity about the meeting to a journalist friend of a French national daily, who, he hoped would give it full treatment.
- 6. We all agreed that a new international unit is needed, and research in our three countries had independently arrived at one.

Jean Essig had calculated a néomètre, equivalent to 37;X4..feet or /1.116... decimal metres which is the 10<sup>-7</sup> part of the Earth's circumference, assumed to be / 40 000 000 decimal metres.

Henry C. Churchman in America has calculated a dometron and Shaun Ferguson in Great Britain an ell, equivalent to \*3;8 international feet exactly or /1.1176 (\*1;14E...) decimal metres exactly, which is 10<sup>-7</sup> part of the Earth's circumference assumed (more accurately) to be #38 000 000 international feet.

All agreed that these three people should collaborate to evolve a new metric unit, 10-7of the Earth's circumference, and equivalent to 3;8 international feet as at least an interim solution. The feasibility of subdivision into 40 new sub-units instead of 38 inches can be explored.

7. International currency issued by U.N.O., would be an ideal; but M. Essig pointed out the great difficulty because of the degree of financial agreement necessary. Choice of the most useful denominations can be made from the pattern 1, 60, 40, 30, 20, 10.

8. M. Essig told us of his plan for dividing the day into the following subdenominations (j=jour bh=bi-heure)

15 = 10<sup>bh</sup> = 1 000 minutes ddls = 100 000 secondes ddls (nouvelle unité)

Mr. Camp suggested "bi-heurs" be translated as du-hours and the sign below, composed of 2 and pi, could be used for the sign for the new small angles. Within the D.S.A. a new logical clock face has been proposed with zero at the bottom





- 9. Number symbols were discussed and three basic principles agreed:
  - a) the numeral should be easy to write;
  - b) the first nine digits and zero will romain the same in an interim solution;
  - c) the new digits should not be confusible with other numerals or letters of the Greek or Latin alphabets.

Several proposals for the new digits were made and it was agreed that ideas for an interim solution should be invited, bearing in mind the following proposals culled from various sources:

examples principle advantages disadvantages X E 1. Existing Found easy in practice Precedence of 6 & 9 Continues present incidence number Type founts can be inverted or of curved and cornered inverted (though reversed numerals not always on-Precedence of 6 and 9 line) but not (Essig) See 'Douze notre dix futur' reversed. 2. Adapted Widely used by Duodec. Soc. X letters America Greek chi is stylised Latin X for ten Resemblance too close to X and E Greek epsilon is stylised originals and to (Camp) Roman E for eleven. common mathematical symbols. 3. Existing X Obviates expense of new type fount face. The meeting conmutilated. sidered this principle and the example [ possibly in manuscript) the (Bishop) most practicable. We had all felt the lack of some symbol to recognize each other by when we met at the station and we agreed that a simple design was necessary and that ideas should be invited based on the following three proposals: 1.) Essig: Twelve blue stars on a golden background. This is the reverse of the flag of the Council of Europe. 2.) A circle halved, the bottom half shaded or barred with a multiple or sub-multiple of a dozen bars. With the zero at the bottom it resembles the watch to follow the clock face already mentioned. (Bailliencourt) 3.) Bishop: A twelve-pointed star with the four points of the compass clongated. Essig in a subsequent letter mentioned this proposal by Mr. Humphrey of the Dd.S.A. and I agree this also has possibilities, perhaps less the three-outside triangles: 3 squares (4) =

10 lines./

E. We agreed that duodecimalists in all countries must collaborate to the greatest extent possible in the use of funds, facilities and ideas. Books, publicity and research were mentioned as examples.

10. The International Duodecimal Association (Association Duodecimale Internationale) was formed to meet the need for international collaboration: to unite duodecimal research and development and international relationships with other bodies.

The following people are to be invited to be the Honorary Committee:

M. Volet - President of the - Hon. President international weights and measures commission

Sig. Buda - Italian duodecimalist - Hon. Vice-President Mr. Beard - Secretary, D.S.A. - Hon. Vice-President

The following Executive Committee were elected:

Mr. Jean-Marie Essig President
Wr. Kingsland Camp Vice-President

Mr. Kingsland Camp Vice-President Er. Brian R. Bishop Secretary and Treasurer

The Association will federate national Societies and individuals in countries without a Society. The former will be requested to pay a sum equal to a twelfth of the annual subscription of their members and the latter subscription equal to the mean of the full normal annual subscription required by the national Societies (i.e. ½(\$3 +10s.) at present). Donations will be invited. It was agreed that the funds be in Swiss francs, traditionally the most stable currency. /N.B. The Treasurer afterwards found of difficulties as the normal currency regulations require the currency to be that of the country of the financial administration.

No, the meeting did not end. That was only the start on an international scale of an interchange of inspiration which those present, now close friends are continuing and which all with whom they have contact can now take part in on their return.

I hope that those who read these notes, will realise the strong desire of all concerned for co-operation and mutual compromise. Duodecimal reform is one which, whilst all wholeheartedly agree to its fundamental principles, attracts divergent ideas, many of equal value, of how to operate those principles. Nevertheless we were able at la Herpiniere to point to some ways of operation, already widely supported, and also of co-operation, which will enable us to propagate the principles of duodecimals in common terms.

Printed in 'Ducdecimal Newscast' Year 2, No.3, December \*11747

### DECIMAL CURRENCY NEWS

The Australian Committee was precluded from dealing with the schemes other than those using ten as their base which came before it. Its terms of reference were constricted to "the advantages and disadvantages from placing the currency on a decimal basis" and by their Prime Minister's speech accepting decimal coinage. "After examining various decimal systems, the Committee recommends the introduction of the /10s.-cent system as most appropriate for Australia." The choice of this system rests mainly on the important general attitude to the shilling almost as a basic unit. Costs will be over /£30 000 000.

There are references suggesting uneasiness over the counting limitations of ten. Although binary systems are mentioned (\$\frac{3}{5}\$ 2, 3), the Committee are attracted by the divisibility of twelve (\$\frac{3}{5}\$ 1, 77, 78, 115).

Decimal Coinage in Pakistan - Facts and Figures, Ministry of Finance, Karachi, September 1174.

This booklet is a handbook for the changeover from the present Pakistani coinage system to a decimal system. The Rupee is to be divided into \$\forall 100\$ paisa, instead of the \$\forall 16\$ annas, \$\forall 64\$ pice, and \$\forall 192\$ pies. Examples were given of the transitional difficulties of changing and extensive conversion tables were provided. S.F. Report of the Decimal Coinage Committee, Federation of Rhodesia and Nyasaland, October 1174.

The Committee adapts decimals to the Federation's currency with some ingenuity, proposing 5-decime and 2-decime coins to facilitate conversion of pence to cents, a hundred of which are the new major unit equal to ten present shillings, (§ 194). The cost will be \$\frac{1}{2}\$\$£1 686 850 (§§ 257, 258).

Your Secretary wrote to the Commission who wrote this odd paragraph (§ 117): "A variety of decimal currency systems were described in evidence. One was the duo-decimal system based on multiples of twelve. This system was an interesting intellectual exercise but its practical application assumed a degree of sophistication of thought which we considered to be rare in any country". The usual resigned regret at the lost divisibility is made (§§ 39, 77, 78 et passim.)

'The New Daily' referendum, issued 11 June 1174

"Do you favour the conversion of British coinage to the Decimal System? Answer Yes or No....."

Four points were listed in favour, only two against. No allowance was made for "Don't Knows." The result is a majority of Yeses.

#### MEMBERSHIP

Change of address Van Allan Lyman:c/o Provident Tradesmans' Bank and Trust Company, P.O. Box 7648, Philadelphia, 1, P.A., U.S.A.

New Member
Paul Van Buskirk: 18508, Manor Avenue, Detroit, 21, Michigan, U.S.A.

#### ERRATA

to 'Duodecimal Newscast' Year 2, No.2, June #1174
page 6, line 7 for duodecimal read decimal
page 13, line 3 before \$\forall insert 1

to 'A Revised Currency' by S. Ferguson printed in last 'Newscast' page 2 ('Newcast' page 8) Table A

for  $\neq 270$  copper pence -  $\approx 1$ ; 0 shillings &c. read  $\neq 270$  copper pence -  $\approx 1$ ; 6 shillings &c.

## DUODECIMALS IN THE BRITISH PRESS

Advertisement in 'John o' London's' (L. Loynes) #7 July Announcement in 'Southond Standard' #1X September:

# DUODECIMAL PUBLICATIONS, 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 of are available through shops.

Duodecimal Leaflet free
Duodecimal Newscasts for #1173 ;6d
" for x1174 ls;6d
C.J. McMullen A Duodecinal Calendar
S. Ferguson A revised Currency 36d
Duodecimal Metric Proposals ;2d
Report of Duodecimal Summit Conference ;2d
F. Enerson 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
ØJ. Haloro 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 75,6d
" " The Duodecimal Bulletin 3s;6d
" " Circular Slide Rule \$5 or £2:0:0