Why a "Mädas" in particular?

Chronometer perfection amongst watches distinguishes the

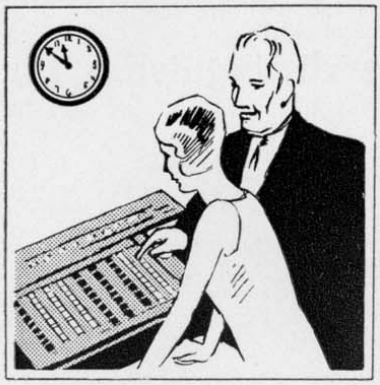
"MADAS"

amongst calculating machines!

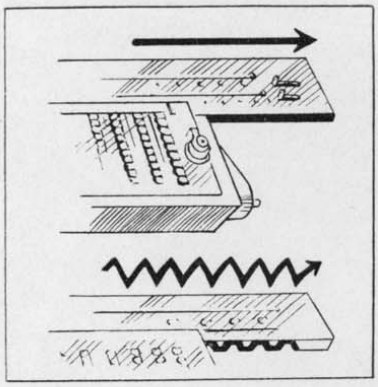
Modell VIIeTA / Codeword TOMIS

You will find "Madas" calculating machines everywhere where the highest possible efficiency is demanded of a machine.

Thousands of business people extol the "Madas" in particular on account of its great simplicity and absolute accuracy.

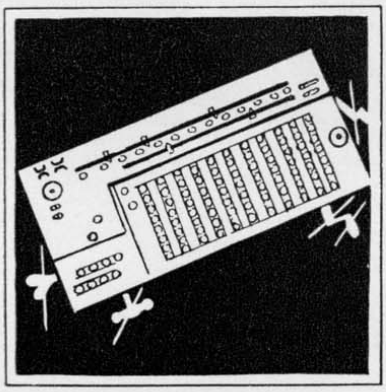


The operation of the "Madas" can be learned
in
TEN MINUTES!



No noisy jumping up and down of the carriage when it is being shifted or numbers are cancelled &c. and therefore no heavy wear on the extremely sensitive component parts.

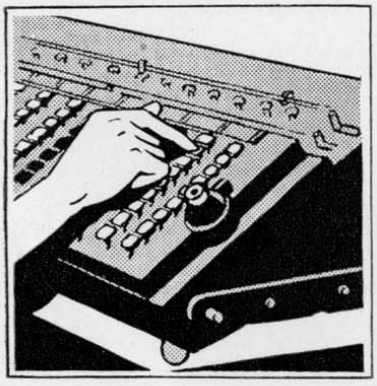
SILENT, EASY GLIDING
OF THE CARRIAGE.



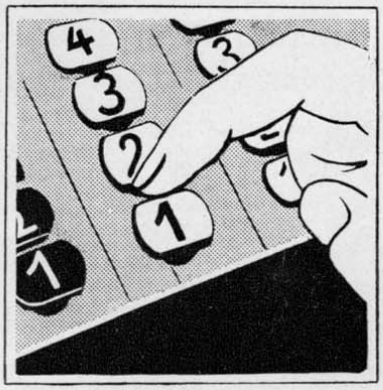
The construction of the "Madas" enables all the operative parts to be placed

ON ONE LEVEL

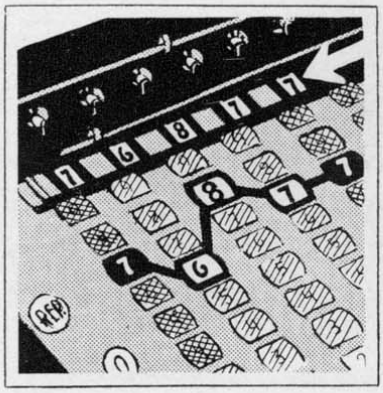
i. e. on the top or face of the machine, instead of being distributed inconveniently at the sides and in front.



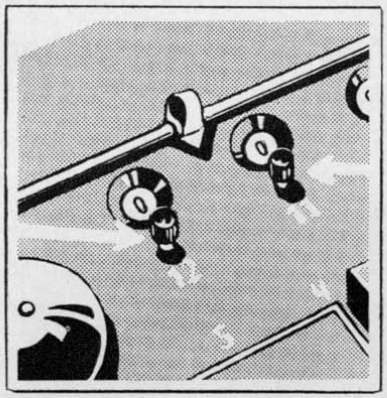
Visible, appropriately inclined working surface, with a nine to eleven column keyboard.



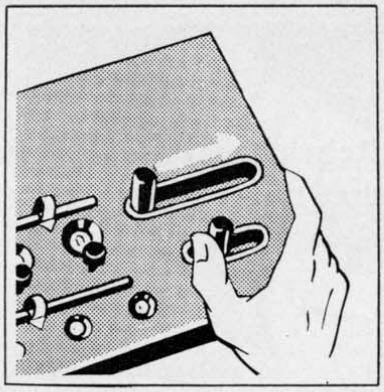
In many calculating machines it is possible to accidentally depress two keys in the same column but the mechanism of the keyboard on a "Madas" eliminates this risk even in the hands of the quickest operator.



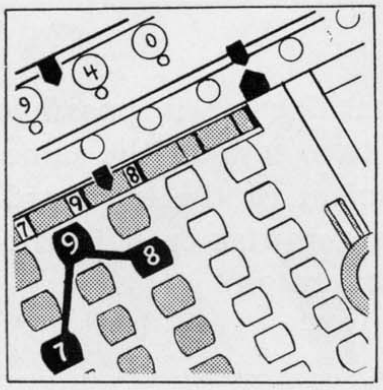
The straightline control column for the amounts placed in zig-zag fashion on the keyboard allows of a rapid and effective checking of the setting.



The setting knobs placed below the result registering dials permit of the amounts being set directly in the result-row which, in various combined calculations, allows of a considerable saving of time (see for instance, Problem No. 5, page 12).



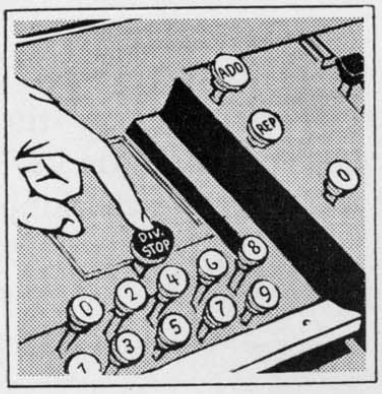
The figures are effaced by a short light pull of the effacer-knob, instead of by irksome turning of cranks &c.



Easily comprehensible determination of the decimal point. When the decimal pointer in the top register and that on the main keyboard are opposite each other, the

FIXED DECIMAL POINTER

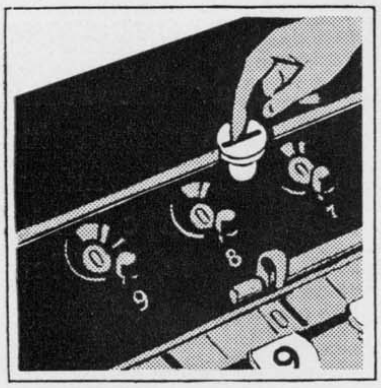
automatically indicates the decimal point in the quotient register.



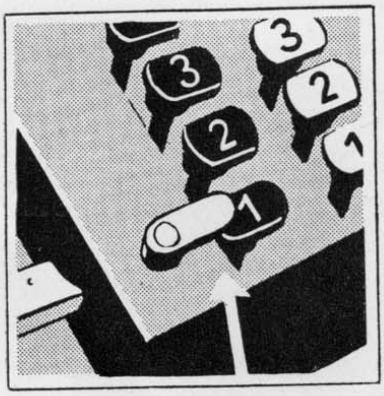
By means of the

DIV-STOP

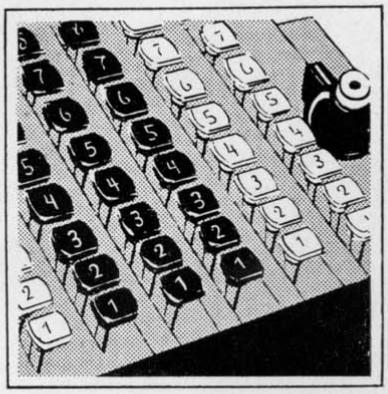
every division, after the machine has calculated to the required number of decimal places, can be interrupted by a short pressure on the above-mentioned key.



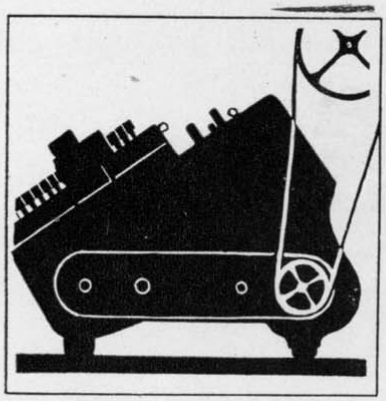
In all XI-column "Madas"-machines (and in all IX-column models on request) a device is fitted in the top (product) register between the seventh and eighth digit to enable the register to be divided into two sections. This device is controlled by a small knob which has a white line engraved accross its face. When this knob is turned so that the white line is vertical it enables individual products to be obtained in one section while the compound total of those can be accumulated in the other section simultaneously. When the white line on the knob is placed horizontally, the two sections of the top register are united.



A simple device – the item counter – makes it possible to check the number of items which are being added.



Standard keyboard with visible division into white and black columns, which can be supplied in any desired arrangement on request.

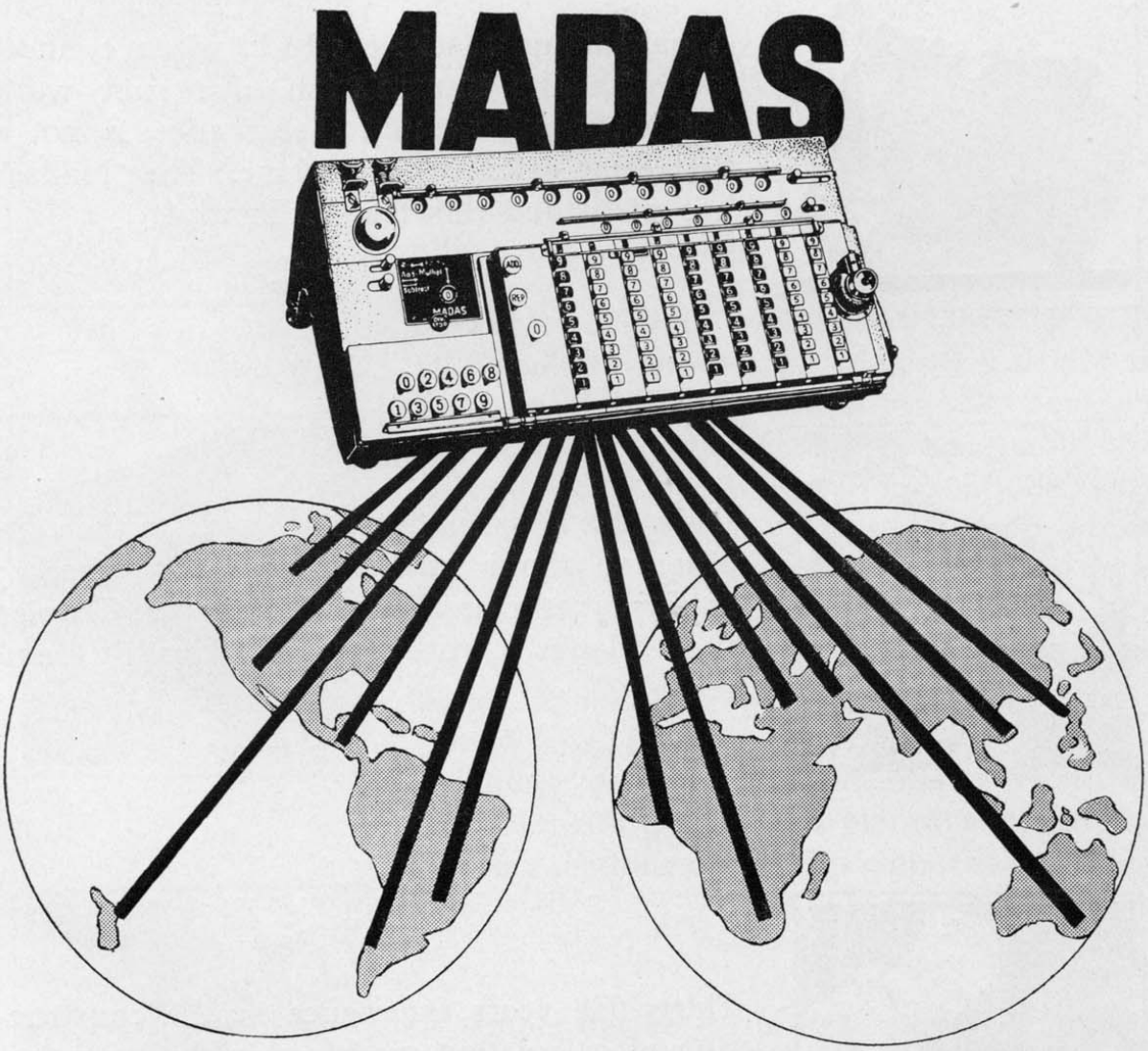


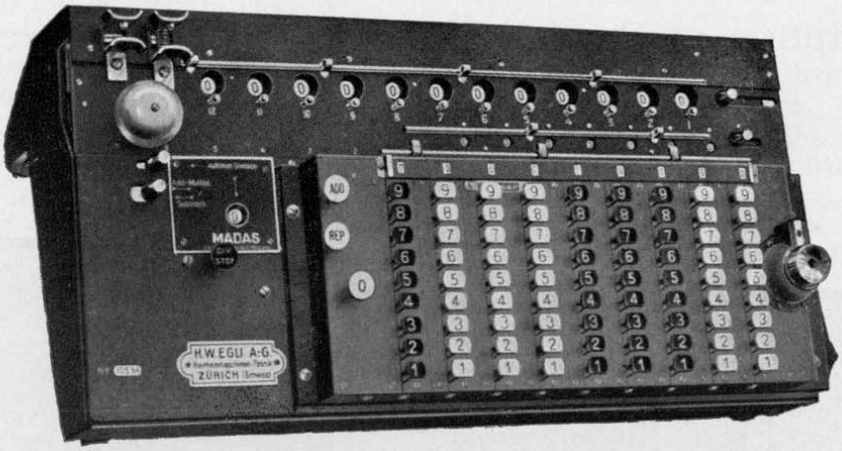
A calculating machine which, when connected with the transmission, does not work faultlessly and without disturbance, is not a first class calculating machine. The "Madas" has withstood this test brilliantly!

Only first class materials are used in the construction of our "Madas" Calculators; whether in icy Siberia or the Equator in the Tropics the "Madas" works equally readily and reliably.

Thirty-five years experience in the construction of calculating machines is the best guarantee of a product which will satisfy all requirements.

There is no civilised country in the world where the "Madas" does not delight its fortunate and satisfied owners.

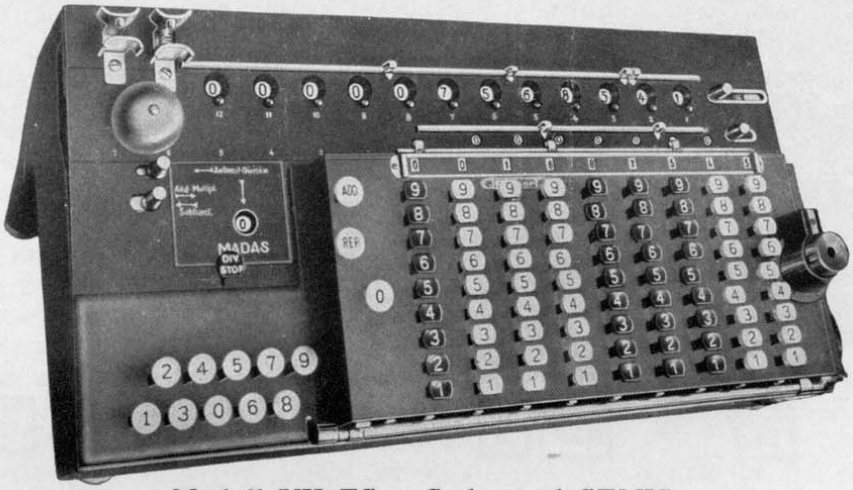




Modell VIIeT / Codeword MISS

This type of machine is constructed in the following capacities:

	Type VIIeT / MISS	Type IXeT / MINA	Type XIeT / MILO
Multiplicand or Divisor .	9 digits	9 digits	11 digits
Multiplier or Quotient .	7 digits	9 digits	9 digits
Product or Dividend . .	12 digits (14)	16 digits (18)	16 digits (18)



Modell VIIeTS / Codeword SEMIS

This type of machine is constructed in the following capacities:

	Type VIIeTS / SEMIS	Type IXeTS / SEMINA	Type XIeTS / SEMILO
Multiplicand or Divisor .	9 digits	9 digits	11 digits
Multiplier or Quotient .	7 digits	9 digits	9 digits
Product or Dividend . .	12 digits (14)	16 digits (18)	16 digits (18)

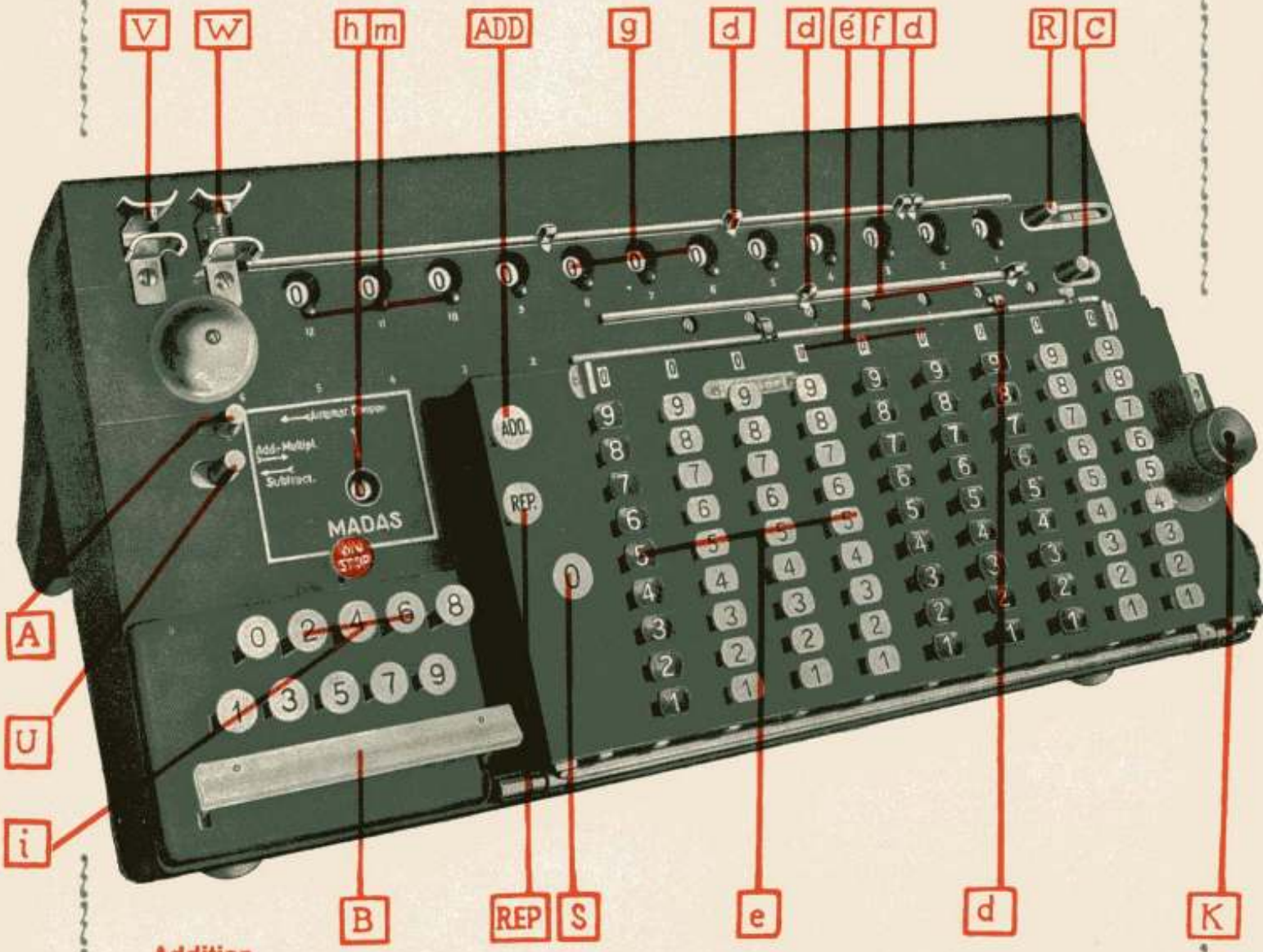
NB. The motors are marked as follows:

for direct current { 110–115 volts = DIRECT
220–230 volts = DIRECTOR

for alternating current { 110–115 volts = ALTER
220–230 volts = ALTERNATE

In addition to the above the Works manufacture a dozen other types, so that a suitable calculating machine can be supplied for any and every class of service.

Description of the full-automatic "Madas"-Calculator.



Addition

1) Cancel all numbers which may be displayed in any or the registers from a previous calculation by means of the effacers «**C**» and «**R**» and the key «**S**».
2) Regulator «**U**» must be in its extreme right hand position.
3) The carriage or upper moving part of the machine must be in its extreme left hand position.
4) The key marked «**ADD**» must be depressed.
5) Set the first item to be added with the keys on the main keyboard «**e**» and press the button or plunger «**K**» once. Then set the second and subsequent items to be added and press the button «**K**» again until the last item has been transferred to the total register «**g**».

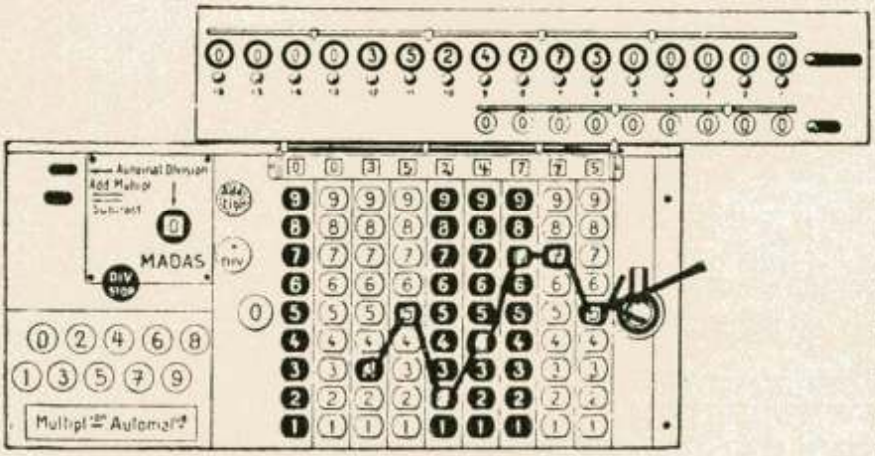
Subtraction

1) Efface all numbers from the registers of the machine as above described.
2) Regulator «**U**» must be in its extreme left hand position.
3) Knob «**A**» must be in its extreme right hand position.
4) The carriage must be in its normal or left hand position.
5) Press down key marked «**ADD**».
6) Set the figures of the minuend in the dials «**g**» or set them on the keyboard and transfer them to the dials «**g**» as described in paragraph «**g**» in the general instructions.
7) Set the figures of the subtrahend with the keys of the main keyboard «**e**», and press the knob «**K**» once.
8) The difference or answer will be shown in the dials «**g**».

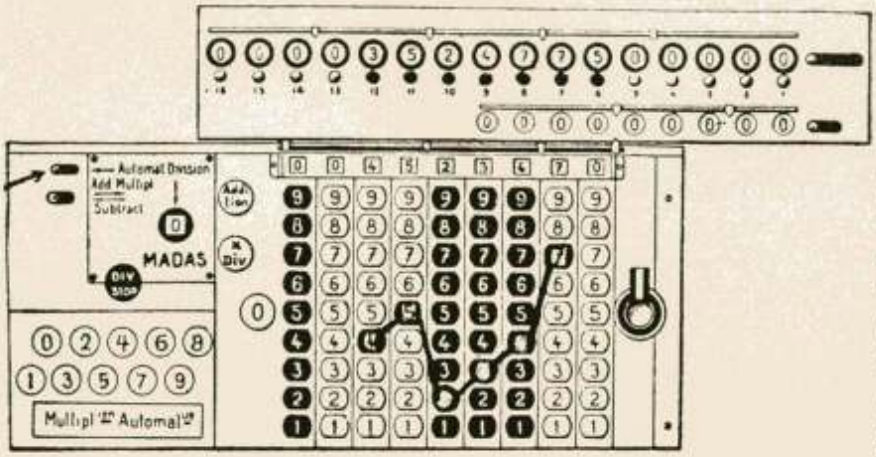
Division

Every "Madas" divides entirely automatically!

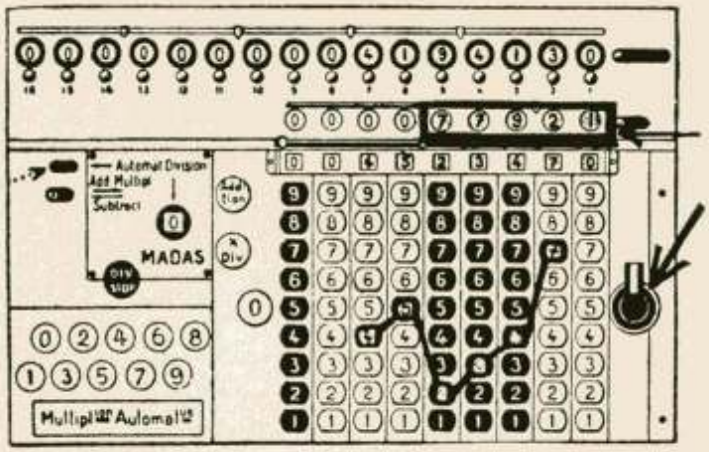
Problem : 35'247,75 : 45,2347 = ?



The carriage to be in its extreme right hand position to which it is quickly placed by means of the carriage shifter **W**. Insert the figures of the dividend in the top-register **g-g** by means of the small milled buttons **m-m** commencing with the extreme left hand dial 3-5-2-4-7-7-5. Place a sliding decimal pointer **d** immediately over the dials **g-g** between 7,7 . . .



Set the figures of the divisor 45,2347 on the main-keyboard by means of the keys **e-e** commencing at the left side so that the first figure of the divisor is set in that column of the keyboard which is in alignment with the first or extreme left hand figure in the top register **g**. Place a decimal pointer **d** after figure 5, . . . — Knob **A** in extreme left hand position.



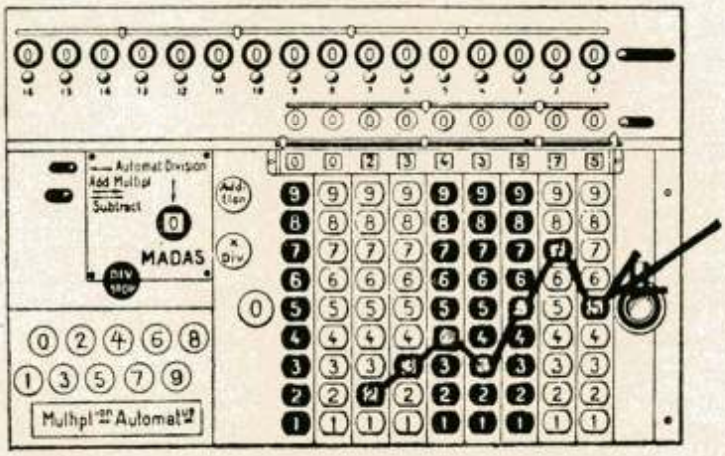
Depress the knob **K** and the machine will perform the entire calculation automatically. If it is desired to stop the division calculation when the requisite number of quotient figures have been displayed by the machine in register **f-f**, it is only necessary to depress the key marked **DIV-STOP.**

Move the carriage by means of the carriage shifter **W** until the decimal pointer **d** which you have placed after figure 7 in register **g-g** is in alignment with the decimal pointer **d** you have placed after figure 5 in register **é-é**. The fixed decimal pointer which is located above the top (right hand) side of the main keyboard will now indicate the position of the decimal point in the quotient shown in the register **f-f**.

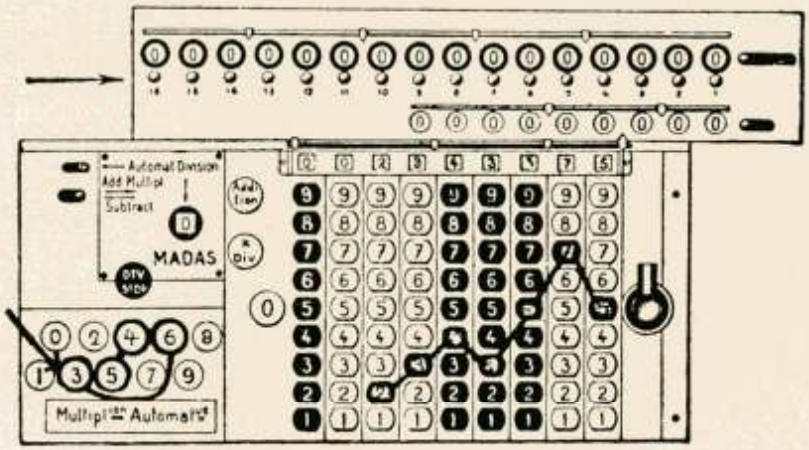
Multiplication

This shows the manner in which the "Madas"-Superautomatic performs multiplications:

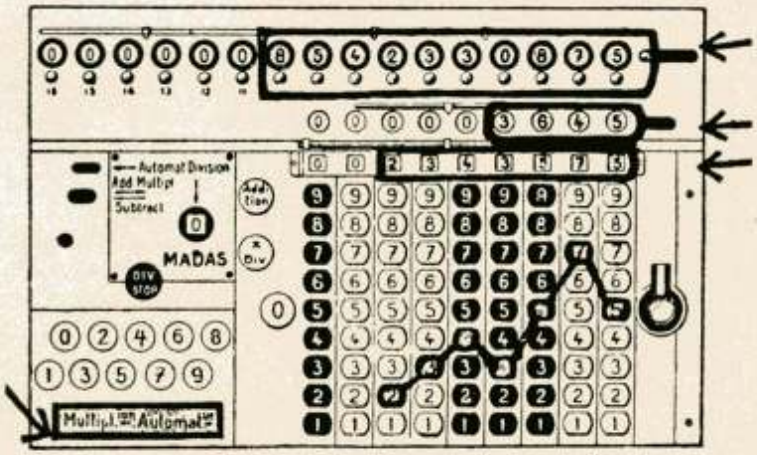
Problem: 23'435,75 × 36,45 = ?



Set the figure of the multiplicand i. e. 23'435,75 on the main keyboard **e-e**.



Submit the figures of the multiplier 36,45 to the auxiliary or multiplying keyboard **i**, beginning with 3—6—4—5—. At each key-depression the carriage containing the product and multiplier registers will be moved one place to the right automatically.



It is now only necessary to press the multiplying bar **B**. The multiplication is then performed automatically and the figures which have been inserted by means of the small keyboard will be repeated in the register **f-f**. The product or answer to the multiplication will be shown in the register **g-g**.

A — Knob for automatic Division.

B — Starting key for Multiplication.

C — Effacer for multiplier and quotient register. To efface figures from this register the knob must be pulled to the extreme right.

ADD — Key for simple Addition and Subtraction. When this key is depressed the numbers set on the keyboard are automatically released or cleared after each item has been added or subtracted once.

K — Press button for electric contact. If it happens that, when a calculation is finished, this press button does not immediately return to its highest or normal position, the electric current should be switched off and the electric plug to the machine disconnected. There is a milled screw to the right of and near the front of the machine protruding through the nearest or lowest end of the metal casing which covers the driving belt. This should be turned backward or forward until the press button **K** is released after which the electric plug can be reconnected, the current switched on, and the machine is again ready for use.

R — Effacer knob for clearing figures from the product or dividend register which is the top register containing twelve or sixteen figure dials. This knob must be pulled to the right as in the case of «**C**».

REP — Repeat key. When this key is depressed the key marked «**ADD**» will be automatically released, as it is impossible for both of these keys to be depressed at the same time. When the repeat key is depressed any figures set on the keyboard will remain set until a multiplication or division sum has been completed.

S — Any figures on the keyboard can be cleared by one single depression of this key marked «0».

U — Regulator.

V — Carriage shifter or release key. By placing the thumb under the lower part of this device and pressing the upper part downwards with the index finger, the carriage can then be moved one definite step or place to the right. This spacing is automatically determined and the carriage cannot be moved further without again releasing this device.

W — Carriage release key also, but when this is manipulated in the same manner as «**V**», the carriage can be moved from one extreme end to the other without interruption by the automatic or stepping mechanism.

d — Pointers for marking decimal places which can be moved along to any position on the nickled rails to which they are affixed.

e — Keys of the main keyboard on which the figures are set for the multiplicand (in multiplication) or the divisor (in division), as likewise all items in simple addition and subtraction.

é — These dials covered by a glass screen show the figures set on the keyboard but in a straight line. This enables them to be checked by inspection without having to trace them on the keyboard.

f — The dials in this row show automatically the figures of the multiplier (in multiplication) or of the quotient (in division).

g — These dials show the figures of the product (in multiplication) or the dividend (in division). The figures of a dividend can be entered in these dials by turning the small milled buttons situated at the lowest point of each. This enables a constant divisor to be set on the keyboard without being disturbed while various dividends can be set in the top register independently. On the other hand, a dividend can be set on the keyboard and transferred to the top register by one depression of the press button «**K**», while the regulator knob «**U**» is at the right of the slot in which it is situated.

m — Milled button situated at the lowest point of each result row dial, serves to arrange the wanted figure directly on the dial.

h — Division control dial. This acts automatically and can never show more than the figures «0», «1» or «2», when in operation. When the whole of a division calculation has been completed this dial should show «0». If it shows «1» or «2» the parts of the machine «**A**», «**U**», «**V**», «**W**» and «**K**» are locked. This can only happen if the machine is jammed in a half way position either through the electric current being suddenly disconnected or through faulty operation, but the machine can be released and this dial restored to «0» by means of the milled screw described in paragraph «**K**».

i — These are the keys of the multiplying keyboard by which the figures of the multiplier are entered into the machine.

Electrical Machines are of assistance in all branches of commercial and technical calculations.

They are of inestimable service in all operations from effecting purchases to drawing up the balance sheet.

Problem No. 1 / *Purchase*

85 m cost $ 618.– at 4,86
plus £ 5.8.0 duty and £ 1.9.6 expenses

Cost price per m. = £ 1/11/6

Calculated in 30 seconds on the "Madas"

Problem No. 2 / *Selling price*

Cost price $ 45.50 / Profit 33 %

Selling price $ 67.91

Calculated in 15 seconds on the "Madas"

Problem No. 3 / *Calculation of Interest*

What is the interest on Dutch florins 5625.— in 45 days at 5¾ % ?

Interest: Dutch florins 39.85

Calculated in 30 seconds on the "Madas" without the use of any auxiliary table.

Problem No. 4 / *Invoices*

2 % discount on £ 6'775/8/–
What is the net balance and what is the amount of the discount?

Discount: £ 135/10/2

Net : £ 6639/17/10

Calculated in 20 seconds on the "Madas" in one operation only.

Problem No. 5 / *Statistics*

Cost of material	: Frs. 365.–	or ? % (65 %)
Milling	: Frs. 19.60	or ? % (3 %)
Planing	: Frs. 38.55	or ? % (7 %)
Nickelling	: Frs. 65.80	or ? % (12 %)
Erection	: Frs. 72.50	or ? % (13 %)
	Frs. 561.45	= 100 %

Calculated in 1 Min. and 15 Seconds on the "Madas"-Calculator.

Problem No. 6 / *Current Account*

	Debtors		Creditors
S	721.–	S	1085.–
	591.–		617.–
	777.-		920.–
	710.–		778.–
	1051.–		621.–
	1328.—		516.–
	545.–		308.–
	1293.–		—.–
	7016.–		4845.–
		Balance	2171.–
S	7016.–	S	7016.–

Calculated in 30 seconds on the "Madas"

Problem No. 7 / *Inventory*

Quantity	Cost each Material	/ Wages	Total Wages Material	/ Wages
312	–.36	1.60	112.32	499.20
96	—.29	3.25	27.84	312.–
28	1.05	1.96	29.40	54.88
35	—.41	1.27	14.35	44.45
17	—.92	2.38	15.64	40.46
			199.55	950.99

Calculated in 35-45 Seconds on the "Madas"

Problem No. 8 / *Pay day*

Piecework to the value of Frs. 109.– is divided between three workmen.

A has drawn	Frs. 23.40	Amount of piecework	Frs. 109.–
B has drawn	Frs. 30.45	already drawn	Frs. 72.41
C has drawn	Frs. 18.56		
	Frs. 72.41	Balance	Frs. 36.59

which will be divided as follows:

Balance of piecework for A	= Frs. 11.82
Balance of piecework for B	= Frs. 15.39
Balance of piecework for C	= Frs. 9.38
	Frs. 36.59

Calculated in 55 Seconds on the "Madas"

Whether in Trade or Industry
whether in a Bank or an Insurance Office,
whether for use on Railways or in Navigation,
for Public bodies or Private persons,
Architects, Civil Engineers or Surveyors,
etc. etc. etc.
everywhere

THE "MADAS" AFFORDS THE MOST EFFECTIVE ASSISTANCE

as is proved by the following examples:

Problem No. 9 144 pieces cost £ 63/10/—
1 piece costs ? (—/8/10)
37 pieces cost ? (16/6/4)
Calculated in 15 Seconds on the "Madas" in one operation.

Problem No. 10 4318.— Dutch florins
at 208.60 = ? Sw. Frs. = Sw. Frs. 9007.35
Calculated in 10 Seconds on the "Madas"

Problem No. 11 1 minus 32 : 73 = ? : 0,56165
Calculated in 15 Seconds on the "Madas" in one operation.

Problem No. 12 Price per ticket: Mks. 3.25
Last reading No. 2516 Previous reading No. 1308
How many tickets have been sold and what amount must have been received for same?
Answer: 1208 tickets are sold for Mks. 3926.—
Calculated on the "Madas" in one rapid combined operation in only 20 seconds.

Problem No. 13 $83 \times 75 \times 106$ cm. = ? 659850
Calculated in 15 Seconds on the "Madas"

Problem No. 14 $\sqrt[2]{26'478{,}3}$ = ? : 162,7215
Calculated on the "Madas" entirely without any algebraical knowledge in only 50 seconds.

Problem No. 15 $\sqrt[3]{512{,}0}$ = ? : 8
Calculated on the "Madas" in 30 seconds.

MAINTENANCE, GUARANTEE, SERVICE

The "Madas" has numerous devices which prevent inaccurate operation. The functioning of the keys and the transposing lever are so arranged, in relation to each other, that the latter remains locked until the operation commenced has been completed.

The entire amount of maintenance needed by the "Madas" consists of:

a) Occasional dusting of the working surface with a brush.

b) Oiling slightly every fortnight.

c) Keeping machine covered when not in use.

If it should ever happen that a "Madas" becomes blocked, in nine out of ten cases it can be cleared by means of this ribbed knob by turning same either backwards or forwards.

The factory gives with every "Madas" *a guarantee for one year*, as per existing guarantee certificate.

That is why a

"Madas"

is best!