PATENT SPECIFICATION

679,924

COMPLETE SPECIFICATION.

A Slide-Rule for Use in Betting.

We, HERMAN HAGEL, of 41. King Street, Blackpool, and CARL CONRAD HAGEL, of 33, Marlborough Road, Blackpool, both of British nationality, do hereby declare the
5 invention, for which we pray that a patent may be granted to us. and the method by which it is to be performed, to be particularly described in and by the following statement :—
10   This invention relates to a slide-rule for use in racecourse betting and its principal object is to provide a slide-rule form of instrument for the use of greyhound forecast backers at greyhound races.
15   The instrument, however, has other similar forecasting uses and could, for example, be adapted for use at horse race meetings.

It is based for its construction and operation on the presence of a forecast totalisator
20 at race meetings together with a win totalisator and/or information from bookmakers offering odds to the winner.

According to this invention. a slide-rule for use in racecourse betting in conjunction
25 with a forecast totalisator, comprises members movable with respect to one another. one of such members embodying a first logarithmic scale graduated to represent the total units invested on the forecast pool and
30 a second logarithmic scale graduated to represent a proportion of the values of the first scale, and another of such members comprising two oppositely extending logarithmic scales graduated to represent odds
35 and co-operative with said first and second scales.

According to another feature of the invention, a slide-rule for use in racecourse betting in conjunction with a forecast totalisator.
40 comprises a first rectilinear member embodying two logarithmic scales one of which is graduated to represent the total units invested on the forecast pool and the second of which is graduated to represent a pro-
45 portion of the values of the one scale, and a second rectilinear member in the form of a slide embodying two oppositely extending

[*Price 2s. 8d.*]

logarithmic scales graduated to represent odds and co-operative with the first two
50 scales.

According to a further aspect of the invention, a slide-rule for use in racecourse betting in conjunction with a forecast totalisator comprises a base provided along one edge
55 of a slot thereof with a first logarithmic scale graduated to represent the total units invested on the forecast pool, and along the other edge of the slot with a second logarithmic scale which is graduated to represent a
60 proportion of the values of the first scale so as to make allowance for contingencies, e.g. items such as legal charges, taxes and inadvertent error, and a slide mounted on the base and provided along its opposite edges
65 with two logarithmic scales extending oppositely to each other and one of which scales, co-operative with the first slot scale, is graduated to indicate the odds on offer from the bookmakers' board or from a totalisator
70 win-only pool for a win in respect of one of two chosen runners, this being the one considered to be the winner, and the other of which slide scales, co-operative with the second slot scale, is graduated to indicate
75 the odds on offer from the bookmakers' board or from a totalisator win-only pool for a win in respect of the other of the two chosen runners, this being the one considered as likely to be second, this latter
80 slide scale extending towards the lower value end of the second slot scale, and the other scale on the slide extending towards the higher value end of the other slot scale.

In order to enable the invention to be
85 readily understood, reference is directed to the accompanying drawing in which :—

Figure 1 is a plan view of one practical example of the slide-rule of the invention ;

Figure 2 is a section on the line II—II of
90 Figure 1 ;

Figure 3 is a diagram illustrating the derivation of the scale of the place half of the slide, and

Figure 4 is a view. to a smaller scale than

Figures 1 to 3, illustrating the use of the slide-rule.

The example shown in the drawings is of a slide-rule intended for greyhound race forecasting. It may be a very light and handy instrument only about six inches long so that it may be easily carried in the pocket. The device can be made wholly or partly of cardboard, wood, bone, ivory, the material known under the Registered Trade Mark " Ivorine," celluloid, vulcanite or metal. As shown in Figures 1 and 2, in construction it comprises a base 1 made of a lower layer 2 of thin material, two strips 3, 4 of thin material which define the opposite sides of the slot 5 of the rule and extend outwardly to the edges of the lower layer 2 and two strips 6, 7 spacing the first-mentioned strips 3, 4 from the lower layer 2 and narrower than they are, so as to form a shallow T-shaped or undercut recess in the base. In this recess another strip of material 8 constituting the " slide " is accommodated. The parts 2, 6, 3 and 2, 7, 4 are suitably stuck together by an appropriate adhesive.

In the following description, it will be assumed for convenience that, as shown in Figure 1, the device is in a vertical position or placed on a support in that fashion with respect to the eye. Marked on the strip 4 on the right-hand side of the slot 5 is a first logarithmic scale 10 starting not quite half-way down it and commencing with the figure 1000. Following figures may thereafter be 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000, 7000, 8000, 9000, 10000, 15000 and so on to 40,000, or any intermediate figures could be added as desired. With this scale 10 and the figures thereof are to be read the total units as shown on the totalisator forecast indicator board. The scale, of course, could be extended upwards if desired and naturally for longer rules the scale may be further extended.

On the strip 3 on the left-hand side of the slot 5 is a second logarithmic scale 11 of similar nature but not fully extended in the upper values compared with the scale 10. As shown by the numbering on the scales, the scale 11 is such that its graduations represent only a proportion of the values of the first scale 10. The purpose of this, as will be hereinafter more fully explained, is to allow for such things as the 6% legally deducted by the totalisator and also the 10% turnover tax imposed by the Government (or any small increase or decrease thereof which may be imposed in the future), as well as allowing a percentage error, which inadvertently will occur due to the time factor of operating the device, while at the same time still providing a percentage of profit for the operator. In the present instance, the total of these allowances is assessed at $33\frac{1}{3}\%$ on turnover and thus the left-hand slot scale is graduated so that the figures thereon are a two-thirds proportion of those which are shown, or may be included, opposite them on the right-hand slot scale 10. This left-hand scale 11 may extend substantially from top to bottom of the slot 5 as shown, starting suitably at 60, and thereafter being marked 70, 80, 90, 100, 150, 200, and so on to 500, 600, 700, 800, 900, 1000, 1500 and so on to 5000, then by 1000's to 10000, and then by 5000's to 25000, or any intermediate figures could be added as in the case of the first slot scale 10.

The slide 8 is marked about centrally with a transverse line 12 above and below which are respectively marked the words PLACE and WIN. On each side of this line 12 is a logarithmic scale and for convenience the part of the slide above this line will be termed the place half and that below the line the win half.

The scales on the slide represent odds and those odds indicated on the scale 13 on the win half are $1/_{2000}$th of the figures on the right-hand slot scale 10. Odds marked on the win half, as shown, may be 1—1, 2—1, and so on down to 20—1, with intermediate markings at 6—4, 5—2, 7—2, 9—2, 100—8, 100—7, and 100—6. If the slide be moved to place 1—1 on the win half against 2000 on the right-hand slot scale, 2—1 will coincide with 4000 on the latter scale and so on, showing the above $1/_{2000}$th relationship.

The positions of the odds figures indicated on the scale 14 on the place half of the slide 8 are obtained from the right-hand slot scale 10 as follows :—Assume the slide to be inserted upside down with relation to the scale 10 and alongside it as shown in Figure 3 with the zero of the scale 14 opposite the 1000 mark on scale 10. The zero of the scale 14 is left unmarked on the instrument to avoid confusion but it coincides with the odds figures 1—1 on the scale 13. Furthermore, assume the 1000 division on the scale 10 to represent log 1, i.e., 0. Then 1—1 on the place scale 14 would be marked off at log 2 distance from the 1000 division (i.e. it would be opposite 2000 on the right-hand slot scale), 2—1 at log 3 distance from the 1000 division (i.e. opposite 3000 on the right-hand slot scale), and so on, i.e. the successive odds relative to 1 would always be a number one less than the log of the distance from the 1000 division of the right-hand slot scale 10. As shown in Figure 1, the odds figures marked on the place scale may be 1—1, 2—1 and so on to 10—1, and then 20—1, which may be the final figure, with intermediate odds at 6—4, 5—2, 7—2, 9—2, 100—8, 100—7, and 100—6. As shown in Figure 3, 1—1 would be opposite 2000 on scale 10, 2—1 opposite 3000, 3—1 opposite 4000, 4—1 opposite 5000, 5—1

opposite 6000 and so on, 20—1 being opposite 21000 on scale 10.

The principle involved in the instrument may be described as follows :—

Knowing the odds against any dog in a given race to be first, a mathematical formula has been derived for the chance of any one of those dogs to be second with any named dog to be first. This formula is $\dfrac{1}{a\,(b+1)}$ and it represents the chance of the event happening. In the formula, " a " represents the win odds against the dog chosen to be the winner and " b " indicates the win odds against the dog chosen to be second or " place ".

It is, of course, impossible on the common slide-rule to divide a figure by $(x+1)$ and as it is necessary to do such an operation to arrive at the answer to the above-mentioned formula, the principle has been adopted, in the design of the present slide-rule, of putting the odds on the place half of the slide 8 forward one point (i.e. the +1 of the formula), as will be understood. This is the reason why zero (not shown) on the place half of the slide 8 is regarded as opposite 1000 on the right-hand slot scale 10, in evolving the scale on the place half of the slide, cf. Figure 3, as already discussed. The slide scales 13, 14, as shown in Figure 1, extend oppositely to each other. The zero for the win half scale 13 is at 1—1 odds. The transverse line 12 aforesaid is not a zero line, and is only used to indicate to the operator that the odds shown below this line refer to the dog chosen to win and that the odds shown above such division line refer to the dog chosen to be second or " place ".

The above formula multiplied by the total units invested on the forecast pool and shown on the totalisator forecast indicator board will give the number of units which would be invested on that particular forecast combination to correspond equally and in balanced mathematical proportion with the chance of the event happening. Representing the total units by P, there is thus obtained the formula $\dfrac{P}{a\,(b+1)}$. This formula, being continuous division, could be worked out by logarithms on a slide-rule having both scales alongside the slot the same, by setting " a " to the total number of units invested on the forecast pool on one of such scales and reading off against " b " on the other slot scale. However, as the left-hand slot scale 11 in the illustration is marked only two-thirds of the right-hand slot scale 10 as and for the purpose already indicated, only two-thirds of the correct answer in units will be given in reading off against " b " on scale 11 and consequently the formula

to be used finally becomes two-thirds of the formula $\dfrac{P}{a\,(b+1)}$, namely $\dfrac{2P}{3a\,(b+1)}$, and this latter formula is the one which the slide rule of the invention is able to work out in only one motion.

It will be noted that " a " and " b " represent the respective win odds within the limits from evens to 20—1. However, it will be understood that these limits are only the ones appearing on the device illustrated and are dictated solely by the device being limited in length. As already indicated, however, the slide-rule of the invention may be of greater length. This would allow of wider odds limits and theoretically, if the slide-rule could be extended in length to infinity there would be no limits whatsoever to the odds and the formula $\dfrac{2P}{3a\,(b+1)}$ would still be equally effective.

The operation of the instrument or slide-rule is as follows :—

Take any two greyhounds running in the same race at a Greyhound Meeting. These dogs run from traps which may be referred to as Trap No. 1 and Trap No. 2.

It is desired to check whether Trap No. 1 to be first, combined with Trap No. 2, to be second (that is Forecast Combination Trap 1 and 2), is an advisable bet.

First obtain from the bookmakers' board or the totalisator win-only pool the odds on offer for a win over these two dogs taken individually. Assume that they are :—

Trap No. 1, 3—1 against.
Trap No. 2, 6—1 against.

Secondly, by use of the instrument and as indicated by Figure 4, place the odds 3—1 shown on the scale 13 on the win half of the slide 8 against the total units, as shown on the totalisator forecast indicator board, to the nearest round figure on the right-hand slot scale 10. In this example, say 30,000 units.

It will be noticed, of course, that only illustrative parts of the various scales are shown in Figure 4.

Thirdly, read off on the left-hand slot scale 11 the figure indicated alongside 6—1 on the scale 14 on the place half of the slide 8. The figure indicated will be 950 as shown.

This figure is the " key " to forecast combination 1 and 2. If the units on this particular combination on the forecast indicator board are less than this " key " figure or the same, the bet is advisable, otherwise this particular forecast combination is shown on a mathematical basis by the slide-rule not to be a worth-while bet in the light of the forecast proving correct.

It is to be noted that this " key " figure takes into account the allowances (assessed

in the present instance at $33\frac{1}{3}\%$) for totalisator percentage deduction, turnover tax and other profit-reducing factors above referred to.

In further explanation, it may be mentioned that the odds when a combination is being considered are different from when only a single dog is in question. In the case of a combination, the two sets of odds are inter-dependent so that, in the combination being considered, the odds against

$$\text{(applying the formula} \quad \frac{1}{a\,(b+1)} \quad \text{aforesaid)}$$

$$\text{are} \quad \frac{1}{3\,(6+1)} = \frac{1}{21} = 20:1 \text{ which for 30,000}$$

total units gives what may be termed a "gross key" figure of $30000/21 = 1429$.

However, applying the $33\frac{1}{3}\%$ for allowances aforesaid, this "gross key" figure of 1429 is reduced by one-third, that is to the "net key" figure of 952 which substantially corresponds to the above "key" to the forecast combination 1 and 2 shown on the scale 11.

If, for purposes of comparison, a higher "key" figure be assumed, say 1000, it would represent a larger "gross key" figure, namely 1500 in the case in question, i.e. odds of 1 in 20 or 19 : 1 against which is less than the mathematical odds of 20 : 1 aforesaid for the particular combination under consideration and therefore unfavourable, i.e. compared with 20 : 1 aforesaid.

Similarly every forecast combination in its turn can be checked by the operator, i.e. 1 and 2, 1 and 3, 1 and 4, 1 and 5, 1 and 6 ; 2 and 1, 2 and 3, 2 and 4, 2 and 5, 2 and 6 ; 3 and 1, etc., etc.

Thus, the operator, by aid of the instrument, is able to seek out throughout the whole of the combinations all the advisable bets and the instrument clearly indicates those combinations to leave alone.

When the instrument is set according to instructions the operator is automatically guided whether to make a bet over any specific forecast combination he chooses by comparison of the key figure indicated by the instrument with that shown on that particular selected forecast combination on the forecast totalisator board.

The instrument can be used for any Greyhound Track where a forecast totalisator is in operation together with a win totalisator or/and bookmakers are represented at the meeting offering odds to the winner.

It is effective regardless of the number of runners. Most tracks have five or six runners, some only four runners.

The instrument will be equally effective at Horse Race meetings where a totalisator forecast indicator board is present to show to the public the units backed on each individual forecast combination and the total units invested. At the present time this is not possible, although forecast betting does take place at horse race meetings. It is believed that at some future date a complete totalisator forecast indicator board giving all particulars will be introduced at horse race meetings owing to the popularity of this form of betting and in that event the advantage of the present invention will be apparent.

It will be understood that the invention is not restricted to the particular construction of slide-rule illustrated in the drawing, but that modifications within the scope of the appended claims are possible without departing from the invention. For example, instead of the instrument being of straight slide-rule form, similar scales could be incorporated in a slide-rule of rotary-disc construction.

What we claim is :—

1. A slide-rule for use in racecourse betting in conjunction with a forecast totalisator, comprising members movable with respect to one another, one of such members embodying a first logarithmic scale graduated to represent the total units invested on the forecast pool and a second logarithmic scale graduated to represent a proportion of the values of the first scale, and another of such members comprising two oppositely extending logarithmic scales graduated to represent odds and co-operative with said first and second scales.

2. A slide-rule for use in racecourse betting in conjunction with a forecast totalisator, comprising a first rectilinear member embodying two logarithmic scales one of which is graduated to represent the total units invested on the forecast pool and the second of which is graduated to represent a proportion of the values of the one scale, and a second rectilinear member in the form of a slide embodying two oppositely extending logarithmic scales graduated to represent odds and co-operative with the first two scales.

3. A slide-rule for use in racecourse betting in conjunction with a forecast totalisator, comprising a base provided along one edge of a slot thereof with a first logarithmic scale graduated to represent the total units invested on the forecast pool, and along the other edge of such slot with a second logarithmic scale which is graduated to represent a proportion of the values of the first scale so as to make allowance for contingencies, e.g. items such as legal charges, taxes and inadvertent error, and a slide mounted on the base and provided along its opposite edges with two logarithmic scales extending oppositely to each other and one of which scales, co-operative with the first slot scale, is graduated to indicate the odds on offer

from the bookmakers' board or from a totalisator win-only pool for a win in respect of one of two chosen runners, this being the one considered to be the winner, and the other of which slide scales, co-operative with the second slot scale, is graduated to indicate the odds on offer from the bookmakers' board or from a totalisator win-only pool for a win in respect of the other of the two chosen runners, this being the one considered as likely to be second, this latter slide scale extending towards the lower value end of the second slot scale, and the other scale on the slide extending towards the higher value end of the first slot scale.

4. A slide-rule according to any one of the preceding claims, wherein the figures on the second scale on the base or the one or first member are marked down to two-thirds of the values on the other scale on such base or member.

5. A slide-rule according to any one of the preceding claims, wherein the values on one odds scale, representing second runners, are put forward with respect to those on the other odds scale representing the winners.

6. A slide-rule according to any one of Claims 1 to 3 and operative according to the formula $\dfrac{1}{a\,(b+1)}$ wherein " a " represents the win odds against a runner chosen to be first and " b " indicates the win odds against a runner chosen to be second.

7. A slide-rule according to Claim 6 and operative to work out the formula $\dfrac{2P}{3a\,(b+1)}$ wherein P represents the total number of units on the forecast pool, " a " represents the win odds against a runner chosen to be first and " b " represents the win odds against a runner chosen to be second.

8. A slide-rule for use in racecourse betting constructed and operative substantially as described with reference to the accompanying drawing.

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PROVISIONAL SPECIFICATION.

A Slide-Rule for Use in Betting.

We, HERMAN HAGEL, of 41, King Street, Blackpool, and CARL CONRAD HAGEL, of 33, Marlborough Road, Blackpool, both of British nationality, do hereby declare the nature of this invention to be as follows :—

This invention relates to a slide-rule for use in betting and its primary object is to provide a slide-rule form of instrument for the use of greyhound forecast backers at greyhound races.

The instrument, however, has other similar forecasting uses and could, for example, be adapted for use at horse race meetings.

It is based for its construction and operation on the presence of a forecast totalisator at race meetings together with a win totalisator and/or information from bookmakers offering odds to the winner.

According to this invention, a slide-rule form of betting or like forecasting device comprises a slotted base provided along one edge of a slot thereof with a logarithmic scale representing the total units invested on a forecast pool, and along the other edge of the slot with a second and similar scale the indications on which are marked down to an extent making allowance for contingencies, e.g. items such as legal charges or taxes and unavoidable error, and a slide operative in the slot and provided along its opposite edges with two scales extending oppositely to each other and one of which scales, co-operative with the first-mentioned slot scale, is marked to indicate the odds on offer from the bookmakers' board or a totalisator win only pool for a win in respect of one of two chosen runners, this being the one of the two chosen to be first, and the other of which slide scales, co-operative with the second slot scale, is marked to indicate the odds on offer from the bookmakers' board or a totalisator win only pool for a win in respect of the other of the two chosen runners, this being the one chosen to be second or " placed," this latter slide scale extending towards the lower value end of the second slot scale, and the other scale on the slide extending towards the higher value end of the other slot scale.

One practical example of the device in accordance with the present invention is intended for greyhound forecasting. It may be a very light and handy instrument only about six inches long so that it may be easily carried in the pocket. The device can be made wholly or partly of cardboard, wood, bone, ivory, the material known under the Registered Trade Mark " Ivorine," celluloid, vulcanite or metal. In construction, it comprises a base made of a lower layer of thin material, two strips of thin material which define the opposite sides of the slot of the rule and extend outwardly to the edges of the lower layer and two strips spacing the first-mentioned strips from the lower layer and narrower than they are

so as to form a shallow **T**-shaped or undercut slot in the base. In this slot another strip of material constituting the "slide" is accommodated.

In the following description, it will be assumed for convenience that the device is in a vertical position or placed on a support in that fashion with respect to the eye. On the right-hand side of the slot is a logarithmic scale starting not quite half-way down it and commencing with the figure 1000. Following figures may thereafter be 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 6000, 7000, 8000, 9000, 10,000, 15,000 and so on to 40,000, or any intermediate figures could be added as desired. With this scale and the figures are to be read the total units as shown on the totalisator forecast indicator board. The scale, of course, could be extended upwards if desired and naturally for longer rules the scale may be further extended.

On the left-hand side of the slot is a scale of similar nature but it is not a fully extended one and it is marked down to allow for such things as the 6% legally deducted by the totalisator and also the 10% turnover tax imposed by the Government (or any small increase or decrease thereof which may be imposed in the future), as well as allowing a percentage error which inadvertently will occur, due to the time factor of operating the device, and at the same time still provide a percentage of profit for the operator. In the present instance, the total of these allowances is assessed at $33\frac{1}{3}\%$ on turnover and thus the figures on the left-hand slot scale are made two-thirds of those which are, or should be shown, on the right-hand slot scale. This left-hand scale may extend substantially from top to bottom of the slot, starting suitably at 60, and thereafter being marked 70, 80, 90, 100, 150, 200, and so on to 500, 600, 700, 800, 900, 1000, 1500 and so on to 5000, then by 1000's to 10,000, and then by 5000's to 25,000, or any intermediate figures could be added as in the case of the first slot scale.

The slide is marked about centrally with a transverse division line above and below which are respectively marked the words PLACE and WIN. Each side of this line is a logarithmic scale and for convenience the part of the slide above this line will be termed the place half and that below the line the win half.

The scales on the slide represent odds and those odds indicated on the win half are $1/2000$th of the figures on the right-hand slot scale. Odds marked on the win half may be 1—1, 2—1, and so on down to 20—1, with intermediate markings at 6—4, 5—2, 7—2, 9—2, 100—8, 100—7, and 100—6. If the slide be moved to place 1—1 on the win half against 2000 on the right-hand slot

scale, 2—1 will coincide with 4000 on the latter scale and so on.

The positions of the odds figures on the place half of the slide scale are obtained from the right-hand slot scale as follows :— 70 Assume 2000 on the right-hand slot scale to be log 1, i.e. 0. Then 1—1 on the place scale is at log 2 (i.e. it would be opposite 2000 on the right-hand slot scale), 2—1 is at log 3 (i.e. opposite 3000 on the right-hand 75 slot scale), and so on, i.e. always a number one less than that opposite on the right-hand slot scale. The odds figures marked on the place scale may be 1—1, 2—1 and so on to 10—1, and then 20—1, which may be the 80 final figure, with intermediate odds at 6—4, 5—2, 7—2, 9—2, 100—8, 100—7, and 100—6.

The principle involved in the instrument may be described as follows :—

Knowing the odds against any dog in a 85 given race to be first, a mathematical formula may be derived for any one of those dogs to be second with any named dog to be

first. This formula is $\dfrac{1}{a\,(b+1)}$ and it

represents the chance of the event happening. 90 In the formula, a represents the win odds against the dog chosen to be first and b indicates the win odds against the dog chosen to be second.

It is, of course, impossible on the common 95 slide-rule to divide a figure by $(x+1)$ and as it is necessary to do such an operation to arrive at the answer to the above-mentioned formula, the principle has been adopted, in the design of the device of the invention, 100 of putting the odds on the place half of the slide forward one point (i.e. the $+1$ of the formula), as will be understood. Zero on the place half of the slide is thus put opposite 1000 on the right-hand slot scale, in 105 evolving the scale on the place half of the slide. The slide scales extend oppositely. The zero for the win half scale is at 1—1 odds. The transverse division line aforesaid is not a zero line, and is only used to 110 indicate to the operator that the odds shown below this line refer to the dog chosen to win and that the odds shown above such division line refer to the dog chosen to be second or " place ".   115

The above formula multiplied by the total units invested on the forecast pool will give the number of units which should be invested on that particular forecast combination to correspond equally and in balanced 120 mathematical proportion with the chance of the event happening. This formula, being continuous division, is worked out by logarithms on the slide rule by setting a to the total number of units invested on the 125 forecast pool on the right-hand slot scale, whereupon two-thirds of the correct answer in units would be given by reading off against

b on the left-hand slot scale. The latter scale is only marked two-thirds of the right-hand scale as already indicated.

The operation of the instrument or slide-rule forecaster is as follows :—

Take any two greyhounds running in the same race at a Greyhound Meeting. These dogs run from traps which may be referred to as Trap No. 1 and Trap No. 2.

It is desired to check whether Trap No. 1 to be first, combined with Trap No. 2, to be second (that is Forecast Combination Trap 1 and 2), is an advisable bet.

First obtain from the bookmakers' board or the totalisator win only pool the odds on offer for a win over these two dogs taken individually. Assume that they are :—

Trap No. 1, 3—1 against.
Trap No. 2, 6—1 against.

Secondly, by use of the instrument, place the odds 3—1 shown on the win half of the slide against the total units, as shown on the totalisator forecast indicator board, to the nearest round figure on the right-hand slot scale. In this example, say 30,000 units.

Thirdly, read off on the left-hand slot scale the figure indicated alongside 6—1 on the place half of the slide. The figure indicated will be 950. .

This figure is the " key " to forecast combination 1 and 2. If the units on this particular combination on the forecast indicator board are less than this " key " figure or the same, the bet is advisable, otherwise this particular forecast combination is not to be backed.

Similarly every forecast combination in its turn can be checked by the operator, i.e. 1 and 2, 1 and 3, 1 and 4, 1 and 5, 1 and 6 ; 2 and 1, 2 and 3, 2 and 4, 2 and 5, 2 and 6 ; 3 and 1, etc., etc.

Thus, the operator, by aid of the instrument, is able to seek out throughout the whole of the combinations all the advisable bets and the instrument clearly indicates those combinations to leave alone.

When the instrument is set according to instructions the operator is automatically guided whether to make a bet over any specific forecast combination he chooses by comparison of the key figure indicated by the instrument with that shown on that particular selected forecast combination on the forecast totalisator board.

The instrument can be used for any Greyhound Track where a forecast totalisator is in operation together with a win totalisator or /and bookmakers are represented at the meeting offering odds to the winner.

It is effective regardless of the number of runners. Most tracks have five or six runners, some only four runners.

The instrument will be equally effective at Horse Race meetings should at some future date a forecast indicator board be introduced showing to the public the units backed on each individual forecast combination and the total units invested. At the present time this is not possible, although forecast betting does take place at horse race meetings. It is believed that at some future date a complete forecast indicator board giving all particulars will be introduced at horse race meetings owing to the popularity of this form of betting and in that event the advantage of the present invention will be apparent.

Dated the 20th day of September, 1949.
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77, Chancery Lane, London, W.C.2.
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679,924 COMPLETE SPECIFICATION

I SHEET   This drawing is a reproduction of
the Original on 'a reduced scale.

FIG. 1.

FIG. 4.

FIG. 3.

FIG. 2.