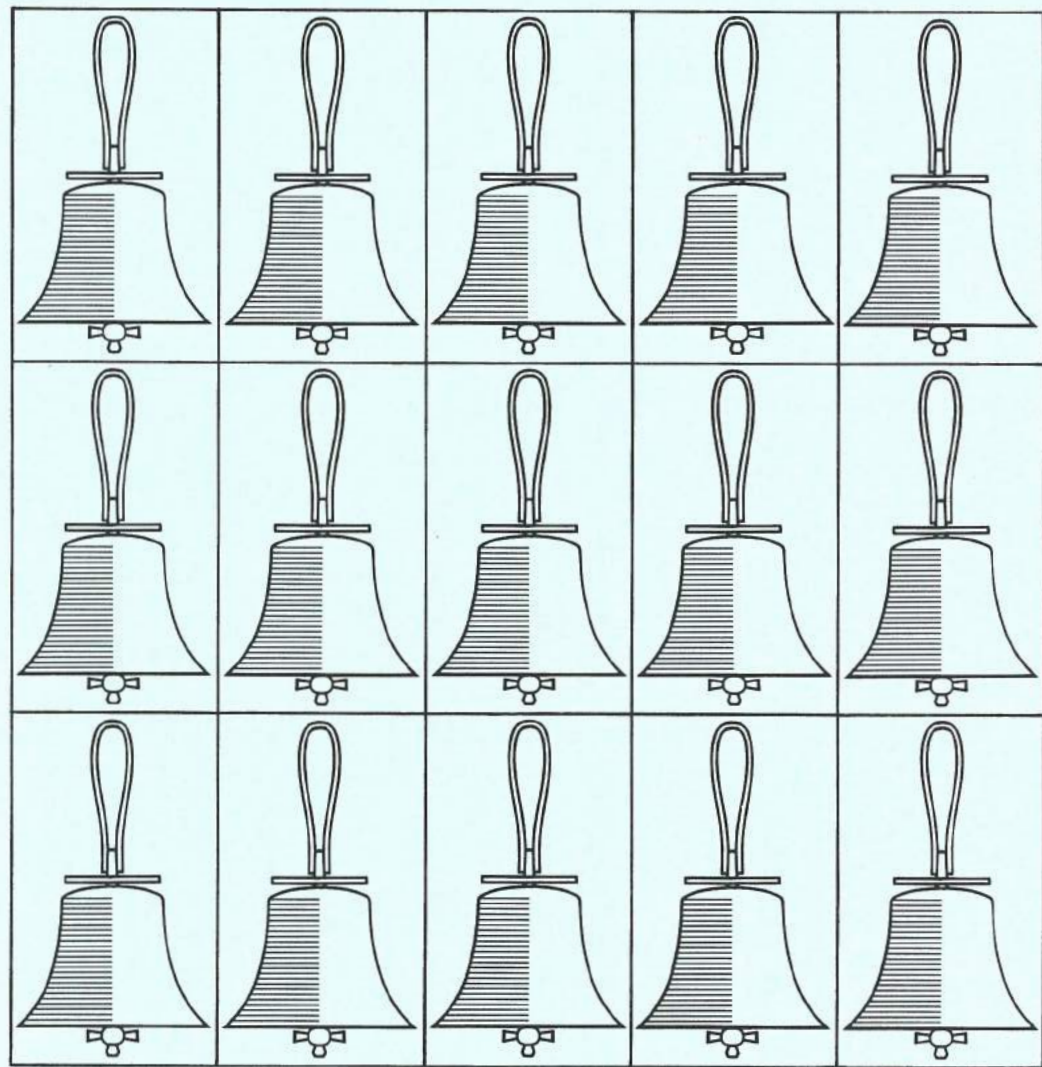


Change Ringing on Handbells

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Change Ringing on Handbells

By C. W. Woolley

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NOTE

In some blocks of figures the paths of certain bells are indicated by black type, in others internal places are so shown. Readers are advised to draw lines along these paths for themselves, and to mark the internal places.

CHANGE RINGING ON HANDBELLS

This book is intended as a guide to double-handed change ringing on handbells. It makes no claim to be a treatise on the art of ringing as a whole, being concerned only with its application to handbell ringing ; so the beginner who has not already obtained a working knowledge of the rudiments of the art in the tower is advised to study in conjunction any of the well-known works on the subject, such as "Rope-sight". In general, knowledge of the meanings of the more common technical terms will be assumed, excepting those which are used exclusively in handbell ringing. Further, to avoid making the book unnecessarily large, certain methods referred to are not included ; for these, "Standard Methods" or the more complete Central Council collections may be consulted.

There is nothing to prevent change ringing from being learned on handbells without any previous experience in tower-bell ringing. Quite a number of ringers have started in this way. There is no doubt that the accurate striking and rhythm which can easily be obtained with practice on handbells helps to improve striking on tower bells. The ringing of single handbells after the first lesson is not recommended. It may be found of some use for learning new methods for tower-bell ringing, or for the few who find the idea of plain-hunting extremely difficult, but it is of little or no value after that towards learning to ring double-handed. There is no reason why handbell ringing should not be learned practically from the start by ringing a coursing pair, and this is the usual procedure. It is of no value whatever for ringers who can already ring changes in the tower to spend time on single-handed handbell ringing.

As in tower-bell ringing, the initial difficulties are by far the worst. Practice and perseverance are necessary, but once the essential ideas are grasped progress may be surprisingly easy and rapid. It is most important that handbell ringing should be tackled in the right way from the very beginning, and a word of warning is necessary for those who have already learned on tower bells. People often fail to appreciate that there is a very definite difference in the method employed to guide a pair of handbells from that employed to guide one bell ; and unless this is understood the accomplished ringer may flounder as badly as the novice. It is quite useless to attempt to split the mind into two and follow the work of each pair separately. The average mind is incapable of maintaining two separate chains of thought simultaneously, and no amount of mental effort will make this possible. A ringer may achieve a certain amount in this way, but he will reach his limit far sooner than he would if he employed the correct method. A tower-bell ringer may find that he can ring the tenors to even-bell methods where they are in course, or to odd-bell methods such as

Grandsire or Stedman, and so may fail to grasp the whole nature of the problem and cease to make any further progress. Unfortunately many ringers start handbell ringing in this way. Previous experience can be very useful, if properly applied, but may be a handicap. It is clear that if the pair are rung by following the separate paths of the bells the difficulty when they are separated (i.e., not in course) must become considerable, particularly when more advanced methods are attempted. The mental strain may well prove too great in touches of any length, and will seriously hinder the attainment of good striking and rhythm, which only comes with smoothness and ease. The right system aims at avoiding mental strain and, as the ringer progresses, at making the actual performance easier in spite of the more difficult work encountered, so that the mind is left free to concentrate on correctness and precision. If the system is followed and practised properly no special faculties are needed which cannot easily be developed by the ringer of average intelligence.

Before starting changes it is necessary to obtain complete mastery and ease in ringing the bells. The straps should be held securely but not tightly in the fingers, with the first finger against the cap. If the ringer is liable to blisters—a common complaint when beginning—the first finger may be placed round the cap.* The strokes, “hand-stroke” (up) and “back-stroke” (down), corresponding to the same on tower bells, are made by a movement of the forearm and wrist, and the action should be as easy and natural as it is possible to make it. Actual striking of the bell is produced by the slight check at the finish, imparted, at backstroke, by the wrist, and at handstroke by catching the cap on the thumb ; for the rest of the time the thumb should be held away from the cap. It is the check which causes the striking, and not the use of a forceful or jerky action. Be easy ; this is essential to the attainment of good rhythm.

It is most important that a simple action be cultivated. The bells should be rung straight up and down and not flourished about. Peculiarities of style do not help, and are very liable to confuse others with whom one is ringing. The bells should come to rest between each stroke, and be held in such a position that the clapper rests against the proper side. Avoid using strokes which are either excessively long or unusually short. Do not hit the bells too hard ; no pair should sound out above the rest.

A good beat, or rhythm, is essential to all good ringing. This is a matter of even spacing and correct leading. Nearly all ringing is now done with an open hand-stroke lead ; that is, an interval is left sufficient for one blow between the last, or covering, bell at backstroke, and the first, or leading, bell at the next handstroke.

* On some sets of handbells the rivets securing the straps project and are not properly smoothed off ; it is well to notice this and hold the bells with this end of the rivets uppermost.

The backstroke lead is made without interval. Thus on six bells twelve consecutive evenly spaced blows would be struck at hand and back, followed by a short interval before the commencement of the next row at handstroke. The effect is thus : 123456123456—123456123456, etc. Further, the covering bell may hold off very slightly at hand to stress the close backstroke lead, and close in very slightly at back to open the handstroke. On no account should it hold off or drag at backstroke ; doing this reduces the handstroke interval and destroys the rhythm. Certainty in leading correctly is all important to good rhythm. The rule is "Slow at hand, quick at back." Great attention should be paid to this and precision in striking throughout, even when struggling with the beginnings of change ringing.

The first part of this book is intended for those who have done little or no handbell ringing, whether they have had previous experience in the tower or not. The system described is the one generally accepted by handbell ringers as essential if a correct start is to be made.

The second part deals with the ringing of more advanced methods ; the skill required for these is developed through practice in the easier methods, and the system is a continuation of that employed at the beginning.

The all-important fact to recognise at the start is that *the two bells must be made to help each other, and must be rung in each change by a single effort of thought*. This cannot be done merely by knowing the path of one and leaving the rest to chance ; the paths of the two bells must be so combined that they are rung with no more mental effort than is required for the ringing of one. This is the only way which offers any hope of success with the more difficult methods.

Change ringing demands that no bell should move more than one place at a time, and that no row should occur more than once. The bells therefore change places in pairs. The simplest example is afforded by the plain hunting course, here given on six bells :—

123456
214365
241635
426153
462513
645231
654321
563412
536142
351624
315264
132546
123456

In the first two rows of this each pair changes:—

123456
x x x
214365

We cannot now change over the same pairs again without coming back into rounds; so the first and last bells remain still and the pairs between them change:—

214365
x x
241635

The next time all three pairs change, and so on:—

241635
x x x
426153

This is the basis of all methods of change ringing, imposing, as it does, the simplest possible course, best illustrated by the path of the treble: up from the front (or lead) to the back, “lie” (two blows at the back), down and lead (two blows at the front). Each bell in the plain hunting course performs the same work, but starts at a different point. A single handbell may be used to illustrate and teach this idea of plain hunting.

(For a fuller explanation of plain hunting, and how it should be done on tower bells—much of which will be found useful on handbells—the reader is referred to “Rope Sight”.)

Changes are started on the upstroke, or handstroke, corresponding to the handstroke in tower-bell ringing. The best way to start learning to hunt on handbells is to *count one’s place* up and down, counting 1-2-3-4-5-6 and laying stress on the position one’s own bell occupies in the particular row. Thus, to hunt the treble in the plain hunting course on six bells, one would count as follows:—

Plain hunting course.	Count (for treble).
123456	1-2-3-4-5-6
214365	1-2-3-4-5-6
241635	1-2-3-4-5-6
426153	1-2-3-4-5-6
462513	1-2-3-4-5-6
645231	1-2-3-4-5-6
654321	1-2-3-4-5-6
563412	1-2-3-4-5-6
536142	1-2-3-4-5-6
351624	1-2-3-4-5-6
315264	1-2-3-4-5-6
132546	1-2-3-4-5-6
123456	1-2-3-4-5-6

Most people will, in a matter of a very few minutes, not only understand the idea of plain hunting but be able to count their way up and down in a hunting course with a single bell, after which they should proceed to ringing a coursing pair in a plain hunt. So far we have used "minor" (i.e., six-bell changes) to illustrate plain hunting. This number is quite sufficient, and is by far the best on which to start. It is much easier for the learner to count, and less confusing than the higher numbers.

THE POSITIONS.

The "position" of a pair of bells consists of their combined paths, and is best illustrated by lined diagrams. In Minor there are three plain hunting positions, and three only. These are :—

(i) The 5-6, or coursing, position, in which the pair move up and down separated by one other bell only. The pair meet and cross over in 1-2 and 5-6. In the plain hunting course both 1-2 and 5-6 are ringing this position.

(ii) The 2-3 position, as rung by 2-3 and 4-5 in the plain hunting course. In this position the pair meet and cross over in 2-3 and 4-5; when not actually meeting and separating they are coursing with three other bells in between them.

(iii) The 3-4 position. In this the pair meet and cross over in 3-4. It will be seen that they move in opposite directions, i.e., when one is going up the other is coming down; and that, when one is leading the other is lying. This position, for obvious reasons, has been called "symmetrical", or the position of "opposites" (also "being at opposites", etc.).

5-6 Position.	2-3 Position.	3-4 Position.
1234 56	123456	123456
2143 65	214365	214365
2416 35	241635	241635
4261 53	426153	426153
4625 13	462513	462513
6452 31	645231	645231
6543 21	654321	654321
5634 12	563412	563412
5361 42	536142	536142
3516 24	351624	351624
3152 64	315264	315264
1325 46	132546	132546
1234 56	123456	123456

These positions are the basis of all handbell ringing, and it is absolutely necessary that they should be understood and thoroughly mastered.

We will first consider the coursing position, as this is the least difficult of the three, and refer to the diagram of 5-6 given above.

At the start the pair cross over and strike 6-5, since the 6th starts to come down while the 5th is still going up. Notice that this is done over four other bells ; that is, in rounds and the first row of changes four bells strike in front of 5-6. The 6th then goes down into fourth's place, or "4th's" (other three other bells) as the 5th completes its whole pull behind, and this allows one other bell to come in between the pair. Now, as soon as the pair have crossed over in 5-6, concentrate on the 6th and hunt it down to the front ; this is done by counting, in exactly the same way that the treble is hunted down in the plain hunt. As the 6th is hunted down the 5th is brought down behind it, allowing interval for one other bell, and one only, to strike in between the pair. It is unnecessary to pick out the bell which comes in between in any particular row, for if the 6th is hunted correctly the position of the 5th is determined automatically.

The 6th is known as the "leading bell" on the way down, since it strikes before the 5th in every row. The 5th is the "after bell". (We must not, however, confuse the "leading bell" with the bell which is leading, i.e., striking first, as the treble does in rounds.)

When the 6th arrives at the front it leads a whole pull, and at the second blow of this the 5th has reached second's place, so the pair strike next to each other. (This is known as "meeting in 1-2".) They then cross over, and the 5th leads its whole pull ; at its second blow at lead one other bell has again come in between the pair, which are hunted up to the back with one bell in between in just the same way that they were hunted down. The only difference is that the 5th is now the leading bell, so we concentrate on the 5th and bring the 6th in at the correct interval after it. At the back the pair meet in 5-6.

An added help in hunting up is that the 5th will strike over the bell which came in between the pair in the preceding row. This is merely the well-known rule from tower-bell ringing, "Follow the bell that follows you".

Notice that when hunting down the pair have to be rung more quickly than when hunting up, since fewer other blows are struck in between the after bell in one row and the leading bell in the next.

The position of the following, or after bell, will be determined in each row by that of the leading bell. It is therefore most important that the leading bell should be placed with absolute certainty by counting, and this method must be adopted rigidly at the start. Further, the after bell must be placed automatically from the position of the leading bell ; on no account should the mind be split and the attention taken away from the essential task of hunting the leading bell correctly.

After some practice at plain hunting, using the method of counting, it will be noticed that the 6th follows another bell at a one-bell interval on its way down to lead in exactly the same way

that the 5th follows the 6th. This bell (the 4th in the plain hunting course) is called the 6th's "course bell". It is important to gain the ability to pick out and follow one's course bell, but this is not necessary at the very beginning.

The coursing position should be practised until it becomes easy and automatic, whatever the order in which the other bells are met. It will be found then that active counting can be given up; but it should *not* be dispensed with until all three positions have been thoroughly mastered. It is then *necessary* to give up counting, for it is quite impossible to use it on the higher numbers except at very slow speeds, and it prevents all other chains of thought (for instance, no ringer who had to count his own pair could conduct).

Notice that 1-2 follow the same position in the hunting course; and the beginner should take this pair as well. He should also ring hunting courses starting from rows other than rounds, so that the bells are met in a different order. The hunting courses should be rung through several times without stopping, to show that the positions are "continuous"—that is, the 5-6 position does not necessarily end when the pair meet in 5-6, nor does it necessarily start from this point.

THE 2-3 POSITION. Before describing this position, it must be pointed out that it is not necessary to ring 2-3 in the hunting course to practise it. Better for the beginner to stick to his own pair, and start from any row in which that pair are in the 2-3 position, e.g. (for 5-6), 156342, 123564, 125346. For the trebles, the second needs to start from 4th's or 5th's place, e.g., we could start from 135264 or 164523. However, as we must take some particular point at which to start, we will describe the ringing of 2-3 in the hunting course, as outlined in the diagram given above.

The pair have just crossed in 2-3, and the 2nd has become the leading bell. We must now hunt the leading bell and place the after bell by knowing the number of bells which strike in between, and counting them. This is not so difficult as it would at first seem; at their widest separation there are only three other bells in between, and, if the number of bells were increased, they would continue to hunt with three in between, until one or other turned round at the front or back. On six bells, the pair have only two consecutive rows with three others between them at any one time, and this makes this position much easier on six than on higher numbers.

At the start the 2nd leads, and there are two bells in between; at its second blow on the front, the 3rd reaches 5th's place, and there are three bells in between. In the next row the 2nd strikes in 2nd's and the 3rd has reached the back—still three in between—but the following row when the 2nd is in 3rd's, there are only two between them. The pair then meet in 4-5 and cross over, the 3rd now becoming the leading bell. The 3rd is then hunted down,

counting first two in between, then three in between twice—as on the way up—and two in between as the 3rd leads for the second time. The pair then meet and cross over in 2-3.

Notice that when this pair are crossing in 2-3 the treble is leading ; and when they are crossing in 4-5 the treble is lying. Also that when hunting with three bells in between the treble is the middle bell of the three, and is hunting parallel to them. The pair are said to be “hunting round the treble”.

The number of bells in between in each row should be learned as follows: two, three, three, two, meet and cross in 4-5 ; two, three, three, two, meet and cross in 2-3. The beginner should also try to form a clear mental picture of the diagram. Do not attempt to follow the bells separately ; nor should one rely on waiting for spaces left by the other bells ; the whole position should be learned and practised with certainty until its performance becomes just as easy and automatic as that of the coursing position.

THE 3-4 POSITION. After crossing in 3-4, the leading bell strikes in 2nd's place and the after bell in 5th's, so that there will be two bells in between. The leading bell then leads full (that is, for two rows) while the after bell lies ; for these two rows there are four bells in between. The pair then strike in 2nd's and 5th's again, with two in between, and meet and cross in 3-4. This is repeated for the whole of the plain hunting course. This position will be found easier than the 2-3 position. In both parted positions it will be found a considerable help to know just when the after bell is lying.

PLAIN BOB. This is the simplest method, since it involves the least possible deviation from the plain hunting course. Whenever the treble leads, the bell which it turns from lead “makes second's place” over it and leads again. This is also known as “laying to the treble”, and is necessary to prevent repetition of the previous lead. The other bells are caused to dodge, a dodge being a step backwards in the path of the bell. To illustrate this, at the end of the plain hunting course we have:—

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351624
315264
132546
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135264
312546
321456

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It will be seen that the 3rd “makes second's” while the other bells dodge. Continuing the plain hunt until the treble again leads, we have:—

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153624
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156342

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and the plain hunt is again continued. The subsequent full leads of the treble are:—

165432

164523

.....
146253

142635

.....
124365

123456

The rows included from one full lead of the treble to the next are known as a "lead" of the method. The row when the treble is leading its second blow is called the "lead-end" or, sometimes, the "lead-head".

The plain course of Bob Minor thus comprises five leads which, except for the rows when the treble is actually leading, consist of plain hunting.

BOB MINOR. WORK OF THE PAIRS IN THE PLAIN COURSE.

We will start by describing the work of 1-2. This pair, unlike the others, includes all the positions in the plain course. For this reason some instructors consider it the best pair on which to begin; others prefer to put beginners on 5-6 and introduce them to the parted positions more slowly. While 1-2 are slightly more difficult to learn in the plain course, owing to their change of position at every lead, they are, in the end, the easiest pair.

The beginner should write out the plain course in full and line in his pair.

In the first lead, which is just the plain hunting course, 1-2 are coursing. When the treble leads, the 2nd dodges in 3-4 down; that is, it steps back into 4th's place and two bells come in between the pair. The pair will then meet and cross in 2-3:

315264

132546

135264

312546

The pair thus come into the 2-3 position (which see pp. 7 and 9-10) for the second lead, at the end of which we have :—

516342
153624

156342
513624

The 2nd dodges in 5-6 down, i.e., after lying the pull, and strikes back into 6th's at the lead-end, and the pair will come into the 3-4 position for the third lead. At the third lead-end we have :—

614523
165432

164523
615432

Here the 2nd is dodging in 5-6 up, so it lies after its dodge ; the pair will now be in the 2-3 position for the fourth lead. At the fourth lead-end we have :—

412635
146253

142635
416253

Here the 2nd dodges in 3-4 up, after the pair have crossed in 2-3, so the pair come again into course ; they will, however, be coursing the opposite way round to that of the first lead, that is, the 2nd will be the leading bell on the way down.

At the fifth lead-end we have :—

231546
213456
124365

123456
214365
241635

and the pair are again coursing, as in the first lead.

Notice the order of the positions in the leads : Coursing ; 2-3 position ; 3-4 position ; 2-3 position ; coursing. Also note the places in which the 2nd dodges at the lead-ends : 3-4 down ; 5-6 down ; 5-6 up ; 3-4 up ; and 2nd's place. Note also that the work of 1-2 reverses on itself from the middle two rows of the course, which occur in the middle (third) lead,

234561
243651

CALLS. BOBS AND SINGLES.

The plain course of a method cannot run to more than a certain number of rows (60 in Minor, 112 in Major, etc.*) without repetition. To obtain greater lengths, "bobs" and "singles" are used; in these a place, or places, are made at the lead-end which differ from that made at the plain lead. When these are studied carefully it will be clear that they involve no more complications than the plain lead; certain pairs are merely brought into a different position from that which they would have reached if there had been no call.

For example :—

Plain-lead-end. Bobbed lead-end. Singled lead-end.

132546

132546

132546

135264

123564

132564

At a bob, 4th's is made instead of 2nd's. In the above example the 5th is making the bob (4th's) while the 2nd "runs in" (instead of dodging in 3-4 down) and the 3rd "runs out" (instead of making 2nd's).

At a single, 2nd's, 3rd's and 4th's are made. The bell making 2nd's (the 3rd in the example given) is thus not affected, since it would have done this at a plain lead. The bell which would have dodged in 3-4 down makes 3rd's and returns to the back, while the 4th's is made as in a bob, by the bell which would have dodged in 3-4 up; this bell returns to the front. The bells in 5-6 are not affected by either call.

If a bob is called at first lead-end (see above) the 2nd will run in, and the pair will repeat the first (coursing) lead.

If a bob is called at the fifth lead-end :—

124365

142356

the 2nd will run out, and repeat the fourth (coursing) lead. Thus, if the second is called to run in or out, the pair merely repeat the previous lead.

At the fourth lead-end the pair have just crossed in 2-3 and are about to come into course. If a bob is called, the 2nd will make 4th's, and return to the front, the pair crossing again in 2-3. This brings them back to the 2-3 position at the second lead-end; that is, both coursing leads will be cut out. The same, of course, applies if a single is called at this lead-end :—

Bob.

412635

146253

164235

612453

Single.

412635

146253

146235

412653

* These numbers are doubled in Treble Bob methods.

If a single is called at the first lead-end, when the 2nd is coursing down after the treble, it will make 3rd's and hunt up, the pair now being in the coursing position of the fifth lead. They will thus repeat both coursing leads.

Calls when the 2nd is dodging in 5-6, that is, at the second lead-end when the pair are going from the 2-3 to the 3-4 position; or at the third lead-end when going from the 3-4 to the 2-3 position, do not affect the pair.

Since all the positions are contained in the plain course, it is only necessary to be able to ring this and to become familiar with the work at the calls to be able to ring 1-2 to any touch in the method.

WORK OF 5-6 IN THE PLAIN COURSE.

We will take 5-6 next, as they are the easier of the two pairs of working bells in the plain course. Some consider them the best pair on which to start, as they provide plenty of practice in the coursing position.

Reference to a lined diagram of the plain course will show that 5-6 ring in the coursing position for the first two leads; the third, or middle, lead after the 5th has made 2nd's, is in the 2-3 position around the treble (for which see pp. 7 and 9). 2nd's place by the 6th brings the pair back into the coursing position for the last two leads.

The only work which has not been already explained is found in the dodges, and for these the diagrams given should be quite sufficient. As in plain hunting, parallel dodging should be done from the leading bell, as the number of bells in between does not alter. The learner should make out a lined diagram for the whole course, and notice the order in which the dodges occur.

We give the lead-ends (with adjacent rows) in order :—

First lead-end :—

351624 The 5th dodges in 3-4 up the 6th parallel to it in 5-6 up.
315264
132546

135264
312546
321456

Second lead-end :—

561432 The 5th makes 2nd's over the treble and leads again ;
516342 the 6th, dodging in 3-4 up, strikes back into 3rd's, and
153624 the pair come into the 2-3 position.

156342
513624
531264

Third lead-end :—

641253 The 6th makes 2nd's over the treble and leads again ;
614523 the 5th, dodging in 3-4 down, strikes back into 4th's, and
165432 the pair come again into the coursing position.

164523

615432

651342

Fourth lead-end :—

421365 Another parallel dodge, the 6th in 3-4 down and the
412635 5th in 5-6 down.

146253

142635

416253

461523

Fifth lead-end (the course end) :—

231546 The pair dodge together in 5-6. Note 6-5 is struck at
213456 handstroke and 5-6 at back. The changes are continued
124365 into the beginning of the course to show the full dodge.

123456

214365

241635

WORK OF 3-4 IN THE PLAIN COURSE.

There are two positions ; the 3-4 position itself (opposites) and the 2-3 position.

The learner should produce his own complete diagram ; as before, we give the rows around the lead-ends.

First lead-end :—

351624 This first lead is in the 3-4 position. At the lead-end
315264 the 3rd makes seconds, and the 4th dodges in 5-6 down ;
132546 this brings the pair into the 2-3 position.

135264

312546

321456

Second lead-end :—

561432 This dodge is known as a "scissors" dodge. In this
516342 one the pair have already crossed in 4-5 when the treble
153624 leads ; they separate to a two-bell interval and then dodge
back to strike in 4-5 again, as in the previous back-stroke
row. As the pair have already crossed before dodging,
513624 they do not cross again, but separate and continue the
531264 normal hunt in the 2-3 position.

Third lead-end :—

641253 This is another scissors dodge ; but the pair only meet
614523 in 4-5 as the treble comes to lead, consequently they
165432 dodge apart before crossing. As they have not crossed
before the dodge, they meet and cross over after it ; con-
164523 tinuing the hunt in the 2-3 position as before.
615432
651342
563124

Fourth lead-end :—

421365 Here the 4th makes 2nd's ; the 3rd dodges in 5-6 up
412635 and, as a result, the pair come into the 3-4 position.
146253
142635
416253
461523

Fifth lead-end :—

231546 The pair meet and dodge together in 3-4, thereafter
213456 continuing in the 3-4 position. The changes are continued
124365 into the beginning of the course, to show the full dodge ;
notice that the two leads in this position (opposites) occur
123456 in succession with the dodge in 3-4 between them.
214365
241635

It will be seen that the work of each of the working pairs consists of two positions, one of which, the 2-3 position, is common to both. In the 5-6 work, however, the 2-3 position is rung by the pair round the treble ; and, unless a call is made, the pair are bound to come back into course at the lead-end. In the 3-4 work, the pair are working round another bell when in the 2-3 position ; (in the plain course, 3-4 are round the 2nd) : when one or other of the pair makes 2nd's, the pair will change to the 3-4 position.

A pair can only change its position when one or other bell makes 2nd's. Further, a pair cannot change from one type of work to another except when affected by a call ; if ringing the 5-6 course it will require a bob or single to put them into the 3-4 course, and vice versa.

The beginner who has started on 5-6 may either transfer to 3-4 to learn the 3-4 course ; or may do so by ringing touches which separate the tenors. If he has previously practised on 1-2 he should find no difficulty with the two types of parted lead. In any case the parted positions should be practised until they can be rung with just as much certainty as the coursing leads.

A pair may ring either type of course either way round. Thus 3-4 may ring the 3-4 course from the course-end of the type

1x34xx as in the plain course ; or from 1x43xx, when the positions will be the same but the bells in the reverse order. In the same way 5-6 can ring the 3-4 course either way round. Again, when in the 5-6 course, 3-4 may either course down in the order 3-4 or 4-3. It is not usual for 5-6 to be reversed when coursing, because the music when they are the other way round is very poor ; but, apart from this, there is no reason why they should not be.

CALLS.

We have now to show how calls at different places in the course will affect pairs in either the 3-4 or 5-6 courses. For general remarks on calls, the reader is referred back to page 13.

It would here be possible to give complete examples of bobs and singles at all five lead-ends of the course, and show what effects they had on both pairs. For example, a bob at the first lead-end gives :—

132546
123564

It will be seen at once that 5-6 are put into the 3-4 course at the second lead-end (corresponding to 156342); and that 3-4, while remaining in the 3-4 course, come into the position they occupy at the third lead-end (164523) and are thus reversed.

In actual practice such detailed analysis at this point is not necessary, and might even be confusing. The ringer who has learned and practised the positions should find little difficulty in tackling the calls as they come in actual ringing, and recognising the new position into which his pair may come. Any special difficulty should be studied on paper with the aid of a lined diagram.

A few examples and general remarks may, however, not be out of place. A bob at the third lead-end of the course, that is, at the end of the tenors' parted lead,

165432
156423

causes this pair to run in and out and repeat the parted lead. The pair thus remain in the 5-6 course. It is also obvious that a bob at the fifth lead-end, when they are dodging together behind, will have no effect on the pair. At other places, namely the first, second and fourth lead-ends, bobs will put the pair into some part of the 3-4 course.

Bobs at the first two lead-ends of the course will put 3-4 into some other part of the 3-4 course ; and at the third, fourth and fifth lead-ends will bring them into the 5-6 course.

As an exercise the learner should work out the effects of singles on the pairs at the different leads of the course.

When ringing handbells one should sit so that one can see all the other bells without turning one's head. The learner should

try and watch certain points as soon as he has become familiar with the positions ; for example, he should watch the treble coming to lead, as this will tell him when to dodge. It is an advantage to be able to watch the treble over its whole path, as this is necessary in order to ring more difficult methods ; but one must not expect to be able to do this all at once, and without practice.

When ringing a pair in the 5-6 course, remember which of the pair is first in the coursing order. Try also to pick out its course bell. (See page 9.) When the pair come into the 3-4 work, try and pick out the course bell of one of the pair ; then, later, try to be able to pick out both course bells, remembering which is which, and notice how they are liable to be changed at a call.

MAJOR ; AND HIGHER NUMBERS.

Positions in the plain hunting course of Major :—

2-3 Position.	3-4 (or 5-6) Position.	4-5 Position. (Opposites).
12345678	12345678	12345678
21436587	21436587	21436587
24163857	24163857	24163857
42618375	42618375	42618375
46281735	46281735	46281735
64827153	64827153	64827153
68472513	68472513	68472513
86745231	86745231	86745231
87654321	87654321	87654321
78563412	78563412	78563412
75836142	75836142	75836142
57381624	57381624	57381624
53718264	53718264	53718264
35172846	35172846	35172846
31527486	31527486	31527486
13254768	13254768	13254768
12345678	12345678	12345678

The coursing position of 1-2 and 7-8 is not given because it is just like the 1-2 position in Minor. The 2-3 position, with three bells in between, is also very similar ; but here we have four consecutive rows of hunting with three bells in between instead of two. Notice that 3-4 are hunting with five bells in between ; two other bells are actually coursing between the pair. When hunting in opposite directions, as in the 4-5 position, the interval increases or decreases by two bells in just the same way as in Minor. These positions are rung in just the same way as on six bells, by hunting the leading bell and counting the number between.

In actual practice these positions may be found considerably more difficult than those in Minor ; there are more bells to count,

and there is a greater number of rows when the pair are separated and not actually together and crossing over. In the latter two positions the pair are more widely separated than they can be in Minor. The ultimate aim, however, is just the same; the positions must be learned and practised until they can be rung easily and without conscious effort of counting. Also, of course, as a single unit, without dividing the mind to follow each bell.

It will be seen that there are *four* positions in Major; in Royal there are five (1-2, 2-3, 3-4, 4-5 and 5-6) and in Maximus six. In fact, the number of positions is the same as the number of pairs.

The positions for Royal and Maximus are not given. Any-one who has become familiar with Major ringing should find that he can manage these without further study; his difficulties will merely arise from the greater number of bells and the difference in the rhythm on those numbers.

THE PAIRS IN BOB MAJOR.

The trebles, as in Minor, start in course, and in subsequent leads ring the 2-3 and 3-4 positions, and opposites at the middle lead of the course, after which they work towards each other again through the 3-4 and 2-3 positions back into course for the last lead. Positions change only at the treble's lead when the 2nd dodges; and calls are made in just the same way, and with the same effect as in Minor.

The tenors ring a similar course to those in Minor, only with extra dodges to cover the extra places. The middle lead commences with the 7th making 2nd's place over the treble, and consists of a lead in the 2-3 position around the treble, at the end of which the 8th makes 2nd's and the pair come back into course.

In orthodox touches and peals the tenors are kept coursing, though they may be affected by calls in the following ways:—

(i) A bob at the end of the parted lead, causing the 7th to run in and the tenor to run out. The pair then repeat the parted lead. (This is known as a bob "Before".)

(ii) Bobs (or singles) at the second and third lead-ends of the course, made, in turn, by the 7th and tenor, as shown:—

15372846	15387624
<hr/>	<hr/>
13578264	13586742

Such calls are known as "5ths and 4ths" from the position of the tenor at the lead-ends. They produce a lead with the tenors in the 4-5 position, the second call bringing them back into course; this gives a short course of five instead of the usual seven leads.

Comparatively few peals are rung with short courses; and many are rung without bobs before. In many peals, therefore, the

tenors are unaffected by calls, ringing their own work uninterrupted throughout. Therefore a ringer has only to master the plain course on 7-8 to be able to ring a peal; there is, however, much more required for the ringing of a *good* peal than mere knowledge of the 7-8 course. It must be remembered that the tenors set the beat, or rhythm, and so are largely responsible for the whole character and quality of the ringing.

The work of 3-4 consists of five leads in the 2-3 position, and two in the 3-4 position. The pair dodge together in 3-4 between the "3-4" leads, so the course starts with the second of them. (Compare 3-4 in Bob Minor.)

First lead-end:—

35172846 After the first lead in the 3-4 position, the 3rd makes
31527486 second's and the 4th dodges in 5-6 down, bringing the
13254768 pair into the 2-3 position.

13527486
31254768
32145678

Second lead-end:—

57183624 Here the 3rd dodges in 3-4 down and the 4th in 7-8
51738264 down; we thus have a parallel dodge with three bells
15372846 in between.

15738264 Notice how the 3rd, which has been coursing the
51738264 treble after making second's, picks up its course bell,
53127486 the 5th.

Third lead-end:—

78165432 A scissors dodge in 5-6-7-8, after crossing in 6-7.
71856342 Compare the second lead-end in Bob Minor.
17583624

17856342
71583624
75138264

Fourth lead-end:—

86147253 Another scissors dodge, before crossing. Compare
81674523 the third lead-end in Bob Minor.
18765432

18674523
81765432
87156342

Fifth lead-end :—

64128375 Parallel dodging in 3-4 and 7-8 up. Compare with
61482735 the second lead-end.
16847253

16482735
61847253
68174523

Sixth lead-end :—

42136587 Here the 4th makes second's, and the third dodges
41263857 in 5-6 up, bringing the pair into the 3-4 position. Com-
14628375 pare with the first lead-end.

14263857
41628375
46182735

Seventh lead-end :—

23154768 The pair meet and dodge together in 3-4, between
21345678 the two leads in the 3-4 position. Notice that the posi-
12436587 tion of a pair can only change at a plain lead when
 one of the pair makes 2nd's.

12345678
21436587
24163857

The work of 5-6 consists of four leads in the 3-4 position, and three leads at opposites. In the middle of the four lead block the pair dodge together in 5-6 ; thus the course starts with the last two leads in the 3-4 position.

First lead-end :—

35172846 The 5th dodges in 3-4 up and the 6th in 7-8 down.
31527486 We thus get a scissors dodge, only at a "four and two"
13254768 spacing. This has also been called "concertina work".

13527486
31254768
32145678

Second lead-end :—

57183624 Here the 5th makes 2nd's and the 6th dodges in 7-8
51738264 up ; the pair thus come into the position of 4-5 or
15372846 opposites.

Compare 3-4 in the first lead-end of Bob Minor.

15738264
51372846
53127486

Third lead-end :—

78165432 A scissors dodge in 3-4-5-6 after crossing.
71856342 Notice how the 5th, which has been coursing the
17583624 treble after making 2nd's, picks up its course bell, the
— 7th.
17856342
71583624
75138264

Fourth lead-end :—

86147253 A scissors dodge in 3-4-5-6 before crossing.
81674523
18765432
—
18674523
81765432
87156342

Fifth lead-end :—

64128375 Here the 6th makes second's and the 5th dodges in
61482735 7-8 down, bringing the pair into the 3-4 position. Com-
16847253 pare the second lead-end ; also 3-4 in the fourth lead-
— end of Bob Minor.
16482735
61847253
68174523

Sixth lead-end :—

42136587 The 6th dodges in 3-4 down and the 5th in 7-8 up ;
41263857 a scissors dodge, at 4 and 2 spacing. Compare with
14628375 the first lead-end.
— Notice how the 6th, which has been coursing the
14263857 treble after making second's, picks up its course bell,
41628375 the 4th.
46182735

Seventh lead-end :—

23154768 The pair meet and dodge together in 5-6. This is
21345678 the middle of the block of four leads in the 3-4 posi-
12436587 tion.
—
12345678
21436587
24163857

CALLS. (See also pages 13 and 17.)

The manner in which 7-8 may be affected has already been pointed out on page 23. For the trebles, the rules are just the same as in Minor; if the second runs in or out, a coursing lead is repeated, and if the second makes fourth's both coursing leads are cut out.

The inside pairs, 3-4 and 5-6, may be called into the 3-4, 5-6 or 7-8 courses. A pair can be called into a different course, or into another part of the course already being rung; and a pair cannot change from one type of course to another except by a call. As has already been pointed out, such alterations need not be studied in detail; once a ringer has become familiar with the positions and types of course, he should find no difficulty with the calls in the actual course of ringing.

Ringing is liable to "break down" through a large variety of causes. In the earlier stage of practice such losses will be frequent. We will now assume that that stage has been passed; that each member of the band is familiar with all the positions, and is not upset by calls; and that the ringing can proceed over reasonably long periods with good striking and rhythm. In fact, that the band has reached "peal standard". It is still not possible to eliminate causes of failure entirely, but such failures may be reduced very largely by considering their cause and the manner in which they may be avoided.

First we may ignore what may be termed external causes—interruptions from outside, failure of lighting* and many others over which the band have no control. We may also set aside mistakes in calling by the conductor, although these may be due to trips in the ringing. There remain two main causes of failure:—

(i) Two or more bells changing course. Bells take up each other's work, the ringing proceeding with the bells in the wrong coursing order. This may be due to a trip or hesitation by one of the band, or may occur with no appreciable mistake whatever. It must be put right very quickly if the peal is not to be lost.

(ii) A general breakdown, in which one or more of the band get completely lost, the whole rhythm and pattern gets broken, and the ringing comes to an abrupt end. Such a breakdown may often be started by a very small trip, or very slight hesitation.

Obviously, every ringer must do all he can to avoid making such trips, and to prevent himself becoming involved in those which may be made by other people. He should not just rely on the conductor. Some conductors acquire great skill in checking

* This is not an uncommon cause, a band starting off in broad daylight and failing later as darkness sets in. Many bands have learned that it is not always safe to rely on others to turn on the light. Some people cannot bear to see artificial light being apparently "wasted" in daylight. It is impossible to assess the value of a peal; but it is surely worth more than the very small quantity of artificial light so used.

and sorting out trips ; but the conductor has also the job of calling correctly and ringing his own pair, and it is clear that a band will never reach its best if needless mistakes are made.

Mistakes occur in general in two ways. Either lack of ability and uncertainty, or through over-confidence—one might almost call it boredom—resulting in lack of concentration. The former can only be avoided by more practice. The latter is much more difficult to avoid, because more practice and longer ringing only aggravate the cause. It is often noticeable, both on tower and handbells, that a ringer to whom advanced ringing seems to come easily is more prone to make mistakes than others. To him the very ease with which he learns causes lack of concentration.

How, then, is one to avoid making trips ? Quite clearly, it is very necessary to have something very definite to think about ; and it is of little use going on ringing the positions by mere endless counting when this is no longer necessary, and thus making a labour out of what should come easily.

The next step certainly, in plain methods, should be the observation of course bells. It has already been pointed out that, in Minor, the 5th follows the 6th to lead, and the 6th, in turn, follows the 4th. Now every bell has such a course bell. In the Plain Bob method every bell follows its course bell down to lead every time, except in the lead after it has made second's; during this lead it courses the treble, and at the end picks up its course bell (which, in turn, will be making 2nd's) by dodging in 3-4. Apart from this one lead, a bell can only change its course bell when a call is made. The whole course of Plain Bob is therefore a procession, with each bell following a definite leader.

It is easiest to start picking out one's course bell from the tenors, since there will be only one to follow. Ringing an inside pair, the ringer may find it difficult to observe course bells for both immediately ; he should try and follow that of one of his bells all the time and, when he has learned to do this easily, try to add that of the other. Following one course bell will at least be some guard against one's pair changing course together. It is important to be able to pick out one's new course bells directly a call is made, but this can only be acquired slowly through practice. When one's pair are coursing down one should also remember which bell is coming down first, whether coursing with the larger first, like the tenors, or coming down "wrong" with the smaller in front.

It has been argued that course bells are of little use, because one's course bell itself may go wrong. Ringing can never be made absolutely safe ; but it is hardly likely that two people will go astray at exactly the same moment, and if all know both their course bells, mistakes are very much less likely to develop. Certainly the increasing use of course bells and coursing orders in recent times has resulted in a far greater proportion of successes to failures.

Plain Bob and simple plain methods, Treble Bob and Grand-sire are methods in which course bells are of greatest use and most importance. They should also be known in such methods as Double Norwich and, to a certain extent, are useful in Surprise ringing. In the more intricate methods a bell is separated very much more from its course bell, and so other ways of checking have to be employed ; these will be dealt with later.

While a band may well start by ringing Bob Major, *six bells is far the best number for learning to ring by construction*, which is the modern way of ringing the more advanced methods. As a step up from Bob Minor, we advise Single Court.

Study the lead given :—

	123456	It will be seen that it consists entirely of plain
	214365	hunting, except when the treble is in 2-3 (up and
	241356	down) when 4th's place is made ; this place allows
	423165	plain hunting in 1-2-3-4, but causes a single dodge
	432615	in 5-6. The work done during the two rows when
	346251	the place is made is exactly the same as that at a
	364521	bob in Bob Minor—that is, there is a full lead
	635412	(though not by the treble), two bells cross in 2-3 ;
	653142	4th's is made by a bell which comes from the front
	561324	and returns after making the place, and the re-
	516342	maining pair dodge together behind.
	153624	
	135264	To ring this method, therefore, we should not
		learn the new positions, but watch the treble and
		mentally call a bob as it crosses 2-3. Having be-
Bob	153624	come used to watching it as it leads in Bob Minor,
	135642	there should be no difficulty in seeing when it
		leaves the front. As a help to seeing it when it
		comes down, watch the bell which makes 4th's in
Single	153624	the first half lead: this bell leads full when the
		treble lies, crosses it in 3-4 and makes the second
	135624	4th's place as it is coming down. For the rest, the
		bells hunt as in Bob Minor.

Single Oxford (or Oxford Bob) is the same, with 2nd's place over the treble as it leads. It is therefore this method with a Bob Minor lead-end.

Double Court and Double Oxford are very natural further steps ; in these methods 3rd's place is made when the treble crosses 4-5, causing dodging in 1-2.

We can now state a principle which applies in all forward methods (i.e., methods with places made "right", at hand- and back-stroke only):—

EVEN PLACES, i.e., those made in 2nd's, 4th's, etc., **CAUSE THE BELLS BEHIND THE PLACE TO DODGE**, and allow plain hunting in front of the place.

ODD PLACES, i.e., those made in 3rd's, 5th's, etc., CAUSE THE BELLS IN FRONT OF THE PLACE TO DODGE, and allow plain hunting behind the place.

An even internal place is made by a bell coming from and returning to the front ; it is merely a turn-round in the path of the bell before it has reached the back.

Similarly, an odd internal place is made by a bell turning round on its way down before reaching the front.

In plain hunting, two places are always made between a hand- and a back-stroke row, namely, the whole pull at lead and the whole pull behind. These are *external* places. Internal places can be substituted for them, an odd place for the full lead and an even for the whole pull behind. A little thought will show that there *must* be two places in forward methods between the hand- and back-stroke rows.* These places may be either internal or external ; but one *must* be odd and the other even.

In forward methods there are no places made "wrong", i.e., at back and hand, except for contiguous places such as those which occur in 3-4 in Kent Treble Bob. These cancel each other out, causing backward hunting for one row between two bells only.

The possible places "right" in Minor are therefore :—

1st's and 6th's : external places, as in plain hunting.

1st's and 2nd's : causing dodging in 3-4 and 5-6.

1st's and 4th's : plain hunt in 1-2-3-4 ; dodging in 5-6.

3rd's and 4th's : dodging in 1-2 and 5-6.

3rd's and 6th's : dodging in 1-2 ; plain hunt in 3-4-5-6.

5th's and 6th's : dodging in 1-2 and 3-4.

(The latter only occur in legitimate methods when the treble is lying behind.)

TREBLE BOB. The treble bob hunt consists in dodging in every place before passing on to the next ; that is, in 1-2, 3-4 and 5-6 on the way up, and the same in reverse order on the way down. A complete treble bob hunting course in which all bells followed this path would be very false, since alternate rows would repeat. An internal place is therefore necessary whenever the treble dodges, to avoid repetition.

In Kent and Oxford Treble Bob these places are made in 3-4 when the treble is in 1-2. When it is above 1-2, the dodging is brought about by a 2nd's place. Hence all working bells follow a Treble Bob course except in 3-4, when the treble is in 1-2, and in 1-2 when the treble is elsewhere. These methods can thus be learned very easily by positions ; they are very simple, and may be attempted immediately after, or even along with, Plain Bob.

* At a single there are four places ; but a single, being a call, does not form part of the construction of the method.

It is better, however, and more in keeping with the modern system of handbell ringing, to ring them by watching the bell in the slow, i.e., the one which makes the 2nd's place throughout the lead. Every time it makes 2nd's we have a pair of rows with dodging exactly similar to a Plain Bob lead-end. In any case, however, the learner is advised to look at the lined diagram, or parts of it, noting particularly (i) the work in connection with the 3-4 places, (ii) the way in which every bell goes into and leaves 1-2, and (iii) the work of a pair when one of them is in the slow.

Course bells are particularly useful in Treble Bob. Kent is the easier method of the two to try first, since the places in 3-4 do not disturb the natural coursing order. For bands who are starting with Major, Kent is probably the best method to proceed to after Plain Bob.

ODD-BELL METHODS.

For learning double-handed ringing, even-bell methods are undoubtedly more suitable. The first and obvious disadvantage of odd-bell methods is that the tenors do not give the chance to learn ringing by position, and this pair in Major is a very useful pair for beginners. Further, there is no advantage to be gained by keeping the tenor behind, as there sometimes is in the tower.

Only two odd-bell methods are commonly practised today, Grandsire and Stedman. Grandsire Triples is very similar to Bob Major and is well worth ringing as a change from that method. The positions are somewhat more difficult, since the whole pull behind is "wrong" and does not correspond with that in front. The calls present greater difficulties, and the method is rather harder for the conductor. A band of learners would not reach peal standard so soon in this method as in Plain Bob.

Stedman is an excellent method for handbells, but is certainly not to be recommended for beginners. Stedman Triples is particularly easy to lose, and comparatively few peals are rung. The method demands considerable practice and competent conducting. Its performance depends on observation rather than prolonged positional work. Being a Principle, in which all bells do the same work, it differs from treble-dominated methods, and must be regarded as an end in itself rather than a step to higher methods, but it is well worth practising for its own sake.

A number of odd-bell methods have yet to be rung in hand, but the scope is very much smaller than it is in even-bell ringing. So, unless a band intend to concentrate on these, or on Stedman, odd-bell methods must be regarded as something of a sideline.

The following examples are inserted to show how work from a simple method like Plain Bob appears in a rather more complicated form in higher methods:—

Kent Treble Bob.	Double Norwich Court Bob.	London Surprise.
1234 5 678	12 3 45678	15738264
2134 6 587	21 4 36587	51783624
1243 5 678	2 4 135678	15876342
2143 6 587	4 2316587	51867432
241638 5 7	2 4361578	58164723
4261837 5	4 2635187	85617432
421638 5 7	2 4365817	85164723
2461837 5	4 2638571	58617432
2648173 5	4 6283751	85671342
		86573124
		68751342
		67853124
		76583214

Stedman Triples Stedman Cinques.

321 5 476	21357496e80	The first five examples illustrate scissors dodging in various forms and at different spacings.
3124 5 67	2317594e608	
132 5 476	32157496e80	
1234 5 67	3127594e608	
213 5 476	13257496e80	

2314 5 67	1237594e608
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3241 6 57	21357496e80	The second example of Stedman Cinques shows parallel dodging at three-bell interval.
234617 5	2317594e608	
2431 6 57	32157496e80	
423617 5	3127594e608	
4321 6 57	13257496e80	

342617 5	1237594e608
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436271**5**

MORE ADVANCED METHODS.

So far we have dealt with the ringing of Plain Bob by the positions, and shown how this system may be extended to other methods of simple construction. We must now consider methods of more complicated construction. The difficulty of a method does not necessarily depend on the number of its internal places, but rather on their arrangement; but, as the number of these places is increased, with consequent extra dodging, so the positions become less and less like those of Plain Bob. Further, the leads for any particular pair in the plain course will become less and less alike. Even leads of the tenors will no longer resemble each other, as in Plain or Treble Bob.

A little consideration will show that it is desirable to adopt some other method than mere learning of positions by heart with diagrams. Consider even a comparatively simple method like Double Norwich ; learning a pair in a method of this kind for one lead only is much harder than learning the path of one bell, and the leads are so different from each other that one would have to learn all seven in order to ring a plain course. Some, it is true, are reflections of others, that is, one lead may be another in reverse, but it would still be necessary to commit all seven to memory. This would be sufficient for the trebles or tenors ; but, for an inside pair, one would have to know *all* the positions, a total of twenty-one leads. Further, it would be difficult to recognise which of these twenty-one leads one was called into during the ringing of a touch.

The simplicity of Plain and Treble Bob lies in the absence of internal places in the one and the regular 2nd's place in the other. In both these methods we have a continuous type of work which can be accomplished by the learning of a few standard positions. All legitimate methods are regular, and, except for Principles (e.g., Stedman) are treble-dominated ; that is, the work at any given place in the lead is decided by the position of the treble. The key to ringing these methods in hand lies in their construction, which consists of various internal places which are made as the treble moves up and down. We have merely to examine this construction and discover how it can be used, and the work of any pair will become plain during the course of ringing in the same way as the plain hunting positions of Plain Bob or the dodging hunt of Kent.

We will begin by considering methods with places made "right", i.e., at hand and back.

We have seen how, in plain hunting, it is necessary for every bell as it arrives at front or back to lead or lie a whole pull as it reverses its direction. Such places are known as "external" places, while those made within the change are "internal". We have also shown how internal places can take the place of external ones, and how they cause dodging. (See pages 25 and 26.) The construction of any method is the same in every lead ; further, the places made as the treble comes down in the second half of the lead must be the same as those made in the first half as it is going up, coming, of course, in reverse order.

To show how the construction may be used, we will give examples of various methods, starting with Double Norwich. This method, although an easy one, has sufficient internal places to show how the system may be used.

In Double Norwich, places are made as near to the treble as possible consistent with its plain hunt. In the first two rows there is a full lead (1st's) and 4th's while the treble moves through 2-3 ; 3rd's and 6th's follow as it passes through 4-5, and finally 5th's and 8th's as it crosses 6-7. It thus proceeds to the back in a series of compartments, or boxes, of four bells each, bounded by places.

Remembering that even places cause dodging behind and odd places cause dodging in front, the lead may be summarised as follows:—

Lead and 4th's: Plain hunt 1-2-3-4: Dodging in 5-6 and 7-8.

3rd's and 6th's: P.H. in 3-4-5-6: Dodging in 1-2 and 7-8.

5th's and 8th's: P.H. in 5-6-7-8: Dodging in 1-2 and 3-4.

When the treble lies there is a whole pull on the front, so for two rows all plain hunt. Similarly when it leads there is a whole pull behind, and all the bells plain hunt.

As in all legitimate methods, the second half of the lead must be similar to the first, only reversed:—

5th's and 8th's: P.H. in 5-6-7-8: Dodging in 1-2 and 3-4.

3rd's and 6th's: P.H. in 3-4-5-6: Dodging in 1-2 and 7-8.

1st's and 4th's: P.H. in 1-2-3-4: Dodging in 5-6 and 7-8.

Here is the lead, with the places marked and the treble's path in heavy type:—

12345678	Places.	Plain hunt	Dodging.
214 3 6587	1st's and 4th's.	1-2-3-4.	5-6 and 7-8.
24135678			
42316587	3rd's and 6th's.	3-4-5-6.	1-2 and 7-8.
24361578			
42635187	5th's and 8th's.	5-6-7-8.	1-2 and 3-4.
24365817			
42638571	1st's and 8th's.	Throughout.	None.
46283751			
64827315	5th's and 8th's.	5-6-7-8.	1-2 and 3-4.
46287135			
64821753	3rd's and 6th's.	3-4-5-6	1-2 and 7-8.
46812735			
64187253	1st's and 4th's.	1-2-3-4.	5-6 and 7-8.
61482735			
16847253	1st's and 8th's.	Throughout.	None.
18674523			

It should be pointed out that, in learning forward methods, it is not necessary to learn the external places, since a full lead must occur with an even place, and a full lie with an odd place. The construction of Double Norwich can thus be learned simply as: 4th's; 3rd's and 6th's; 5th's, for the first half lead; and 5th's; 3rd's and 6th's; 4th's for the second half.

Now consider the work of a pair in this lead, taking 7-8 for example. In the first two rows, 4th's is made, so the pair dodge together; in the next two, 3rd's and 6th's, the latter place causing another dodge. Then follows 5th's; the tenor starts to come down, crossing the treble in 6-7, while the 7th lies the whole pull. For the next two rows, while the treble lies, the pair hunt down in

course. We then have 5th's, as the treble crosses 6-7 down ; the tenor, having reached 3rd's, dodges back into 4th's, while the 7th makes the place ; so for one row the pair strike in 4-5. The next two places, 3rd's and 6th's, are made by the tenor and 7th ; they thus form the "box" around the treble and another bell which are crossing in 4-5. The pair then meet in 4-5, and the 4th's place is made by the tenor ; this causes the 7th to dodge back into 6th's, and the pair come into course. The tenor then goes down to turn the treble from the front and, if we continued into the next lead, the pair would go down to dodge on the front together.

Notice how the method must be mentally divided into pairs of rows, the places in each pair being known. Since these places depend on the position of the treble, *a ringer must be able to follow the path of the treble up and down whatever pair he may be ringing himself.* Ability to follow the treble and perform the work in connection with the places can only be developed by practice, and for this *the importance of simple methods, particularly Minor methods of the Court type, cannot be over-emphasised.* It is also obvious that *a thorough knowledge of the plain hunting positions is absolutely necessary.*

Double Norwich is an excellent method for handbells. It provides interesting ringing, but is quite easy enough to be within the capabilities of any reasonably good band. The coursing order of the bells is maintained at front and back, and all coursing pairs come into course when the treble lies (since Plain Bob rows occur when the treble is behind) as well as when it leads. Notice also that the pairs of places, forming the compartments around the treble's path, are all made by coursing pairs.

These facts, coupled with its great regularity and the entire absence of isolated places and dodges, make it a comparatively safe method for peal ringing. It provides scope for skill in ringing rather than being a mere tax on the powers of concentration and endurance. Many methods of simpler construction and less interest in ringing may prove more difficult for peal ringing. Isolated places and single dodges often cause unexpected trouble, especially when the coursing order is broken up.

Other plain Major methods of interest include Double Oxford. This is an even safer method than Double Norwich, but its long dodging and tendency to stagnation may prove somewhat tedious to a good band. Single Norwich, Oxford Bob and Shipway's Court, though of slightly more simple construction, may prove just as interesting in ringing as Double Norwich. Very many similar plain Major methods are to be found in the Central Council Collection. A large and practically unexplored field exists in plain Royal methods.

As an example for analysis of construction a lead of Cambridge Court Bob Major is given. Peals in this method have been

rung both on towers and handbells, but it has not yet received that attention from the Exercise which such an excellent method deserves. The coursing order is rather more disturbed within the lead than it is in Double Norwich; this fact and its isolated places make it somewhat more difficult for peal ringing.

12345678
21436587
24135678
42316587
24361578
42635187
46253817
64528371
46582731
64857213
68475123
86741532
68714523
86175432
81674523
18765432
17856342

Calls. Bob and Single as in
Double Norwich.
Bob 18765432

17856423

Single 18765432

17856432

SURPRISE METHODS.

In Surprise methods the treble has a treble-bob hunt, so that an internal place must be made every time it dodges. Also, by definition, methods of this class include at least one internal place at every cross-section, that is, whenever the treble passes from one set of dodging places to another. We will first consider methods with places made right : of the four standard Surprise methods, Cambridge and Superlative are in this class, while London and Bristol are not.

We begin with an analysis of Cambridge Surprise Minor. Internal places only are given for simplicity, as these are sufficient to determine the rest of the work. It has already been noted that even places must occur in conjunction with a full lead, odd places with a full lie. In ringing Surprise methods it is helpful, besides dividing the rows into pairs, to divide the whole lead into sections, and this has been done in the example given. A further division has been made when the treble is lying ; this is not strictly a cross-section, but a division at this point is clearly required. Unlike the division into pairs, the division into cross-sections comes between hand- and back-stroke.

Any band who have rung Treble Bob and some of the simpler plain Minor methods should find they have little difficulty with Cambridge. It is very regular and simple in construction, and is quite the best Minor method for a band who are starting on Surprise ringing. Apart from those places made when the treble leads and lies, it contains the minimum number of internal places for a method in the Surprise class.

Cambridge Surprise Minor.	Position of Treble.	Place.	Dodging.	Plain Hunting.
123456				
214365	1-2	3rd's.	1-2	3-4-5-6
124635				
216453	2-3	4th's.	5-6	1-2-3-4
261435				
624153	3-4	2nd's.	3-4 and 5-6	—
621435				
264153	4-5	3rd's.	1-2	3-4-5-6
624513				
265431	5-6	4th's.	5-6	1-2-3-4
256413				
524631	6th's	5th's.	1-2 and 3-4	—
256431				
524613	5-6	4th's.	5-6	1-2-3-4
542631				
456213	4-5	3rd's.	1-2	3-4-5-6
546123				
451632	3-4	2nds.	3-4 and 5-6	—
456123				
541632	2-3	4th's.	5-6	1-2-3-4
514623				
156432	1-2	3rd's.	1-2	3-4-5-6
516342				
153624	Lead	2nd's.	3-4 and 5-6	—
156342				
Bob				
153624	Lead	4th's.	5-6	1-2-3-4
135642				

To learn the construction, it is only necessary to learn the places in the column given : 3rd's, 4th's, 2nd's, 3rd's, 4th's, 5th's for the first half lead ; and these places in reverse, i.e., 4th's, 3rd's, 2nd's, 4th's, 3rd's, 2nd's for the second half lead.

MAJOR. SUPERLATIVE AND CAMBRIDGE SURPRISE.

These two methods are very similar in construction, and may be considered together. In both methods the places made at the cross-sections are the same; further, they are the same as those in Double Norwich, 4th's; 3rd's and 6th's; and 5th's.

We give the analysis of a lead of Superlative, leaving that of Cambridge to the reader.

These analyses need not be learned by heart. Theoretically, all that is necessary to ring a method is to know its internal places and their relation to the path of the treble. In actual practice, considerably more knowledge is needed, and much of this can only be gained through experience.

Superlative Surp. Maj. Treble.	Places	Dodging	Plain Hunting	
12345678				
21436587	1-2	3rd's and 6th's.	1-2 and 7-8	3-4-5-6
12463578				
21645387	2-3	4th's.	5-6 and 7-8	1-2-3-4
26143578				
62415387	3-4	5th's.	1-2 and 3-4	5-6-7-8
26145837				
62418573	4-5	3rd's and 6th's.	1-2 and 7-8	3-4-5-6
26481537				
62845173	5-6	4th's.	5-6 and 7-8	1-2-3-4
68241537				
86425173	6-7	5th's.	1-2 and 3-4	5-6-7-8
68245713				
86427531	7-8	3rd's and 6th's.	1-2 and 7-8	3-4-5-6
68472513				
86745231	8th's	7th's.	1-2, 3-4, and 5-6	—
68472531				
86745213	7-8	3rd's and 6th's.	1-2 and 7-8	3-4-5-6
68754231				
86572413	6-7	5th's.	1-2 and 3-4	5-6-7-8
68752143				
86571234	5-6	4th's.	5-6 and 7-8	1-2-3-4
85672143				
58761234	4-5	3rd's and 6th's.	1-2 and 7-8	3-4-5-6

85716243				
58172634	3-4	5th's.	1-2 and 3-4	5-6-7-8
85712364				
58173246	2-3	4th's.	5-6 and 7-8	1-2-3-4
51872364				
15783246	1-2	3rd's and 6th's.	1-2 and 7-8	3-4-5-6
51738264				
15372846	Lead	2nd's.	3-4, 5-6, and 7-8	—
15738264				
Bob				
15372846	Lead	4th's.	5-6 and 7-8	1-2-3-4
13578264				

METHODS WITH PLACES MADE RIGHT. GENERAL CONCLUSIONS.

Even-bell methods dealt with so far have all their places made right, and are thus forward methods. We have seen that certain simple rules apply, which may be summarised as follows:—

(i) All even places are made from the front, by bells coming up and proceeding down after making the place. Similarly, all odd places are made from the back.

(ii) Even places allow plain hunting in front of them, and cause dodging behind. Similarly, odd places allow plain hunting behind, and cause dodging in front.

(iii) A bell never changes the direction of its hunt without making a place. Therefore, in the path of any bell an odd place must be followed by an even, and vice-versa. Odd and even places must occur alternately. (This, of course, includes external places.)

METHODS WITH PLACES MADE WRONG.

When places are made wrong, i.e., at back and hand, none of the above rules apply. A glance at the leads of London or Bristol will show the truth of this. Places can be made from either direction, nor does a bell necessarily turn back after making a place. A bell can reverse without making a place; and an odd place in a bell's path need not be followed by an even one.

Methods which contain such places involve a certain amount of backward ringing, and are known as "backward" methods, to distinguish them from forward methods. To understand backward ringing it is first necessary to obtain a clear idea of what constitutes forward ringing.

All ringing commences at handstroke, the first change from rounds being struck at hand. If we look at the path of any bell in the plain hunting course we find that at any given stroke the direction in which it moves depends on whether it occupied an odd or an even place in the previous row. Thus, in ringing a handstroke row, all bells which occupied odd places in the previous (backstroke) row move up, while those which occupied even places move down. At backstroke the reverse applies, only certain bells may be completing their places in order to reverse direction. All ringing in forward methods follows this rule, the only exception being in the dodging; but as this holds for one blow only, no advantage is to be gained by classifying dodges as backward; it will be best to consider all dodging that occurs in forward methods as forward ringing. Thus the treble in Treble Bob may be considered to be ringing forward.

To obtain complete backward ringing we would only have to start any forward method at backstroke instead of at hand. It is clear, therefore, that backward ringing, in itself, is no harder than forward. A band of learners who started all their ringing at backstroke, thus making it backward, would find no extra difficulty. The change from forward ringing, however, may be found a little awkward at first.

The difficulty in backward methods lies in the fact that the ringing can never be completely backward. The treble always rings a forward course, and, consequently, all bells as they cross it or dodge with it must also ring forward. The difficulty thus lies in the manner in which the two sorts of ringing are combined and in which the bells change in their course from one to the other. Further, it is possible to include many more internal places in this type of method; and those made wrong can overlap those made right.

LONDON SURPRISE MAJOR.

London is an excellent method in this class ; besides being a standard method of long and deservedly high standing, it demonstrates practically the maximum amount of backward ringing it is possible to put into a method. Except for the bells in 6-7-8 when the treble is in 4-5, every bell rings a backward hunt wherever possible. All leading between the whole turns is done wrong ; and every bell after crossing the treble or dodging with it resumes its backward course at the earliest possible moment. Notice that the places have a drawing rather than compelling effect. Those in forward methods cause dodging ; these allow it. They are forced, between the backward ringing on the front and the forward course of the treble.

While the construction of London must be learned by the places, it will be found helpful to divide the method into sections and study these separately. (For the lead, and full analysis, see page 38.

First section : Treble in 1-2. Two 3rd's places are made (wrong) causing the bells behind (i.e. in 4-5-6-7-8) to hunt backwards. The first of these is made by a bell coming down, which goes up to 6-5-6. The second by a bell coming down also, but this goes on to do a Stedman whole turn on the front. This whole turn starts the unbroken series of full leads wrong, which are continued until the treble leaves 5-6 on the way down in the second half lead.

At the first cross-section 4th's place is made ; this place overlaps the second wrong 3rd's.

Second section : 2nd's place is made (right) while the treble dodges in 3-4.

At the second cross-section 3rd's place is made while treble crosses 4-5. The bell which makes this place proceeds down to a full lead wrong.

Third section : Treble dodging in 5-6. Two 4th's places are made wrong. The first is made by the bell which has just done its 6-5-6 and proceeds down. The second is made from the front.

At the third cross-section 5th's place is made. This is made by the bell which has just dodged with the treble in 5-6 ; it goes down after making the place.

Fourth section : Treble dodging in 7-8. Two 6th's places are made wrong, similar to the 4th's places in the previous section.

As the treble lies, 5th's is made by a bell from the front, which goes down after making the place.

The second half of the lead is, of course, similar to the first half, in reverse order.

It is very helpful in London, and indeed in all Surprise methods, to watch the bell doing "middle work". This is the bell which makes the place when the treble lies behind, and reverses for the second half lead. In the first lead of London it is the 7th ; in Cambridge and Superlative the 3rd, and in Bristol the 2nd.

London S.M. Treble	Place	
12345678	1-2	3rd's w. Backward hunting behind place.
21354768		
12537486		3rd's w.
21573846	2-3	4th's
25178364		
52713846	3-4	2nd's Dodging 3-4, 5-6 and 7-8. Bells in 5-6 and 7-8 do dodge and a half, and reverse to forward hunt.
52178364		
25713846	4-5	3rd's
52731486		4th's w. Backward hunt starts in front of places. Dodging in 5-6 and 7-8.
57234168	5-6	
75321486		4th's w.
73524168	6-7	5th's
37254618		6th's w. Backward hunt continued in front of places. Dodging in 7-8.
32745681	7-8	
23476518		6th's w.
24367581	8th's	5th's
42637851		6th's w. Backward hunt continued in front. Dodging 7-8.
46273815	7-8	
64728351		6th's w.
67482315	6-7	5th's
76842135		4th's w. Backward hunt continued in front. Dodging in 5-6 and 7-8.
78641253	5-6	
87462135		4th's w.
84761253	4-5	3rd's
48716523		Bells in 5-6 and 7-8 do dodge and a half and reverse to backward hunt.
84175632	3-4	2nd's
84716523		
48175632	2-3	4th's
41876523	1-2	3rd's w. Backward hunt continued behind places.
14867253		
41682735		3rd's w.
14628375	Lead	2nd's
14263857		
Bob		
14628375	Lead	4th's
16423857		

Note: The letter "w" after places indicates that such places are made wrong.

Bristol S.M. Treble	Places		
12345678	1-2		Dodging 1-2 and 3-4.
21436587		5th's	Forward hunt behind place.
12346857			
21438675	2-3	4th's	Bells behind reverse to backward hunt.
24136857	3-4	5th's w	Dodging 1-2 and 3-4.
42316587			
24135678		5th's w.	Backward hunt behind place.
42315768	4-5	3rd's & 6th's	
24351786	5-6	4th's w.	Dodging 5-6 and 7-8.
23457168			Backward hunt in front of places.
32541786		4th's w.	
35247168	6-7	5th's	
53427618	7-8		Bells in front reverse to forward hunt.
35246781		4th's	Dodging in 5-6 and 7-8.
32547618			
23456781	8th's	Full lead	Plain hunt (forward) throughout for two rows.
24365871	7-8		
42638517		4th's	Dodging 5-6 and 7-8.
46235871			Bells in front reverse to backward hunt.
64328517	6-7	5th's	
46238157	5-6	4th's w.	Backward hunt in front of place.
42631875			Dodging 5-6 and 7-8.
24368157		4th's w.	
23461875	4-5	3rd's & 6th's	Bells behind reverse to backward hunt.
32416857	3-4	5th's w.	Dodging in 1-2 and 3-4.
23146587			
32415678		5th's w.	
23145768	2-3	4th's	
21347586	1-2		Bells behind reverse to forward hunt.
12435768		5th's	Dodging in 1-2 and 3-4.
21345678			
12436587	Lead.	Full lie	All plain hunt for two rows.
14263857			
Bob			
12436587	Lead.	4th's	Bells behind place dodge and repeat same lead.
14235678			

LONDON SURPRISE.

It will soon become apparent that the purpose of the majority of the places in this method is to allow the treble to follow a forward course through ringing which is almost entirely backward. While London is a method which requires much practice before peal ringing standard can be reached, it has certain saving graces for the handbell ringer. It contains much plain hunting; this is backward, but becomes, with practice, as easy as forward ringing. All places are made near the path of the treble. The natural, or Plain Bob, coursing order is maintained behind and, generally, on the front. Finally, the order in which bells come as successive leads, 3, 5, 7, 8, 6, 4, 2, is particularly easy to remember. This is an advantage when using the method of ringing from lead to lead, which will be explained later.

BRISTOL SURPRISE.

This method may, at first, be found more difficult than London, being a much more even mixture of forward and backing ringing. It is built up in compartments of four bell changes, and its construction differs very greatly from that of the other standard Surprise methods. It is a lengthening lead method, in which a bob affects five of the working bells, and causes those in 5678 to repeat a lead. When really mastered, its great regularity (as a double method) and close alliance of coursing bells are a considerable help towards peal ringing. The natural coursing order is maintained throughout on the front as well as at the back, and coursing pairs keep well together all through.

In all handbell ringing, but especially when ringing Surprise methods, too much importance cannot be attached to watching the treble. This bell is the sole guide to the method's construction; its position at any given point decides what internal places are to be made. The tenors also are of great importance; they set the rhythm, and the other working bells fit into the pattern set up by this pair and the treble.

It has already been pointed out how important it is for every member of a band to ring his own pair correctly, and thus save the conductor the added task of sorting out mistakes. Handbell ringing is much more liable to break down than tower bell ringing, especially in the more advanced methods. Two bells go astray if one man loses himself, and each individual ringer is more concerned with the immediate work of his pair and so has less opportunity to think ahead and guard against becoming lost if a mistake is made. Quite a small trip may be enough to break the rhythm, destroy the pattern and bring the ringing to an end.

Every ringer should endeavour to guard against making mistakes himself ; and to guard against becoming involved in those made by others.

The observation of course bells for the simpler methods has already been dealt with. In Surprise methods coursing pairs are separated very much more, and so the knowledge of course bells, though useful, is not nearly so helpful as a safeguard against going astray. In Surprise ringing the best method is probably that employed by most ringers in the tower, of ringing from lead to lead ; this means knowing from what places one's bells started in any given lead, and thus in what positions they will be at the next lead-end. The ringer can thus keep a constant check on each of his pair as the ringing proceeds. This statement may seem at first sight to be a direct contradiction of the rule given at the beginning, that the bells must be rung as a single unit. It must be pointed out, however, that the pair are always *worked* to help each other, as one bell. Ringing from lead to lead, noting the positions of each bell separately, is only used as a check to avoid mistakes, and does not mean that each bell is rung by following the path irrespective of the other. It should certainly not be attempted until the actual performance of the work of the method has become automatic. As with the following of course bells, it may be found very difficult, and the ringer may have to develop this idea slowly, using it for only one of his bells at first.

Observations of this sort must be largely a matter for the individual. Every method will be found to have certain guides which prove helpful, and it is for the ringer to use those which suit him best. It is better to use few rather than many ; it is a mistake to give oneself too much to think about, for if one does this the rhythm of the ringing may suffer.

STEDMAN. (See also p. 27.)

Unlike the treble-dominated methods, no hard and fast rules can be laid down for keeping right ; a band must acquire an intimate knowledge of it by practice. Constructionally it is not difficult, but it is very easy to lose ; quite a small trip in the front work is enough to upset the sixes. In Caters and Cinques the back bells are almost always put into either the tittums or hand-stroke home position, and thus form a very useful framework for the pattern of the ringing. The absence of such a framework renders Triples probably the most difficult for peal ringing.

Several methods are used to ensure going into the front work the right way: (i) when in 4-5 down, to see whether the six in progress is quick or slow ; this can be done by observing whether the leading is being done right or wrong.

(ii) To follow a course bell from the back. If one crosses this in 3-4 on the way in, it will be coming out quick, so one goes in slow. If, on the other hand, it went in slow, it will be completing its first whole turn, and one must go in quick and turn it from the front.

If one of the pair is already on the front when the other comes in, its work will decide the nature of the six. When both bells are on the front together, it is very necessary to remember which one is due to go out first.

Some ringers prefer to watch the front work throughout, and thus know at any moment whether the sixes are quick or slow. It is hardly necessary to point out that a quick six is forward and a slow six is backward.

CONDUCTING.

A knowledge of the principles of conducting is very useful to every ringer. Not only does it give an added interest to ringing, but also provides great help in the avoidance of mistakes, and may thus make all the difference between a "safe" ringer, and one who needs looking after.

The duties of the conductor are:—

- (i) To make the calls correctly.
- (ii) To be able to correct mistakes.
- (iii) To keep a constant check on the correctness of the ringing.

(i) It is, of course, absolutely necessary that the conductor should know and call his composition correctly, and therefore his first concern should be to see that he makes his calls at the proper places, and that they are correctly made. So, if a mistake is developing, his first thought should be of his next call; it is useless to correct a mistake and then miss a bob.

(ii) As already stated the task of correcting mistakes should be taken off the conductor as far as possible by the rest of the band. This does not mean that others should speak; many conductors find this a handicap rather than a help; but everyone should try, as far as possible, to avoid making mistakes. However, the conductor has to look after his band through all stages of practice, so the ability to correct mistakes is really necessary. A good conductor corrects mistakes before they become serious, and at the same time learns by instinct when to speak and when to remain silent. He will learn to recognise the difference between a small trip which will need no correcting, and a serious mistake

which will lead to a ringer becoming lost. Further, the conductor must gain the confidence of his band. His word must be final ; so that any direction he may give must be founded on certainty.

(iii) It is the conductor's duty to stop the ringing if the bells are wrong ; so he should be able to keep at least a fairly constant check on the ringing.

In general, calling is done by noting and learning the position of one bell, known as the observation bell. There may also be further secondary observation bells. It is usual for the primary observation to be the tenor, or tenors, but this need not always be so. The conductor may, or may not, ring this bell himself ; a handbell ringer, learning as he does to watch other bells than his own, will have a distinct advantage over others who have not learned to do so. When the composition is in parts the tenor generally comes home at the end of each, and so is the obvious bell to use as observation. In Triples this bell is usually the 7th, but may be one of the others. One-part peals of Triples may, of course, be called equally well from any bell as observation ; or, in Grandsire, by learning the bells before.

In Minor, the calling positions at the lead-ends are named as follows:—

Position of Observation bell at lead-end.	Name of call.	Abbreviation
2nd's	In	I
3rd's	Out	O
4th's	4th's	4th's
5th's	Wrong	W
6th's	Home or Right	H or R

The following is a touch of Bob Minor given by the lead-ends, with calling positions of the tenor:—

120 Bob Minor.	Calling position.	Position at previous lead-end.
23456		
35264		
— 35642	4th's	W
54326		
— 54263	W	H
46532		
— 46325	O	O (or 3-4 up)
62453		
— 62534	I	I (or 2nd's)
23645		
— 23456	H	4th's (or 3-4 down)

The above touch will be seen to include all calling positions. As calls have to be given before they actually take effect, it is desirable to know the position of the observation bell at the previous lead-end; these positions are given above. When learning it is, of course, only necessary to learn the positions at the actual bob lead; the conductor should know that 4th's follows the position Wrong, and Wrong follows Home, etc.*

Touches are frequently given by the bob leads only, the number of each lead from the previous bob lead being given at the side. Here is a 720 of Bob Minor given in this way:—

	23456		Repeat five times, calling a single at the
			end of the 3rd and 6th parts; or in place of the
	23564	1	first bob in corresponding parts in each half. The
	45236	4	letters "P.L." signify that the part-end occurs at
	45362	1	a plain lead. By calling a bob at the first part-
P.L.	34256	4	end, a touch of 120 is produced; without singles,
			the touch will run round at 360.

The calling of any one part of the above, by the tenor, is W, H, W; or, by the 5th, 4th's and twice O

The same 720 in Single Court (a method without 2nd's place at the lead-end) would be:—

	23456		Repeat five times, with singles at the second
			lead in corresponding parts in each half; or in
	64235	3	place of the last bob in corresponding parts. The
	26435	4	calling by the tenor is I, O, I; or, by the 5th,
	63542	1	twice H and 4th's.
P.L.	42356	2	

The above is a very useful standard calling for all legitimate Minor methods. The rule for methods with 2nd's place at the lead-end being to call the tenor in 5-6 without the 5th; and for methods without 2nd's place to call the tenor in 2-3 without the 5th. There are very many variations. In methods with different orders of lead-ends, the bob spacings will not be the same as those given, but the calling positions and bobbed leads will be identical. Three parts will produce a 720 in Treble Bob and Surprise methods.

The correction of mistakes in Minor is largely a matter of individual ability developed by practice. There are very few working bells to look after and, provided the tenors and treble keep right, little else can go wrong. Notice that in the above 720 the tenors ring alternate courses in the 3-4 position (parted) and the 5-6 position (in course), and that they are always the same way in both positions respectively.

* These orders vary for different methods and should be worked out.

The chief danger to guard against is a single shift course by two of the smaller working bells, 2, 3 or 4. Fortunately we are helped in this by the nature of the rows, or "in and out of course" of the changes.

IN AND OUT OF COURSE.

A full explanation of this will be found in Snowdon's "Treatise on Treble Bob, Part II. It is of such importance that a brief explanation is necessary here; and the reader will be left to pursue the subject himself.

All rows can be divided into one of two classes, known as "In Course" or "Positive"; and "Out of Course" or "Negative".

In-Course rows include rounds and all those which can be produced from rounds by changing an even number of pairs of bells.

Examples: 132546 is In Course, since rounds can be produced by changing two pairs, 2-3 and 4-5.

154326 can be changed to rounds by the following changes of pairs: 154236, 152436, 125436, 125346, 123546 and 123456. It will be seen here that six pairs have been changed and this, being an even number, tells us that 154326 is In Course.

Further, those rows produced from 154326 by an even number of changes are also In Course (152436 and 125346).

Out-of-Course rows are those produced from rounds by changing an odd number of pairs. For example, 124356, 123465, etc., and those produced in the first example from 154326 by an odd number of changes, 154236, 125436 and 123546.

If we analyse the first lead of Bob Minor we find that rows are alternately Out of Course and In Course in pairs, as follows:-

123456 I

214365 }
241635 } O

426153 }
462513 } I

645231 }
654321 } O

563412 }
536142 } I

351624 }
315264 } O

132546 }
135264 } I

A bob has no effect on the In and Out of Course. It follows that all rows at the treble leads will be In Course until a single is called; after which they will be Out of Course until a second single is called. For this reason it is only possible to obtain half the number of changes, i.e., 360, with the use of bobs alone in plain methods. (In Treble Bob methods the Out-of-Course rows occur at snap leads of the treble, and singles are not necessary.) All lead-ends before a single, or after an even number of singles, will be In Course; those after an odd number of singles will be Out of Course.

The 30 In-Course lead-ends are those contained in the three courses with the tenors together whose course-ends are 23456, 42356 and 34256; and three courses with the tenors in the 3-4 course, typical lead-ends being 23564, 34562 and 42563. (Or, with the tenors reversed, 32654, 43652 and 24653.)

Similarly, the 30 Out-of-Course lead-ends are those contained in the courses 24356, 32456 and 43256, with the tenors together; and 32564, 43562 and 24563 with the tenors apart.

If these lead-ends are all written down and examined it will be found quite easy to distinguish a large number of them as In or Out of Course on sight. It is particularly easy to recognise the nature of those courses where 5-6 are in their own position; and numbers of lead-ends from the other courses will soon become familiar. Others may be readily recognised by a single change from some well-known lead-end whose nature is already known, e.g., 135246 is Out of Course, being but one change from 135264, the first lead-end of the plain course.

The conductor will thus be able to know if single shifts have occurred, since these put the changes into those of wrong nature.

The use of this knowledge is not confined to Minor; it enables us to recognise the nature of course-ends in Major and on higher numbers.

CALLING—MAJOR.

In orthodox peals of Major the tenors are not separated, so that all such peals are divided into courses, the tenors coming home at each course-end. Thus all calling positions are such that the tenors are not affected, or, if they are, are left in their own "position". Sometimes twin bobs are introduced to part the tenors for one or two leads only.

In Bob Major the calling positions are W (first lead, the tenor dodging in 7-8 up); Before (B) at the end of the parted lead; this

causes the tenors to run in and out and repeat the parted lead ; Middle (M) at the sixth lead-end, the tenor dodging in 5-6 down ; and H at the course-end, when the tenors dodge together behind.

Touches and peals are generally set out by course-ends as shown:—

464 Bob Major.				
23456	W	B	M	H
23564		1		—
52364				—
35264				—
23456	—		—	

or, putting the figure 3 for the three bobs at Home:

23456	W	B	M	H
35264		1		3
23456	—		—	

A short course of five leads is also used. In this bobs are called at the second and third lead-ends, causing the tenors to ring one lead at opposites:—

23456	5th's and 4th's
64523	x

(These are known as "5th's and 4th's" from the position of the tenor at these bobs.)

In Bob Royal and Maximus it is usual to keep all bells above the 6th fixed, so that calling positions are confined to W, M and H.

As in Minor, we should know the position of the observation bell the lead before the call is due ; and, since M, H and W occur at consecutive lead-ends, this is a simpler matter.

The conductor in Major should watch his fixed bells (i.e., tenors and treble). It remains for him to keep check on the five working bells, 2, 3, 4, 5 and 6.

Two sorts of observation may be made:—

- (1) Instantaneous. (2) Continuous.

(1) An instantaneous observation consists in noting some particular change (usually a course-end); or the position of one or more bells at some particular place. Such observations are useful as a check on the calling, but are of no value for correcting mistakes. Further, the appearance of some known part-end, such as 24356 at the half-peal, is no guarantee that the ringing has been correct up to that point. A conductor who knows no more

than a few isolated part-ends may, after a trip, have to let the bells run for a considerable time without knowing whether they are right or not.

(2) Continuous observation is generally done by means of the coursing order, or order in which the bells follow one another down to lead. If we examine a lead of Bob Major we will find that it is 7532468, and that the treble occupies a different place in each lead. It is usual to leave out the fixed bells and start with that bell which follows the seventh, so that the coursing order is, in short, 53246.

It will be found that the calls at the various calling positions affect the working bells as follows:—

Scale of Coursing Orders from P.C. order 53246.

	W	M	H
Bob.	32546	53462	52436
S.	23546	53642	54236

and those positions where 7-8 are involved:—

	B	5th's and 4th's
Bob.	65324	24653
		24635 (S— or — S).

Considering the touch given above by the Course Ends, we see that the coursing orders would be:—

W	B	M	H
	—65324		—63254
			—62534
			—65324
—53624		—53246	

Now if a mistake occurs the conductor has only to call the bells to lead in their correct order after the seventh; making sure that the treble is in the right place, that is, in front of the bell which made 2nd's at the previous lead-end.

Coursing orders may be transposed mentally with very little practice; as an exercise, this may be done when not actually ringing. If this transposition is found too difficult during ringing, the bells in 5-6 should be learned and the other three only transposed.

Note that the coursing orders are always of the same nature at the lead-ends; it is sometimes easier to recognise the nature of the coursing order than that of the natural course-end. For example, the course whose natural course-end is 14352678 has the coursing order 23456, and is therefore In Course.

Coursing orders may be used for arranging, pricking and proving compositions, the transposition being easier than that by natural course-ends.

The conductor should choose his compositions to suit his own needs and the capabilities of his band. Selection of simple compositions at the beginning will bring a band to peal standard sooner than if difficult peals are attempted.

Notice carefully the effects of the calls on the 5-6 bells ; that is, the bells which are in 5-6 at the natural course-ends. A bob W puts the 3rd into 5th's, but does not affect the 6th. A bob Before puts the 4th into 6th's and the 6th into 5th's. A bob M does not affect the 5th, but puts the 2nd into 6th's. A bob H does not affect either of the 5-6 bells.

In the touch given on page 47, we see that the 5th is to be called into 5th's in the last course by a bob W. Thus to call the block of three bobs H, one should call until the 5th runs out and becomes 3rd's place bell. In calling a block of bobs one should never rely on mere counting of courses. Another method of calling this block would be to notice that the 2nd runs in at the first H, and to call it subsequently Out and 4th's ; but it is better to use the 5-6 bells as indicated.

The following is Pritchard's well-known peal of 5,056. The coursing orders are given, in appropriate columns, on the right:—

23456	W	B	H	W	B	H
52364	—	—	—	32546	63254	62534
35264			—			65324
23564			—			63254
62345	—	—	—	32654	43265	42635
36245			—			46325
23645			—			43265
64235	—		—	32465		34625
26435			—			36245
43265	—		—	62345		63425
24365			—			64235
32465			—			62345

Repeat three times, single for last bob H in 2nd and 4th parts. This peal may be started from third or sixth course-ends.

The following peal by E. M. Atkins is one which keeps 5-6 very much in course ; it is not advocated for experienced bands, but rather as a first exercise in mental transposition of coursing orders.

5,376 Bob Major.

23456	W	M	H	W	M	H
43625	S	—	—	23546	23465	
65324		S	—		23564	25634
26354	—		—	56234		
43265	—	—	—	62534	62345	63425

Eleven times repeated, calling bobs for singles at W in all but the 1st and 7th parts, and for singles at M in all but the 1st, 4th, 7th and 10th parts. The 11th part-end is 34256 ; by running a full course from this, with a final bob H, the peal is reduced to 5,040.

It should be noticed that the singles at W are half-way singles, reversing 2-3 ; while those at M occur once in every quarter and reverse 5-6. Since 5-6 are fixed in each part, they constitute a secondary observation. Notice that the singles are called only in parts following part-ends in which the 4th is in fourth's. When 5-6 are right (i.e., 23456 and 32456) call both singles in the following part ; when they are wrong (i.e., 23465 and 32465) call single at M only in the following part.

It will be found that 2, 3 and 4 are in relatively the same coursing order throughout each part, following the first call at W, these orders being :—

Part		Part	
1	234	7	324
2	342	8	243
3	423	9	432
4	234	10	324
5	342	11	243
6	423	12*	432

One part with bobs only, omitting the final bob H, gives a four-course touch of 448 ; three parts, with bobs only, give a quarter-peal of 1,344 changes.

If it is desired to fix 5-6 in four-course blocks without so much work in the coursing position, the following peal may be adopted. This is on much the same plan as the last, and many variations are to be obtained. The reader is left to work out the coursing orders for himself.

5,376 Bob Major.

23456	W	M	H	Eleven times repeated, calling S for bob at W in all but 1st and 7th parts ; and omitting S at M in all but 1st, 4th, 7th and 10th parts. Reduced to 5,040 by running one full course with bob H in lieu of last part, as in previous peal.
46235	—	S	—	
24635	—	—	—	
62435	—	—	—	
43265	S	—	—	

* One course only, if reduced to 5,040.

DOUBLE NORWICH.

The calls in Double Norwich are made at 1, 4 and 6, corresponding to the W, M and H of Plain Bob. There is also a calling position at 5, corresponding in effect to the Before of Bob Major; this brings up the course-end and gives a short course.

In this, and other methods* with 6th place bobs, the scale from the plain course coursing order 53246 is as follows:—

1	4	5	6
(Tenor In)	(Tenor 5th's)	(Tenor H)	(Tenor Out)
Bob 25346	53624	32465	54326
S 23546	53642	—	54236

It will be seen that the same three bells are affected as in the corresponding calls in Plain Bob, only in a different manner. The effect of singles is the same.

The following peal keeps 5-6 fixed in four-course blocks, and is on exactly the same plan as that given for Bob Major:—

5,376 Double Norwich Court Bob Major.

23456	1	4	6	Eleven times repeated, calling S for bob at 1 in all but 1st and 7th parts; and omitting S at 4 in all but 1st, 4th, 7th and 10th parts.
34625	S	S	—	Reduced to 5,040 by calling bob at 6 (one course only) in lieu of last part.
46325			—	
63425			—	
24365	—		—	

The following two peals are given for the simplicity of construction and coursing orders; in the former, 5-6 are very much in course; in the latter, they course for four of the five short courses.

5,184 Double Norwich Court Bob Major (Rev. E. Bankes James).

23456	5	6	Eleven times repeated, with single at 1 in the second course of corresponding parts in each half; or at 4 in the last course of corresponding parts.
42635	—		
64523	—		
65423		S	
46352	—		
34265	—		

The above may be reduced to 5,024 by calling the 1st and 7th (or any two corresponding parts in each half) as follows:—

* In other methods, the calling positions will not necessarily come in the same order, therefore the number of the lead-end will not apply. The effect on the coursing order when the tenor is called in these positions will be the same.

23456 1 5 6

42635	—					
64523	—					
45263	—			S		
24356	—					

5,088 Double Norwich Court Bob Major (C. W. Woolley).

23456 1 4 5 6

36452	—	—	—			
43265				—		
24536				—		
52643				—		
65324				—		
45623		—				
35426		—				
52436	—					
34256	—			—		

The above may be reduced to 5,008 by calling one part as follows:—

23456 1 4 5 6

52643	—	—	4		
24653	—				
35426	—	—			
52436	—				
34256	—			—	

SPEED IN RINGING.

The speed at which tower-bell ringing is done is governed largely by the time taken by the heavy bells to turn. In handbell ringing there is no such limitation, and it is usually done very much faster than tower-bell ringing; it depends on the pace of the beat, which is largely controlled by the tenors.

Up to a point, it is more easy to obtain and keep a good and lively beat with fast ringing than with slow. The important thing in ringing, however, is rhythm rather than speed. Every band should therefore concentrate on rhythm and good ringing, and regard the time taken for peals as a matter of interest only, and not one of overriding importance. No band should aim at either unusually quick or slow ringing. The ringing of faster and faster

peals is a sure sign that the methods being attempted are too easy, and that something more difficult should be tried.

Handbell ringing is usually done at a speed which is far too fast for true appreciation by an outside audience, particularly when such audience is composed of non-ringers. This does not generally matter, since it is not usually done for performance in public. Very fast ringing is mentally more tiring, and mistakes are much more difficult to correct ; very slow ringing, on the other hand, may prove wearisome and lead to carelessness. The right speed is a suitable mean between the two.

Handbell ringing, after all, is done essentially for pleasure ; and each individual band will be the best judge of the speed and quality which affords them the greatest satisfaction.

INDEX

GENERAL

Backward hunting, 36, 40
 Calls, 13-14, 46, 48-49
 Change-ringing, elements, 5
 Conducting, 42-44, 46-52
 Course bells, 8, 24-25, 41
 Coursing order, 14, 18, 27, 40, 48-50
 Dodges, 20-22, 28
 — caused by place-making, 26, 28-30, 32, 36
 Failure, some causes, 23-24, 40-41, 44, 53
 In and out of course, 45, 48

Method construction, 26, 28-29, 32, 36
 Observation bells, 43, 47
 Odd bell methods, 27, 43
 — Grandsire, 25, 27, 43
 — Stedman, 27-28, 41-42
 Place-making, 26, 29-30, 32, 35-36
 Royal and Maximus, 19, 31, 47
 Spacing and leading, 4
 Speed, 52-53
 Treble, watching, 18, 31, 40
 Treble Bob Methods, 25, 26-27, 32, 46

SIX-BELL RINGING

Plain hunting course, 5
 — Positions of pairs, 7-10
 Bob Minor, 10-11
 — Plain course, 11-12, 14-17
 — Bobs and singles, 13, 17
 Calling positions, 43-44
 Court place methods, 25, 31
 — Single Court, 25, 44
 Surprise, Cambridge, 32-33
 — Touches, 43-44
 — Treble Bob and Surprise, 44

EIGHT-BELL RINGING

Plain hunting course, 18-19
 Bob Major, Plain course, 19-22
 — Bobs and singles, 23
 — 5ths and 4ths, 19, 47
 — Course bells in, 24-25
 Calling positions, 46-47, 51
 Peals, 49-52
 Plain Major methods, 31
 D.N.C.B., 25, 28, 29-31, 34, 51-52
 Surprise methods, 32 onwards
 Touches, 47
 Treble Bob methods, 26-27



Central Council of Church Bell Ringers 1986