# Ringing Elementary Minor Methods

# on Handbells

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# CONTENTS

# INTRODUCTION

The writer believes in instant learning.

In principle, all one needs to do in order to ring a pair of handbells to even the most advanced methods on any number of bells is:

1. While ringing the two bells, in the correct places, in a given row, work out the two places relevant to the next row.

2. Repeat 1 for subsequent rows.

The main difficulty lies in working out the two places in the next row.

For many methods, on six bells, the working out is made much easier if each ringer thinks of ringing his pair of bells to one of just three simple patterns. Every now and then this pattern suffers an interruption which probably causes the pair to continue with one of the other two patterns. The more difficult the method the more frequent, and the greater the variety of, the interruptions.

The prescribed learning programme is:

1. Learn the three patterns                          (2 minutes each)

2. Master the ringing of the three patterns          (3 minutes each)

3. Master the effects of the different interruptions  (10 minutes each)

A plain course of Bob Minor, which uses one kind of interruption, can be mastered by many people within 25 minutes of knowing anything about ringing at all.

Chapter 1 explains some essential terminology for absolute beginners and it can be largely ignored by anyone with tower bell experience. Chapter 2 goes as far as a plain course of Bob Minor and Chapter 3 deals with touches and further simple methods. Chapter 4 introduces several more methods, the most difficult of which is Cambridge Surprise.

# CHAPTER 1

## INFORMATION FOR NOVICES

The terminology introduced in this chapter applies generally to change ringing on any number of bells but all specific examples relate to ringing on six bells.

### 1.1 Absolute Basics

Bells are conventionally numbered as 1, 2, 3, 4, 5 and 6 in ascending order of weight. The lightest bell, 1, is called the *treble*; the heaviest the *tenor*. The notes of the bells descend in pitch, from treble to tenor, in a musical scale. The tenor's note is usually the tonic of the scale.

Handbells are grouped in pairs and with six bells one of each of the pairs 1-2, 3-4 and 5-6 would be allocated to each of three ringers.

A ringer holds the heavier bell of his pair in his left hand and the lighter in his right. Ringing is easiest if ringers sit so that going clockwise round a rough circle one would meet the bells in ascending numerical order.

A bell has two rest positions, down about waist level and up about shoulder level. There are two possible *strokes*:

*Handstroke* is ringing a bell from down to up.

*Backstroke* is ringing a bell from up to down.

### 1.2 Rows, Places and Changes

A *row* is the term given to any permutation of 123456. When a row is rung, each bell rings the same stroke.

The position of a bell in a given row is known as its *place*. Thus in the row 135264 bell 2 occupies 4th's place.

The order of the bells in a row may be altered by means of a *change* to produce a different row. A fundamental rule of change ringing stipulates that all changes must involve the interchanging of only adjacent pairs of bells. Here are some examples of changes:

$$\left.\begin{array}{l} 124365 \\ 124356 \end{array}\right\}$$ — one adjacent pair, 6-5, interchanges

$$\left.\begin{array}{l} 132546 \\ 135264 \end{array}\right\}$$ — two adjacent pairs, 2-5 and 4-6, interchange

$$\left.\begin{array}{l} 241635 \\ 426153 \end{array}\right\}$$ — three adjacent pairs, 2-4, 1-6 and 3-5, interchange

### 1.3 Place Notation and Method Definition

The *place notation* of a given change is a list of the places in which bells are not disturbed by that change. The place notations of the three changes above are:

$$1234, \quad 12 \quad \text{and} \quad \mathsf{X}$$

These are known as *one-two-three-four*, *one-two* and *cross* respectively. Cross refers to the special case of the change which disturbs the bells in all places.

A sequence of changes which conforms to certain rules is said to define a *method*. Methods rung on six bells are known as *minor* methods. Here is an example:

$\mathsf{X}$ 16 $\mathsf{X}$ 16 $\mathsf{X}$ 16 $\mathsf{X}$ 16 $\mathsf{X}$ 16 $\mathsf{X}$ 12  is the method known as Plain Bob Minor.

Starting with some row and applying such a sequence of changes will result in a sequence of rows. Starting with a different row but applying the same sequence of changes will result, generally, in a sequence of different rows. In the examples below, the sequence of changes just described is applied first to the row 135264 and then to the row 164523:

|  |  |  |  |
|---|---|---|---|
| $\mathsf{X}$ | 135264 | $\mathsf{X}$ | 164523 |
| 16 | 312546 | 16 | 615432 |
| $\mathsf{X}$ | 321456 | $\mathsf{X}$ | 651342 |
| 16 | 234165 | 16 | 563124 |
| $\mathsf{X}$ | 243615 | $\mathsf{X}$ | 536214 |
| 16 | 426351 | 16 | 352641 |
| $\mathsf{X}$ | 462531 | $\mathsf{X}$ | 325461 |
| 16 | 645213 | 16 | 234516 |
| $\mathsf{X}$ | 654123 | $\mathsf{X}$ | 243156 |
| 16 | 561432 | 16 | 421365 |
| $\mathsf{X}$ | 516342 | $\mathsf{X}$ | 412635 |
| 12 | 153624 | 12 | 146253 |
|  | 156342 |  | 142635 |

Notice that if the 12 were replaced by a 16 the sequence of changes would cause repetition of rows. Thus in the left-hand example, the row 135264 would be repeated.

### 1.4 Rounds and Round Blocks

*Rounds* is the term given to the repeated ringing of the special row 123456. The highest pitched bell, 1, sounds first and the lowest pitched, 6, last.

Suppose a sequence of changes is applied to some initial row and all the generated rows are different and the last of them is the same as the initial row. The block of rows, consisting of the initial row taken together with the generated rows, constitutes a *round block*. Round blocks necessarily consist of rows which are all different save the first and the last which are the same. See, for example, the round block in section 2.1.

As a rule one rings only round blocks. Furthermore, it is conventional to begin and end with rounds.

### 1.5  Open Handstroke Leads

Rows are rung alternately at handstroke and backstroke. It is conventional to ring without a delay between handstroke and backstroke but to have a slight pause between backstroke and the following handstroke. The effect is to hear twelve evenly spaced notes, then a pause, approximately equivalent to a thirteenth silent bell, and then twelve more bells. This is known as ringing *open handstroke leads*.

### 1.6  Ringing a Row in Practice

To ring a row, a ringer's first problem is determining the two places, in that row, in which his bells should ring. This problem is dealt with in later chapters. The next problem is actually ringing that row.

Suppose a handstroke row is just about to be rung and a ringer knows his bells are in 3rd's place and 5th's place. He may think 'I am in 3,5' but more likely thinks just '3,5'. Immediately before the row is rung all the bells are in the down position. The ringer then observes, mostly by listening, the six bells rising and makes sure that the 3rd and 5th bells to ring are his. A novice would probably count (to himself) up to six, as the bells ring, and emphasize his own places as:

'one, two, **three**, four, **five**, six'

More experienced ringers do this almost instinctively, perhaps just thinking:

'ting, ting, **me**, ting, **me**, ting'

It is obviously essential to count from the right place; glancing round to make sure that all the bells are down, or all up, at the beginning of each row is a useful check.

# CHAPTER 2

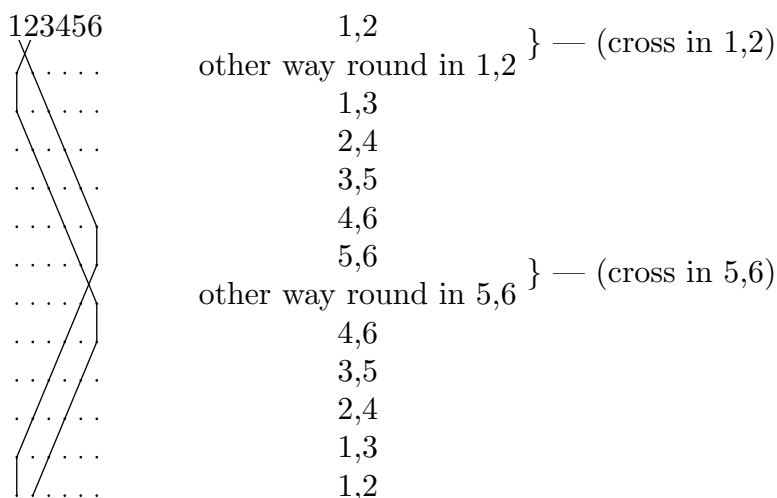## THREE PATTERNS AND AN INTERRUPTION

While ringing a given row one has to work out the two places relevant to the next row. The working out is minimized if three simple patterns are learnt.

### 2.1 The First Pattern and the Starting Convention

Consider the sequence of changes  X 16 X 16 X 16 X 16 X 16 X 16  applied to the row 123456:

$$
\begin{array}{c}
123456 \\
214365 \\
241635 \\
426153 \\
462513 \\
645231 \\
654321 \\
563412 \\
536142 \\
351624 \\
315264 \\
132546 \\
123456
\end{array}
$$

This is a simple round block. The pattern relating to the pair of bells 1-2 can be represented by the two lines in the skeleton shown below. What the ringer of the 1-2 pair actually thinks when ringing each row is shown at right:

123456

1,2
other way round in 1,2 } — (cross in 1,2)
1,3
2,4
3,5
4,6
5,6
other way round in 5,6 } — (cross in 5,6)
4,6
3,5
2,4
1,3
1,2

This pattern is known by various names. Sometimes it is called the *one-bell-in-between pattern* because most of the time just one bell rings between the two bells of the pair. Here it will be called the *1,2 pattern* after the places where the bells cross 'on the front'. (It might have been called the 5,6 pattern instead but it is only on six bells that the other crossing point for the 1,2 pattern is 5,6.)

Notice:

1. The ringer thinks only about his two places in each row.

2. The 'working out' is mostly just adding one to each place (as in the sequence  1,3  2,4  3,5  etc.) or subtracting one from each place (as in  4,6  3,5  2,4  etc.).

3. The difficulty is in turning round either at the back (crossing in 5,6) or at the front (crossing in 1,2). Even this is clear enough if one notes that one cannot go from 4,6 to 5,7 since there is no 7th's place.

4. Always think of the lower-numbered place first. Thus do not think '5,6 then 6,5' but '5,6 then other way round in 5,6'. It is vital to ring the correct bell first.

To get the feel of the cyclical nature of this pattern it is advisable to repeat the round block several times without stopping.

There is a conventional way of starting off. The round rung before the very first change is rung at backstroke. This means from up to down. Since it is natural to hold the bells in the down position before starting it is usual to ring two rounds before the first change. The first round, at handstroke, gets the bells up and the second round is the conventional backstroke round before the first change.

So in practising this round block — ringing it say four or five times without stopping — the ringer of 1-2, at the very beginning only, rings thus:

<div align="center">
up in 1,2<br>
down in 1,2<br>
other way round in 1,2<br>
1,3<br>
2,4<br>
etc.
</div>

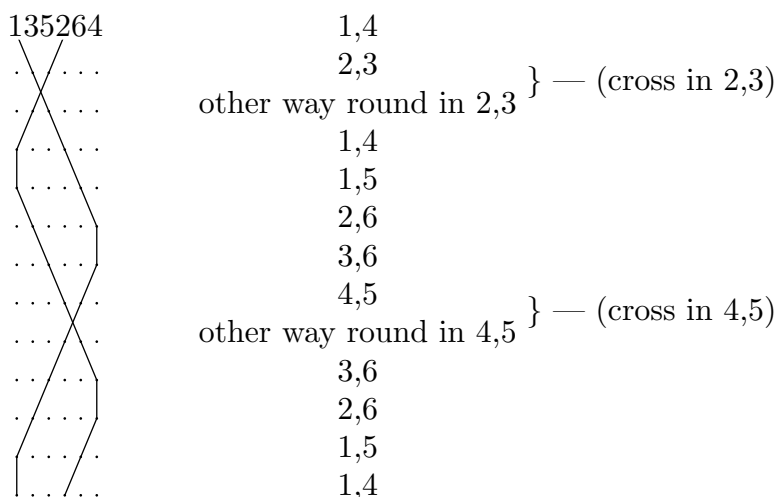but subsequent round blocks should follow without any such duplication of rounds.

The importance of good rhythm when ringing handbells cannot be emphasized too greatly. Subject only to the open handstroke leads, the bells should be evenly spaced and sound with uniform loudness. From the outset try to achieve rhythmical ringing. At this stage, it should take about 25–30 seconds to ring the round block.

## 2.2 The Second Pattern

The second pattern is here called the *2,3 pattern* and is characterized by crossings in 2,3 and 4,5.

For practical purposes the sequence of changes used in the previous section to generate a round block may be applied to the row 135264. The pattern now followed by the ringer of 1-2 is that followed by the bells 1 and 4 in the previous round block. This is the 2,3 pattern. It is shown below and again the thoughts of the ringer are shown at right:

<pre>
135264                1,4
· ⟨ · · ·             2,3        }
· ⟨ · · ·      other way round in 2,3  } — (cross in 2,3)
· · ⟨ · ·             1,4
· · · · ·             1,5
· · · · ·             2,6
· · · · ·             3,6
· · · ⟨ ·             4,5        }
· · · ⟨ ·      other way round in 4,5  } — (cross in 4,5)
· · · ·               3,6
· ⟨ · · ·             2,6
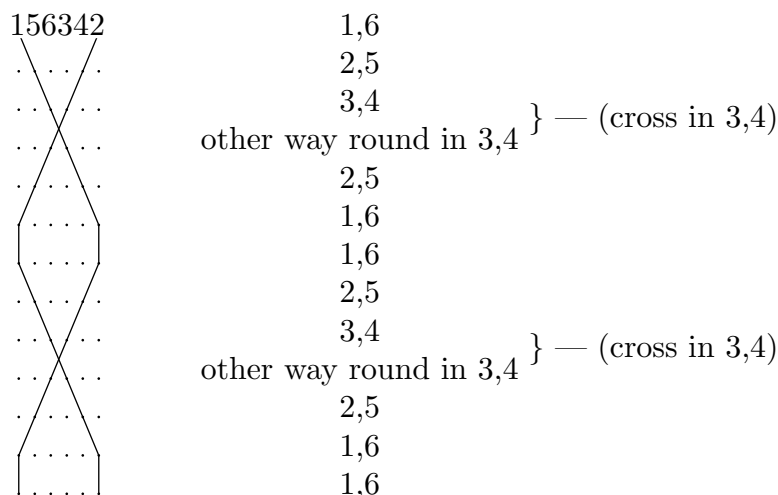· · · ·               1,5
· · ⟨ · ·             1,4
</pre>

This pattern is sometimes known as the *three-bells-in-between pattern* since for two rows at a time there are three bells between the two bells of the pair — 1,5 to 2,6 and 2,6 to 1,5. On higher numbers of bells this would be for a greater number of consecutive rows. Six is too small a number of bells for the effect to be noticeable; one spends most of the time turning round.

Again, to get the feel of the cyclical nature of the pattern, the block should be repeated several times without stopping. To do this, and for practice purposes only, it is worth flouting the starting convention. All ringers start by holding their bells up, then ring down in the order 135246 and go straight into changes. The block should be repeated until it can be rung twice in succession without mistake and with good rhythm.

### 2.3 The Third Pattern

The only other pattern is here called the *3,4 pattern*. It is characterized by crossings in 3,4 only.

The same sequence as before may be applied to the row 156342. The pattern now followed is that followed by bells 1 and 6 in the original round block. This is the 3,4 pattern:

```
156342                        1,6
.\../.                        2,5
.. X ..                       3,4          } — (cross in 3,4)
.. X ..               other way round in 3,4
./...\.                       2,5
....                          1,6
....                          1,6
.\.../.                       2,5
.. X ..                       3,4          } — (cross in 3,4)
.. X ..               other way round in 3,4
./...\.                       2,5
....                          1,6
|....|                        1,6
```

The 3,4 pattern is sometimes called the *symmetrical pattern* (but this is so only on 6 bells). This is the easiest pattern to ring. The only difficulty is remembering to ring in 1,6 twice.

Again, to get the feel of this pattern, the block should be rung several times and the starting convention may be flouted as before.

### 2.4 Why there are not Fifteen Patterns

The sequence of changes we have been using can be applied to any row. The ringer of 1-2 (or indeed of any pair) could in theory find himself starting in any of the fifteen pairs of places:

<p style="text-align:center">1,2  1,3  1,4  1,5  1,6  2,3  2,4  2,5  2,6  3,4  3,5  3,6  4,5  4,6  5,6</p>

and we have considered only three of these; 1,2 1,4 and 1,6. On inspection it will be found that bells starting in any of the other twelve pairs of places nevertheless follow one of the three patterns, albeit starting at what may be an unexpected point in the pattern.

Consider how three ringers would tackle the round block written out in section 2.1. The ringer of 1-2 rings the 1,2 pattern described in that section. The ringer of 3-4 rings the 3,4 pattern. The ringer of 5-6 also rings the 1,2 pattern but starts this pattern at the crossing in 5,6. There is no reason why all three ringers should not be novices.

In the block beginning 156342, described in section 2.3, the ringer of 1-2 follows the 3,4 pattern and the ringers of 3-4 and 5-6 both follow the 2,3 pattern. The ringer of 5-6 picks up the pattern at the second half of the crossing in 2,3 and the ringer of 3-4 starts with the second half of the crossing in 4,5.

### 2.5 Interrupting the Patterns

If one starts with 123456 and applies the sequence X 16 X 16 X 16 X 16 X 16 X 12, mentioned in section 1.3, five times one obtains:

| | | |
|---|---|---|
| $\overline{123456}$ | $\overline{156342}$ | $\overline{142635}$ |
| 214365 | 513624 | 416253 |
| 241635 | 531264 | 461523 |
| 426153 | 352146 | 645132 |
| 462513 | 325416 | 654312 |
| 645231 | 234561 | 563421 |
| 654321 | 243651 | 536241 |
| 563412 | 426315 | 352614 |
| 536142 | 462135 | 325164 |
| 351624 | 641253 | 231546 |
| 315264 | 614523 | 213456 |
| $\underline{132546}$ | $\underline{165432}$ | $\underline{124365}$ |
| 135264 | 164523 | 123456 |
| 312546 | 615432 | |
| 321456 | 651342 | |
| 234165 | 563124 | |
| 243615 | 536214 | |
| 426351 | 352641 | |
| 462531 | 325461 | |
| 645213 | 234516 | |
| 654123 | 243156 | |
| 561432 | 421365 | |
| 516342 | 412635 | |
| $\underline{153624}$ | $\underline{146253}$ | |

This is a round block of 60 changes (61 rows, if one counts the two rounds) and is known as a *plain course* of the method Plain Bob Minor.

The horizontal lines divide the course into five blocks known as *leads*. The lines indicate where the change whose place notation is 12 is used instead of 16. It is at these points that the interruptions occur.

The ringer of 1-2 starts by following the 1,2 pattern, as described in section 2.1, but instead of a 16 completing the round block of twelve changes, there is a 12 which yields the row 135264. In section 2.2 it was shown that starting from this row requires the ringer of 1-2 to follow the 2,3 pattern. The next 12 yields 156342 mentioned in section 2.3 and the ringer of 1-2 now follows the 3,4 pattern.

The next 12 yields 164523. The ringer of 1-2 finds his bells in 1,5 and will continue 2,6  3,6  cross in 4,5  (following the 2,3 pattern). The penultimate 12 yields 142635; 1-2 are in 1,3 and will continue  2,4  3,5  4,6  cross in 5,6  (following the 1,2 pattern). The final 12 yields rounds and that is all.

### 2.6  How to Cope with the Interruptions

A major difficulty is knowing just when the interruptions occur. It is disastrous to try to cope with a 12 a couple of changes early.

In the Plain Bob method, just described, the interruptions occur always and only at *treble leads*. Treble leads consist of two consecutive rows; the first row is always rung at handstroke and the second row always at backstroke. The second row is obtained from the first by invoking the change 12. In both rows the treble rings in first place — hence the term treble lead.

In principle, each ringer, ringing the plain course, should do the following:

1. Ring one of the three patterns until he notices the treble leading at handstroke.

2. Note particularly the two places in which his bells are when ringing that handstroke row.

3. Having noted these two places, work out the two places into which the change 12 will put his bells the following backstroke.

4. Ring that backstroke row and decide which new pattern is to be rung and where on it to start.

5. Ring the new pattern until the next treble lead.

Novices find spotting the treble lead difficult even when ringing 1-2. A useful tip for beginners is to use the ears for placing the bells correctly in each row and to keep both eyes glued to the treble.

Actually working out the effect of a 12 is relatively easy. The rules are:

1. A bell in 1 or 2 stays put (for the moment, it will always be the treble in 1 anyway.)

2. A bell in 3 moves to 4 and vice versa.

3. A bell in 5 moves to 6 and vice versa.

4. Symbolically the change can be represented by IIXX.

Having invoked that change one has to decide on the new pattern — it may in fact be the old pattern but starting in a different place. Once one is familiar with the places in the three patterns this decision is not difficult. The problem is 'which way to go'. For example, if one lands in places 3,6 it is not difficult to see that this is the 2,3 pattern but does one continue:

$$\text{2,6 \quad 1,5 \quad 1,4 \quad cross in 2,3} \qquad \text{or} \qquad \text{cross in 4,5 \quad 3,6 \quad 2,6 \quad 1,5 ?}$$

If in doubt, work out the effect of a cross — the next change. A cross causes all three pairs to interchange so 3,6 could not be followed by 2,6 since the bell in 6 is undisturbed. It may be helpful to think of a cross as XXX. Once this change has been negotiated the new pattern will be rapidly established.

## 2.7  Practising the Plain Course of Bob Minor

The pair 1-2 is probably the easiest to ring to a plain course of Bob Minor. If the ringer keeps an eye on his right hand, ringing the treble, the treble leads are easy to spot. Working out the effect of a 12 is quite easy especially since only one bell need be thought about, because the treble must stay in 1. A novice should be able to cope with 1-2 to a plain course within half an hour of starting ringing.

In some ways the 5-6 is an even easier pair to ring, since for four of the five leads the 1,2 pattern is rung. On the other hand the treble leads are a bit harder to spot.

The 3,4 is undoubtedly the hardest pair to ring to a plain course.

The most important extra matter to watch when practising is to keep the two bells of one's pair the right way round.

It is sometimes useful, to begin with, to try each lead several times as suggested in sections 2.1, 2.2 and 2.3. The procedure of 'trying again from the last treble lead' is eminently sensible on handbells when learners are practising. It is, of course, illegal in terms of the rules of ringing.

Aim always at good rhythmical ringing. A plain course should take less than two minutes to ring.

## 2.8  Summary of the Three Patterns and the Interruption

The three patterns are:

1,2:  cross in 1,2  1,3  2,4  3,5  4,6  cross in 5,6  4,6  3,5  2,4  1,3  repeat

2,3:  cross in 2,3  1,4  1,5  2,6  3,6  cross in 4,5  3,6  2,6  1,5  1,4  repeat

3,4:  cross in 3,4  2,5  1,6  1,6  2,5  cross in 3,4  2,5  1,6  1,6  2,5  repeat

The 12 change (IIXX) has the following effects:

The bells in 1 and 2 stay put;
The bell in 3 goes to 4; the bell in 4 goes to 3;
The bell in 5 goes to 6; the bell in 6 goes to 5.

The change which comes immediately after a 12 is a X (XXX) and it has the following effects:

The bell in 1 goes to 2; the bell in 2 goes to 1;
The bell in 3 goes to 4; the bell in 4 goes to 3;
The bell in 5 goes to 6; the bell in 6 goes to 5.

so:

Add one to an odd number and subtract one from an even number.

# CHAPTER 3

## MORE ABOUT INTERRUPTIONS

At this stage it is assumed that the reader can ring a plain course of Plain Bob. If he can ring each of the three pairs of bells to the five leads of the course then he can cope with all fifteen possible ways of negotiating a 12.

It will be abundantly clear, by now, that ringing the three patterns is straightforward. The two principal difficulties lie in working out what to do at, and just after, the treble leads and noticing when the treble is leading. A third difficulty is making sure one's two bells stay the right way round.

So far, the only interruptions have been at treble leads and have been caused only by the change 12. This chapter goes further and discusses:

1. More changes that can cause interruptions.

2. The problem of interruptions occurring elsewhere than at treble leads.

### 3.1  Other Interruptions at Treble Leads; Touches and Extents

The change 12 is just one of three which are allowed at a treble lead in Plain Bob. The other two possibilities are:

> 14 (known as a *bob*)      and      1234 (known as a *single*)

When a treble lead approaches, one of the ringers, known as the *conductor*, may call 'bob' or 'single'. In such cases, one's pattern is interrupted by a 14 or a 1234 instead of the normal 12. The 12 is sometimes referred to as a *plain*, but this word is never called. A plain is what happens when the conductor keeps quiet.

The reason for having bobs and singles is to enable round blocks longer than 60 changes to be rung. It is essential, therefore, to be able to deal with these other interruptions.

A *composition* may be thought of as an arrangement of bobs, plains and singles which, occurring at successive treble leads, defines a round block. Since, in Plain Bob, one always rings the sequence X 16 X 16 X 16 X 16 X 16 X between treble leads, one may represent a round block by saying only what happens at the treble leads. The following compositions use B for bob, S for single and P for plain. In each case, the first B or P comes at the end of the first lead and subsequent B, P or Ss come at intervals of twelve changes. The round blocks consist, therefore, of twelve times as many changes as there are letters in the composition.

1.  60 changes  PPPPP  (the plain course)

2. 120 changes  BPPPB  BPPPB

3. 120 changes  PPPPS  PPPPS

4. 360 changes  BPPPB  BPPPP  BPPPB  BPPPP  BPPPB  BPPPP

The bunching into groups of five letters is just to make the compositions more readable. Note that if the last P in the 360 is replaced by an S and the 360 changes repeated, one will have a round block of 720 changes. A round block which involves *calls* (bobs or singles) is known as a *touch*. The longest touch possible on six bells is 720 changes and such a touch is known as an *extent*.

The onus is on the conductor to call 'bob' or 'single' in the right places in a touch. It is clearly vital not to make a call at what should be a plain. It is also important, when there should be a call, not to be too late. It is conventional on tower bells to call two rows before the treble lead. In the writer's view it is not necessary on handbells to give so much warning because, when ringing by place notation, one does not start working out a given row until actually ringing the previous row.

### 3.2 How to Cope with Bobs and Singles

Leaving aside the job of the conductor, ringing a touch is hardly more difficult than ringing a plain course in the way described in section 2.6. Thus, one rings one of the patterns until the treble leads at handstroke. Then, unless the conductor has called 'bob' or 'single', one negotiates a 12. If the conductor calls a bob or a single one negotiates a 14 or a 1234 instead.

Whatever happens the following rules apply at a treble lead:

1. Notice the two places in which one's bells ring in the handstroke row.

2. Work out the two places into which the 12, 14 or 1234 will put the bells the following backstroke.

3. Ring that backstroke and decide on the new pattern.

The problems of noticing the treble lead, noting the two places at handstroke and picking up the correct pattern after the backstroke are just as before. The only difference from a plain course is that one has to be able to work out the effect of a 14 or 1234.

At a 14:

1. A bell in 1 or 4 stays put.

2. A bell in 2 moves to 3 and vice versa.

3. A bell in 5 moves to 6 and vice versa.

4. Symbolically the change can be represented by IXIX.

At a 1234:

1. A bell in 1, 2, 3 or 4 stays put.

2. A bell in 5 moves to 6 and vice versa.

3. Symbolically the change can be represented by IIIIX.

Different ringers work out the consequences of a 12, 14, 1234 or indeed any change at all in different ways. Some conjure up a picture such as IXIX and visualize their bells sitting on two of the six points at the top and then slide the bells down to the bottom. Other people would just think, in this case, of the places 1 and 4 being undisturbed and 2,3 and 5,6 interchanging.

With practice, the problems of working out the effect of an interruption and picking up the new pattern all become easier. In early practice sessions there is much to be said for attempting 360s or extents and every time the ringing breaks down starting afresh from the last treble lead before the collapse. To assist with this, the following alternative way of writing out the fourth composition given in section 3.1 is provided. It is a list of the backstroke rows at the treble leads:

|  |  |  |
|---|---|---|
| $\underline{23456}$ |  |  |
| $-\overline{23564}$ | $-\overline{34562}$ | $-\overline{42563}$ |
| 36245 | 46325 | 26435 |
| 64352 | 62453 | 63254 |
| 45623 | 25634 | 35642 |
| $-45236$ | $-25346$ | $-35426$ |
| $-\overline{45362}$ | $-\overline{25463}$ | $-\overline{35264}$ |
| 56423 | 56234 | 56342 |
| 62534 | 63542 | 64523 |
| 23645 | 34625 | 42635 |
| $\underline{34256}$ | $\underline{42356}$ | $\underline{23456}$ |

These backstroke rows are sometimes known as *lead heads*. In each case the treble has been omitted since it is necessarily at the front. The dashes conventionally represent lead heads produced by bobs. The horizontal lines divide the touch into six, so-called, *courses*. One may notice that the work of the 5-6 pair repeats every 120 changes.

After some hours' experience a novice should be able to manage an extent without making any mistakes. At this stage a *peal* may be attempted — this consists of seven consecutive extents amounting to 5040 changes. No backtracking or notes are allowed.

## 3.3  More Methods; Interruptions at other than Treble Leads

Before continuing with other methods, consider six features which apply to all touches of Plain Bob Minor:

1. Touches consist of a number of blocks, of equal length, known as leads.

2. The first row of each lead is known as the lead head. It is rung at backstroke and the treble occupies first place.

3. The first row of the first lead is 123456.

4. The last row of each lead is known as the *lead end*. It is rung at handstroke and the treble occupies first place.

5. The changes between the first and last row of every lead are the same. These changes ensure that the treble, which starts in first place, also ends in first place. Furthermore, the sequence of places occupied by the treble in the second half of a lead is the reverse of the sequence of places occupied in the first half.

6. Just one change alters the last row of one lead into the first row of the next, but this may be one of three possibilities. Each possibility is one-something which ensures that the treble is in first place for the two rows. This pair of rows is known as the treble lead.

The rules of change ringing mean that these features apply to (almost) all methods on six bells. The methods are said to be treble dominated. Touches in these methods have treble leads at regular intervals and within each lead the treble occupies a sequence of places which is symmetrical about the halfway point in the lead.

So much for the points that methods have in common. The points which distinguish a particular method from all others are:

1. The sequence of changes which defines a lead of the method. These are the changes between the first and last row of each lead.

2. The three possible changes which may occur at a treble lead. These are the plain, bob and single of the method.

Once these points are settled a method is defined. In the following definitions of three minor methods the term 'lead end' is used in an alternative way and has the same meaning as 'plain':

Plain Bob Minor:

Lead:        X 16 X 16 X 16 X 16 X 16 X

Lead End: 12      Bob: 14      Single: 1234

Little Bob Minor:

Lead:        X 16 X 14 X 16 X

Lead End: 12      Bob: 14      Single: 1234

Single Court Bob Minor:

Lead:        X 14 X 16 X 16 X 16 X 14 X

Lead End: 16      Bob: 14      Single: 1456

A plain course of each method can be formed by taking the changes which define a lead together with the change which defines the lead end and applying the combined sequence of changes five times over to the row 123456.

The plain course of Plain Bob was given in section 2.5. The plain course of Little Bob is:

| | | |
|---|---|---|
| $\overline{123456}$ | $\overline{135264}$ | $\overline{156342}$ |
| 214365 | 312546 | 513624 |
| 241635 | 321456 | 531264 |
| 426153 | 234165 | 352146 |
| 462135 | 243156 | 325164 |
| 641253 | 421365 | 231546 |
| 614523 | 412635 | 213456 |
| $\underline{165432}$ | $\underline{146253}$ | $\underline{124365}$ |
| 164523 | 142635 | 123456 |
| 615432 | 416253 | |
| 651342 | 461523 | |
| 563124 | 645132 | |
| 536142 | 654123 | |
| 351624 | 561432 | |
| 315264 | 516342 | |
| $\underline{132546}$ | $\underline{153624}$ | |

The horizontal lines again divide this into leads. The leads happen to be shorter than in Plain Bob but all the six features, mentioned above, still apply. They also apply to a plain course of Single Court.

The sixth feature noted that the change at a treble lead must be a one-something. In all normal methods the three possibilities allowed are either:

Lead End: 12     Bob: 14     Single: 1234     as in Plain Bob

or:

Lead End: 16     Bob: 14     Single: 1456     as in Single Court Bob

All three patterns, described in Chapter 2, are associated with an alternating sequence of Xs and 16s. Whenever a 16 is replaced by something else there is an interruption. In Plain Bob there is an interruption at every lead because instead of a 16 there is a 12, 14 or 1234. In Little Bob, there is an interruption in the middle of each lead as well, because of the 14. In Single Court there are two interruptions by 14s in each lead but, except when a call is made, there is no interruption at the treble lead since a plain is a 16 in this method.

Actually dealing with a 14 should present no difficulties to anyone who can cope with a bob in Plain Bob — it is the same change. The problem is knowing when the 14 occurs, since the interruptions are no longer confined to treble leads.

### 3.4 Knowing when the Interruptions Occur

To ring a pair of handbells to a plain course or touch of Little Bob, it is as essential to notice the middle of each lead as it is to notice the treble leads.

A glance at the plain course should convince the reader that the treble reaching 4th's place heralds a 14 in the same way as the treble reaching the lead indicates a treble lead. Most books simply say that all one need do is notice when the treble reaches 4th's place. This is perfectly true — but since noticing the treble leading is difficult enough for most novices, asking someone to spot the treble reaching 4th's place is rather like asking him to ring a third bell.

Knowing what the treble is doing all the time is a skill to aim at but here is a way that beginners find much easier. Consider a lead of Little Bob, together with the subsequent treble lead, and notice in which stroke each row is rung and the changes between the rows:

| | | | |
|---|---|---|---|
| Backstroke | (ring down) | X | 164523 |
| Handstroke | (ring up) | 16 | 615432 |
| Backstroke | (ring down) | X | 651342 |
| Handstroke | (ring up) | 14 | 563124 |
| Backstroke | (ring down) | X | 536142 |
| Handstroke | (ring up) | 16 | 351624 |
| Backstroke | (ring down) | X | 315264 |
| Handstroke | (ring up) | 12 | 132546 |
| Backstroke | (ring down) | | 135264 |

The actions of each ringer's hands are shown in brackets. Each ringer effectively counts the rows by feeling the ups and downs of his arms. One 'up and down' corresponds to two rows — handstroke and backstroke.

Suppose the lead head, 164523, has just been rung. Each ringer will have negotiated the treble lead and decided on his (probably) new pattern. His thoughts will now be something like this:

1. Up and down in the new pattern       (stay with the new pattern)

2. Up — negotiate a 14 — down       (another new pattern now)

3. Up and down in the new pattern       (stay with the pattern)

4. Up — negotiate a treble lead — down   (another new pattern now)

After the fourth step the next lead head will have just been rung and the four steps can be repeated.

Using this system a ringer does not actually need to look at the treble at all. He still rings by the three patterns but knows there is an interruption every alternate up and down. The interruptions, in turn, are alternately 14s and treble leads. The treble leads are 12, 14 or 1234 as in Plain Bob. It is still recommended that the treble leads are noted because they provide a useful check.

A lead of Single Court, X 14 X 16 X 16 X 16 X 14 X, starting just after a lead head, is rung thus:

1. Up — negotiate a 14 — down          (a new pattern now)

2. Up and down in pattern

3. Up and down in pattern

4. Up and down in pattern

5. Up — negotiate a 14 — down          (another new pattern now)

6. Up — negotiate a treble lead — down  (probably not a new pattern)

At a plain treble lead the change is a 16 and so there is no interruption. A bob is a 14 which will mean three 14s in succession. A single is 1456 which means all bells stay put except the bells in 2,3 which interchange — symbolically this is IXIII.

With practice a plain course, and later touches, of both Little Bob and Single Court should be manageable.

If a novice finds it very difficult to ring the 14s in the right places a conductor could call 'bob' just before the relevant changes. This is rather against the spirit of the business but it is helpful for many novices in their first attempts at dealing with interruptions elsewhere than at treble leads.

# CHAPTER 4

## RIGHT PLACE METHODS

In this chapter several new methods are introduced in increasing order of complexity. These incorporate new changes and increasing numbers of interruptions. Although the methods vary in difficulty they are all *right place methods*. Right place methods can all be rung by the system of counting ups and downs.

### 4.1 Right Places and Right Place Methods

When a bell rings in the same place in two consecutive rows it is said to *make that place*. If the two rows are handstroke then backstroke (up then down) the bell makes a place *right*. A place is made *wrong* if it is made backstroke then handstroke. Changes like 12, 14 and 16 cause two bells to make places. The 14 in the middle of each lead of Little Bob causes the treble to make 4th's place right and some other bell to lead (make 1st's place) right.

A Right Place Method is one in which no bell ever makes a place wrong. This means that the change between every backstroke row and the following handstroke must be a X (cross). A X causes all six bells to interchange in pairs and is the only change which prevents any places being made. Rather more than half the minor methods commonly rung have right places only.

The three basic patterns result from the changes X and 16 alternating in sequence. Any touch in a right place method can be regarded as:

1. A sequence of alternating Xs and 16s with . . .

2. . . . some or most (or even all) 16s replaced by some other change.

The advantage of this arrangement is that the ringing by ups and downs described in section 3.4 will always work. Specific examples are given in later sections. The general rules are:

1. When the alternate (non-X) change is a 16 simply continue up and down in the latest pattern.

2. When the alternate change is not a 16 think 'up — negotiate — down' and decide on the new pattern.

3. Between a down and an up there is always a X and the situation can never be worse than just after the backstroke row of a treble lead in Plain Bob.

The last rule means that after ringing every backstroke (down) one will ring in pattern for at least the next handstroke (up). This means that hard mental effort is required only between an up and a down but not between a down and an up. Thus, at worst, the patterns are interrupted every other change, and even this is the case only if there are no 16s at all between the Xs.

### 4.2  Double Bob and Reverse Bob

With six bells there are six possible changes which cause two bells to make a place. They are:

<div align="center">12     14     16     34     36     56</div>

Any of these may be found between two Xs in a right place method. 16 is the only one which does not cause an interruption. 12 and 14 have been discussed. The reader should have no difficulty in dealing with the others.

The two simplest methods which involve a 56 are:

Double Bob Minor:

Lead:          X 16 X 16 X 56 X 16 X 16 X

Lead End: 12      Bob: 14      Single: 1234

Reverse Bob Minor:

Lead:          X 16 X 16 X 56 X 16 X 16 X

Lead End: 16      Bob: 14      Single: 1456

Symbolically a 56 (XXII) is the reverse of a 12 (IIXX). Reverse Bob Minor has this 56 in the middle of each lead and a 16 at a normal treble lead. This is the reverse of Plain Bob which has a 16 in the middle of each lead and a 12 at a normal treble lead. Double Bob has both the 56 and the 12.

Note that except for the treble leads Double Bob and Reverse Bob are identical. Starting from just after the backstroke row of a treble lead one rings:

1. Up and down in pattern

2. Up and down in pattern

3. Up — negotiate a 56 — down            (a new pattern now)

4. Up and down in pattern

5. Up and down in pattern

6. Up — negotiate a treble lead — down  (a new pattern)

Only step six is different for the two methods. When there is no call at the treble lead, Double Bob requires negotiating a 12 and Reverse Bob a 16. In theory Reverse Bob is easier since the treble lead does not normally interrupt the pattern. In practice, by this stage, many beginners find it hard *not* to ring a 12 when they see the treble leading!

### 4.3 S. Clement's Bob

A very commonly rung method which involves 36s is:

S. Clement's Bob Minor:

Lead:      X 16 X 36 X 36 X 36 X 16 X

Lead End: 12     Bob: 14     Single: 1234

Ringing by ups and downs involves:

1. Up and down in pattern

2. Up — negotiate a 36 — down          (a new pattern)

3. Up — negotiate a 36 — down          (another new pattern)

4. Up — negotiate a 36 — down          (yet another new pattern)

5. Up and down in pattern

6. Up — negotiate a treble lead — down  (a new pattern)

The 36s at three consecutive ups and downs means there is no chance for the patterns to get established. This may tax one's mind a little, at first, but many beginners find the greatest difficulty is counting up to three.

### 4.4 Double Court Bob

A method which involves 36s and 14s is:

Double Court Bob Minor:

Lead:      X 14 X 36 X 16 X 36 X 14 X

Lead End: 16     Bob: 14     Single: 1456

1. Up — negotiate a 14 — down          (a new pattern)

2. Up — negotiate a 36 — down          (a new pattern)

3. Up and down in pattern

4. Up — negotiate a 36 — down          (a new pattern)

5. Up — negotiate a 14 — down          (a new pattern)

6. Up — negotiate a treble lead — down  (normally a 16 so no interruption)

### 4.5 Some Helpful Hints

At this stage the most common difficulty is that there is too much to think about in too little time. Regular practice is important and the following points may be helpful too:

1. After the down of each 'up and down' that involves a change other than a 16, the situation is exactly the same as it is just after a treble lead in Plain Bob — the change is a X.

2. Some changes are easier to get used to than others. 12s and 14s are learnt when studying Plain Bob. 56s seem to present few problems. The 36 is a sticking point for some people. Hard practising of S. Clement's should help.

3. In any row there are only fifteen possible pairs of places in which a pair of bells can be. This is true of the first row of a lead. It turns out that the 1-2 pair can ring a lead in only five different ways. The other two pairs can each ring a lead in ten ways. If one can ring the 1-2 pair to the five leads of a plain course of a method, one can ring that pair to any touch in that method. If one can ring the 3-4 and the 5-6 to the plain course one can ring either of these pairs to any touch.

4. By one of the rules of change ringing, the sequence of changes that defines the lead of a method must read the same in reverse. Thus a lead like X 16 X 14 X 14 X would not do. This makes it easier to learn the sequence.

5. On six bells, places other than 1 and 6 are called *internal places*. It is these places that cause interruptions. The place notations of certain changes are commonly abbreviated to just the internal places. Thus 12, 36, 14 and 56 are remembered simply as 2, 3, 4 and 5 respectively. There is no abbreviation for 16 or 34. A lead of Double Court may be thought of as X 4 X 3 X 16 X 3 X 4 X. When ringing, one can work out the missing 1s and 6s. This is not difficult; for example, 3 must mean 36 and not 13 which is impossible.

6. A useful way of practising by oneself is to clench both fists with the thumbs on the outside, and pretend the two thumbs are bells. One can, by waving one's thumbs up and down, readily imagine that one is ringing by the up and down method. It is not, of course, possible to keep much of an eye on the treble unless one is practising the 1-2 pair!

### 4.6 Cambridge Surprise

With the exception of Little Bob, all the methods introduced so far have had leads of twelve rows. Each method has had at least one 16 in the lead. The most difficult right place methods rung on six bells are termed Surprise. They have leads of 24 rows and no 16s at all. Cambridge Minor is one of the best known and is an appropriate method with which to conclude.

Cambridge Surprise Minor:

Lead:          X 36 X 14 X 12 X 36 X 14 X 56 X 14 X 36 X 12 X 14 X 36 X

Lead End: 12      Bob: 14      Single: 1234

All the changes used in a lead of Cambridge, 12, 14, 56 and 36, have already been met in simpler methods. In theory, therefore, there should be no extra difficulties. In practice a major problem is simply remembering the sequence of changes which defines the lead. There are several ways of simplifying this task:

1. Note hint 4 above; learn only the first half of the sequence

2. Note hint 5 above; the sequence is now X 3 X 4 X 2 X 3 X 4 X 5

3. Since every alternate change is a X, one need remember only the changes which come between ups and downs, namely:  3 4 2 3 4 5

and 3 4 2 3 4 5 is all a ringer need carry in his head when ringing this method. A lead is rung like this:

1. Up — negotiate a 3 — down

2. Up — negotiate a 4 — down

3. Up — negotiate a 2 — down

4. Up — negotiate a 3 — down

5. Up — negotiate a 4 — down

6. Up — negotiate a 5 — down

7. Up — negotiate a 4 — down

8. Up — negotiate a 3 — down

9. Up — negotiate a 2 — down

10. Up — negotiate a 4 — down

11. Up — negotiate a 3 — down

12. Up — negotiate a treble lead — down

Steps 1, 2, 3, 4, 5 and 6 involve the numbers carried in the head and take one as far as the halfway point. Steps 7, 8, 9, 10 and 11 are simply steps 5, 4, 3, 2 and 1. One thinks of reaching the halfway point and then retracing one's steps.

# INDEX TO TERMINOLOGY AND METHODS

The numbers shown in this index are page numbers. The reference is always to where the item of terminology or method was introduced in the text. An item of terminology, when introduced in the text, is always in italics but not necessarily in quite the same form as in this index; thus 'make a place' appears as '*make that place*'.