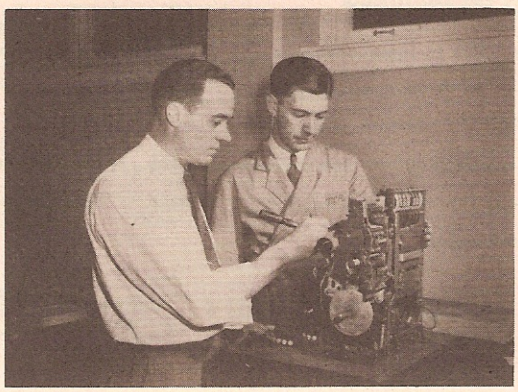
MECHANICAL PROBLEMS FOR NCR SERVICEMEN



The National Cash Register Company
Dayton 9, Ohio

PRINTED IN U.S.A. F-2621—12-22-48

NAME in full _____ Date _____ 19____

Home Address _____

The National Cash Register Company

PLEASE READ INSTRUCTIONS CAREFULLY

In this booklet are a number of practical mechanical problems. It is not necessary to have any special information in order to find the answers to these problems. There are no "catch questions." The answers to these questions may be readily found by clear thinking.

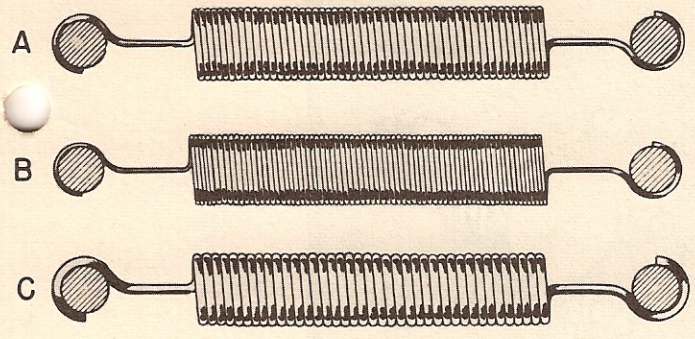
When you are told to begin, look over the entire booklet and decide which problems you can answer most readily. Do these first. Then do the others that seem more difficult, in the order they occur in the booklet.

DO NOT SPEND MORE THAN 5 MINUTES LOOKING OVER THE BOOKLET.

You will be allowed ample time to work on the entire booklet. However, it is important to work as quickly as you can.

READ THESE INSTRUCTIONS OVER AGAIN CAREFULLY

1.



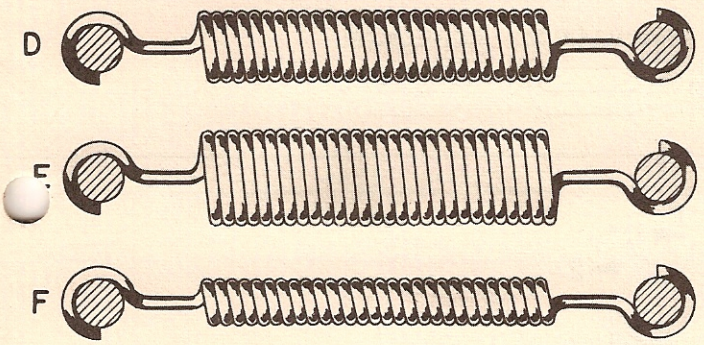
THE THREE SPRINGS A, B & C ARE OF THE SAME LENGTH, SIZE AND MATERIAL BUT OF DIFFERENT WIRE THICKNESS

THE STRONGEST SPRING IS..... ☐

THE MEDIUM STRONG SPRING IS..... ☐

THE WEAKEST SPRING IS..... ☐

2.



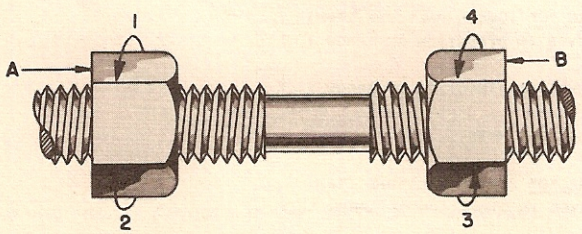
THE THREE SPRINGS D, E & F ARE OF THE SAME LENGTH, MATERIAL AND WIRE THICKNESS.

THE STRONGEST SPRING IS..... ☐

THE MEDIUM STRONG SPRING IS..... ☐

THE WEAKEST SPRING IS..... ☐

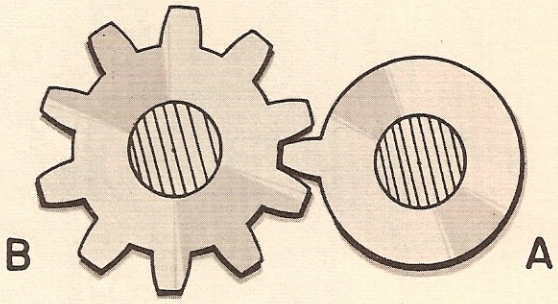
3.



ORDER FOR THE TWO NUTS "A" & "B" TO MOVE CLOSE TOGETHER:

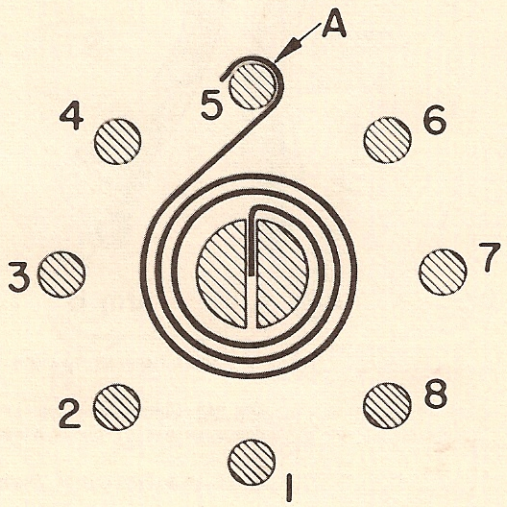
1. NUT "A" MUST BE TURNED IN DIRECTION OF: ARROW 1 ☐ ARROW 2 ☐
2. NUT "B" MUST BE TURNED IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐

4.



1. HOW MANY REVOLUTIONS MUST PART "A" MAKE TO TURN PART "B" ONE HALF REVOLUTION?..... ☐
2. CAN PART "B" DRIVE PART "A" ONE HALF REVOLUTION?....YES ☐ NO ☐
3. WHEN PART "A" HAS MADE 20 REVOLUTIONS, HOW MANY REVOLUTIONS HAS PART "B" MADE?..... ☐

5.



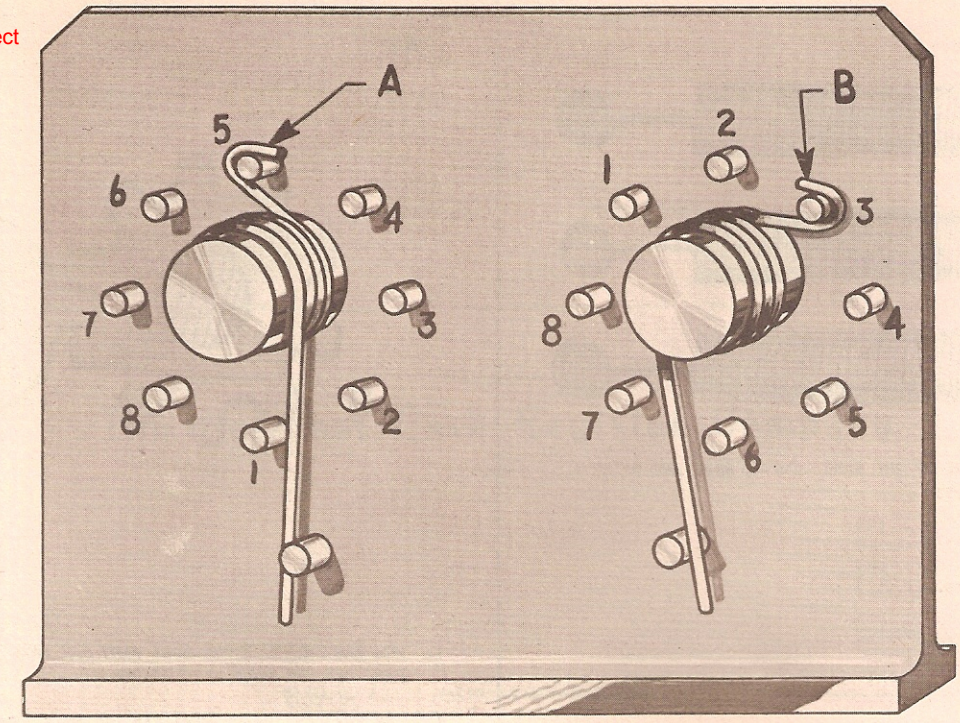
WRITE IN SPACES BELOW THE NUMBER OF THE PIN ON WHICH SPRING END "A" MUST BE HOOKED:

NUMBER OF THE PIN

TO WIND THE SPRING 1/4 TURN TIGHTER..... _____
TO WIND THE SPRING ONE & ONE-EIGHTH TURNS TIGHTER.... _____
TO UNWIND THE SPRING 3/8 TURN..... _____
TO UNWIND THE SPRING 3/4 TURN..... _____

DO NOT STOP - GO ON TO THE NEXT PAGE

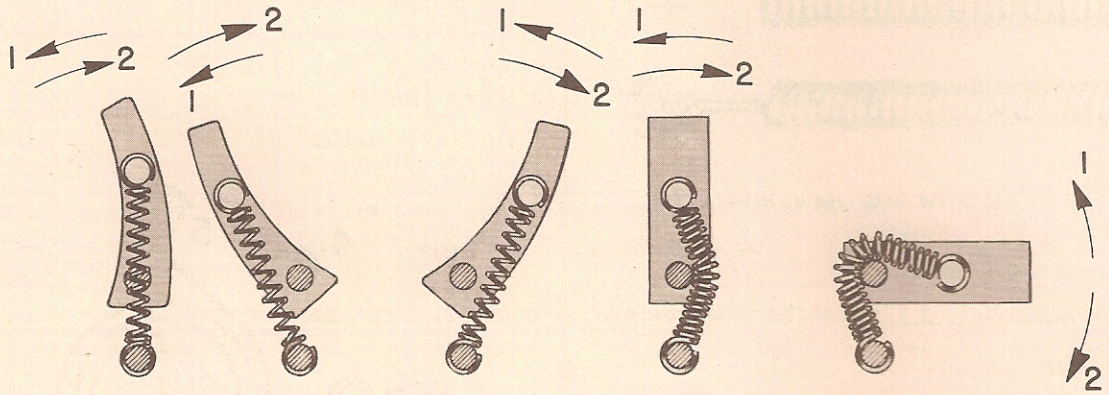
6.



THE PINS NUMBERED 1 TO 7 FOR SPRINGS "A" AND "B" ARE FIRMLY FIXED. WRITE IN THE NUMBER OF THE PIN ON WHICH EACH SPRING-END MUST BE HOOKED IN ORDER TO:

	SPRING END "A"	SPRING END "B"
TIGHTEN EACH SPRING 1/8 TURN	_____	_____
LOOSEN EACH SPRING 1/4 TURN	_____	_____
LOOSEN EACH SPRING 7/8 TURN	_____	_____

7.



CHECK OFF WHAT HAPPENS TO EACH ARM, UNDER THE PULL OF ITS SPRING:

ARM "A" (CHECK ONLY ONE ITEM)
MOVES IN DIRECTION OF ARROW 1.. ☐
MOVES IN DIRECTION OF ARROW 2.. ☐
DOES NOT MOVE..... ☐

ARM "B" (CHECK ONLY ONE ITEM)
MOVES IN DIRECTION OF ARROW 1.. ☐
MOVES IN DIRECTION OF ARROW 2.. ☐
DOES NOT MOVE..... ☐

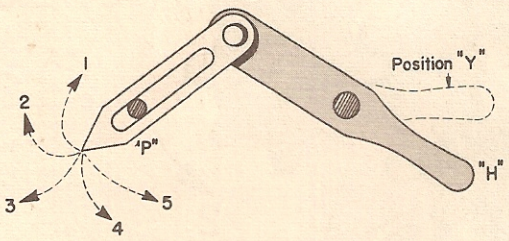
ARM "C" (CHECK ONLY ONE ITEM)
MOVES IN DIRECTION OF ARROW 1.. ☐
MOVES IN DIRECTION OF ARROW 2.. ☐
DOES NOT MOVE..... ☐

ARM "D" (CHECK ONLY ONE ITEM)
MOVES IN DIRECTION OF ARROW 1.. ☐
MOVES IN DIRECTION OF ARROW 2.. ☐
DOES NOT MOVE..... ☐

ARM "E" (CHECK ONLY ONE ITEM)
MOVES IN DIRECTION OF ARROW 1.. ☐
MOVES IN DIRECTION OF ARROW 2.. ☐
DOES NOT MOVE..... ☐

DO NOT STOP - GO ON TO THE NEXT PAGE

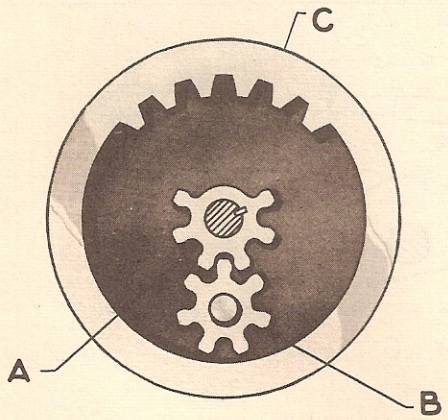
8.



WHEN HANDLE "H" IS MOVED TO POSITION "Y", THE POINTER "P" MOVES IN DIRECTION OF PATH:

1☐ 2☐ 3☐ 4☐ 5☐ (CHECK ONE ITEM ONLY)

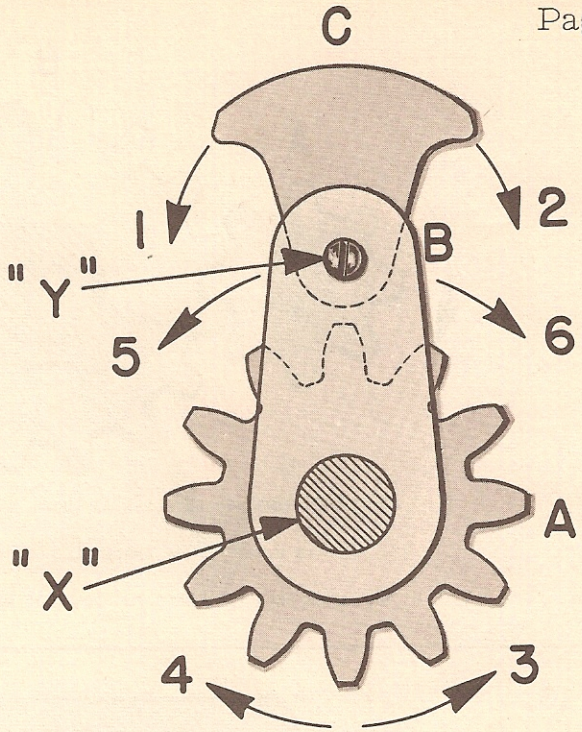
9.



PARTS "A" AND "C" ARE FASTENED TO THE SAME SHAFT. WHEN PART "C" ROTATES AT UNIFORM SPEED:

1. DOES "B" ALWAYS TURN IN THE SAME DIRECTION? YES☐ NO☐
2. "B" TURNS FASTEST WHEN IT IS IN MESH WITH: PART "A"☐ PART "C"☐

10.



LOOK AT THIS MECHANISM, ARM "B" REVOLVES ABOUT CENTER "X" AND PART "C" PIVOTS ABOUT CENTER "Y" IN PART "B".

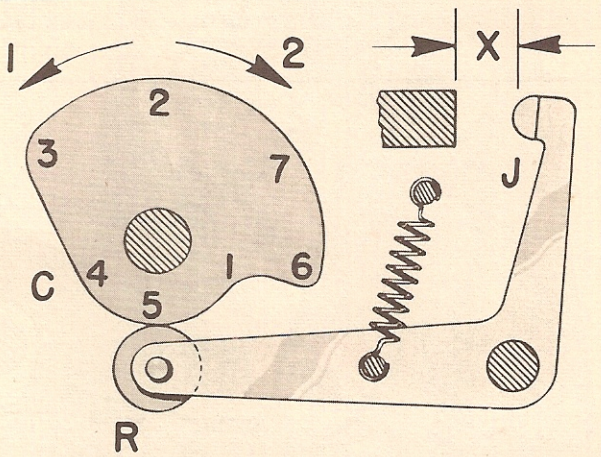
1. WHEN PART "C" IS DROPPED IN DIRECTION OF ARROW 1 AND PART "A" ROTATES IN DIRECTION OF ARROW 4, IN WHAT DIRECTION DOES PART "B" ROTATE? (CHECK ONLY ONE ITEM)

   DIRECTION OF ARROW 5☐ DIRECTION OF ARROW 6☐ NO DIRECTION☐

2. IN ORDER THAT ARM "B" MAY MOVE PART "A" IN DIRECTION OF ARROW 3, IN WHAT DIRECTION MUST "C" BE DROPPED? (CHECK ONLY ONE ITEM)

   DIRECTION OF ARROW 1☐ DIRECTION OF ARROW 2☐ NO DIRECTION☐

11.



1. WHEN PART "C" MAKES ONE COMPLETE REVOLUTION IN DIRECTION OF ARROW 1, DISTANCE "X" CHANGES FASTEST WHILE ROLLER "R" ROLLS FROM

   POINT NUMBER☐ TO POINT NUMBER☐

2. DISTANCE "X" CHANGES SLOWEST WHILE ROLLER "R" ROLLS FROM

   POINT NUMBER☐ TO POINT NUMBER☐

3. WHILE ROLLER "R" ROLLS FROM POINT 2 TO POINT 7, DISTANCE "X" WILL BE:

   SMALLEST☐ LARGEST☐ INTERMEDIATE☐

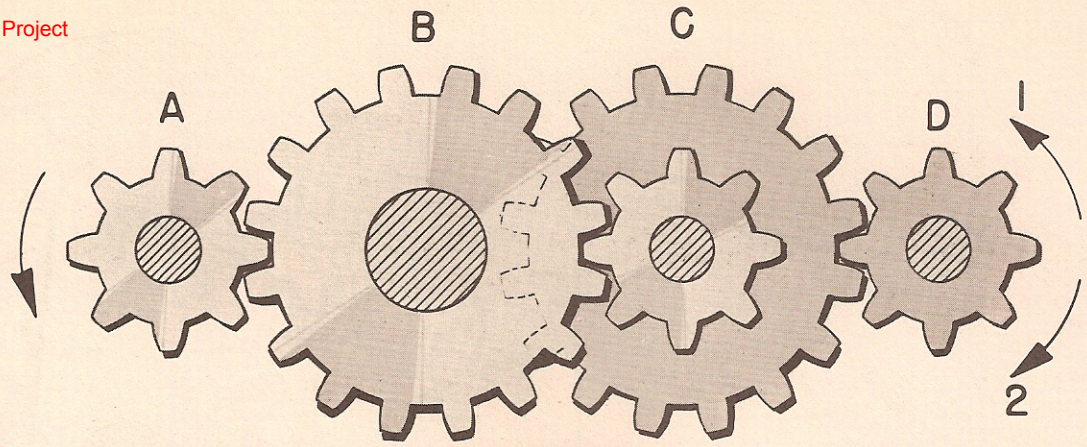
4. WHILE ROLLER "R" ROLLS FROM POINT 1 TO POINT 5, DISTANCE "X" WILL BE:

   SMALLEST☐ LARGEST☐ INTERMEDIATE☐

   CAN PART "C" ROTATE CONTINUOUSLY IN DIRECTION OF ARROW 1? YES☐ NO☐

DO NOT STOP - GO ON TO THE NEXT PAGE

12.

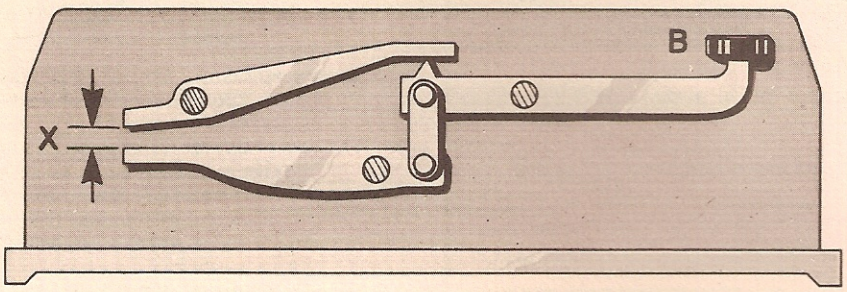


1. WHEN PART "A" REVOLVES AS SHOWN, PART "D" REVOLVES:

   IN DIRECTION OF ARROW 1 ☐ IN DIRECTION OF ARROW 2 ☐ DOES NOT REVOLVE AT ALL ☐

2. WHEN PART "A" MAKES TWO COMPLETE REVOLUTIONS, HOW MANY REVOLUTIONS DOES PART "D" MAKE? ☐

13.

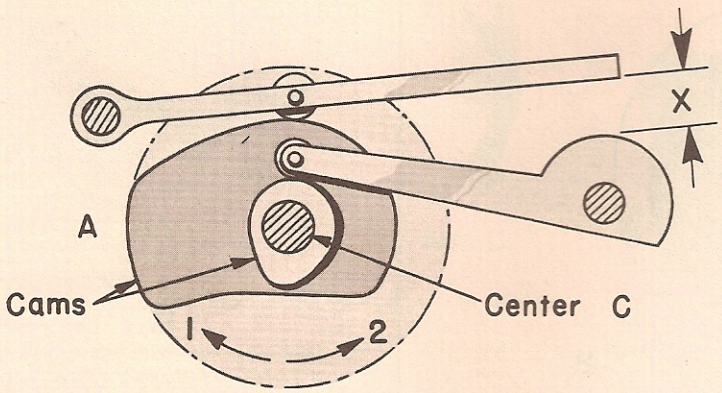


WHAT HAPPENS WHEN PART "B" IS PUSHED DOWN? (CHECK ONLY ONE ITEM)

DISTANCE "X" REMAINS THE SAME ☐ DISTANCE "X" BECOMES SHORTER ☐

DISTANCE "X" BECOMES LONGER ☐

14.



PART "A" CONSISTS OF TWO CAMS MADE AS ONE PIECE, AND REVOLVES ABOUT CENTER "C".

1. IF PART "A" IS REVOLVED ONE-QUARTER REVOLUTION IN THE DIRECTION OF ARROW 1,

   DISTANCE "X" IS: SHORTENED ☐ LENGTHENED ☐ UNCHANGED ☐

2. IF PART "A" REVOLVES ONE QUARTER REVOLUTION IN THE DIRECTION OF ARROW 2,

   DISTANCE "X" IS: SHORTENED ☐ LENGTHENED ☐ UNCHANGED ☐

3. IF PART "A" IS REVOLVED ONE-HALF REVOLUTION IN THE DIRECTION OF ARROW 1,

   DISTANCE "X" IS: SHORTENED ☐ LENGTHENED ☐ UNCHANGED ☐

4. IF PART "A" IS REVOLVED ONE-HALF REVOLUTION IN THE DIRECTION OF ARROW 2,

   DISTANCE "X" IS: SHORTENED ☐ LENGTHENED ☐ UNCHANGED ☐

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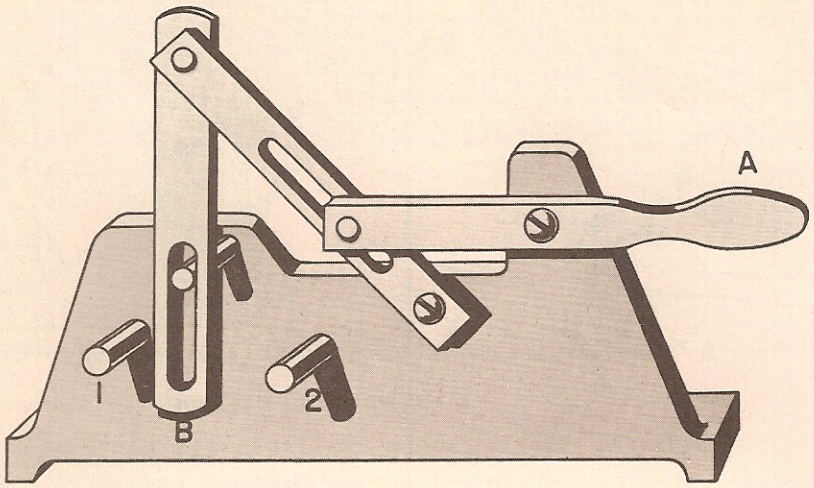
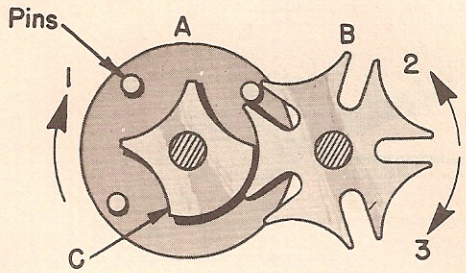
15.



1. WHEN HANDLE "A" IS PUSHED DOWN, BAR "B" MOVES TOWARD: PIN 1☐ PIN 2☐ DOES NOT MOVE☐
2. WHEN HANDLE "A" IS PUSHED UP, BAR "B" MOVES TOWARD: PIN 1☐ PIN 2☐ DOES NOT MOVE☐

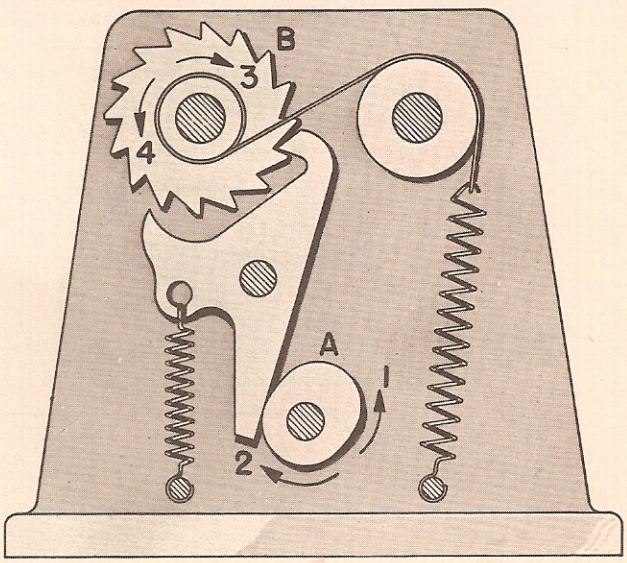
16.



PARTS "A" AND "C" ARE MADE AS ONE PIECE AND ALWAYS MOVE TOGETHER.

1. WHEN PART "A" REVOLVES IN DIRECTION OF ARROW 1, PART "B" REVOLVES IN DIRECTION OF: ARROW 2☐ ARROW 3☐ NEITHER DIRECTION☐
2. HOW MANY TURNS MUST "B" MAKE TO DRIVE "A" ONE FULL TURN?
   3☐ 5/3☐ 1☐ 3/5☐ "B" CANNOT DRIVE "A" FULL TURN☐
3. WHEN "A" MAKES ONE FULL TURN, HOW MANY TURNS DOES "B" MAKE?
   3☐ 5/3☐ 3/5☐ 2☐ 1☐ "A" CANNOT DRIVE "B" AT ALL☐
4. IF "A" ROTATES CONTINUOUSLY, "B" ROTATES:
   INTERMITTENTLY☐ CONTINUOUSLY☐ NOT AT ALL☐

17.



1. WHEN PART "A" ROTATES IN DIRECTION OF ARROW 1, PART "B" ROTATES IN DIRECTION OF: ARROW 3☐ ARROW 4☐ DOES NOT ROTATE☐
2. WHEN PART "A" ROTATES IN DIRECTION OF ARROW 2, PART "B" ROTATES IN DIRECTION OF: ARROW 3☐ ARROW 4☐ DOES NOT ROTATE☐

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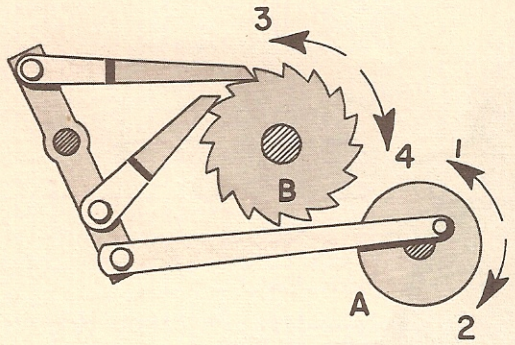
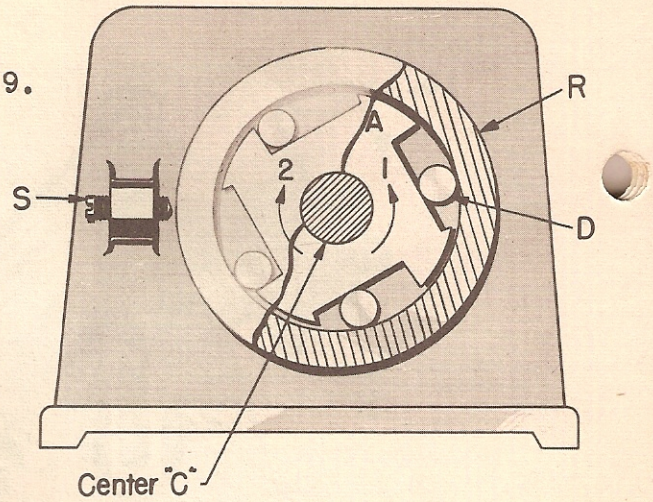
18.



1. WHEN PART "A" REVOLVES IN DIRECTION OF ARROW 1, PART "B" REVOLVES IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐ DOES NOT REVOLVE ☐
2. WHEN PART "A" REVOLVES IN DIRECTION OF ARROW 2, PART "B" REVOLVES IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐ DOES NOT REVOLVE ☐
3. WHEN PART "A" REVOLVES CONTINUOUSLY, PART "B" REVOLVES: INTERMITTENTLY ☐ NOT AT ALL ☐ CONTINUOUSLY ☐

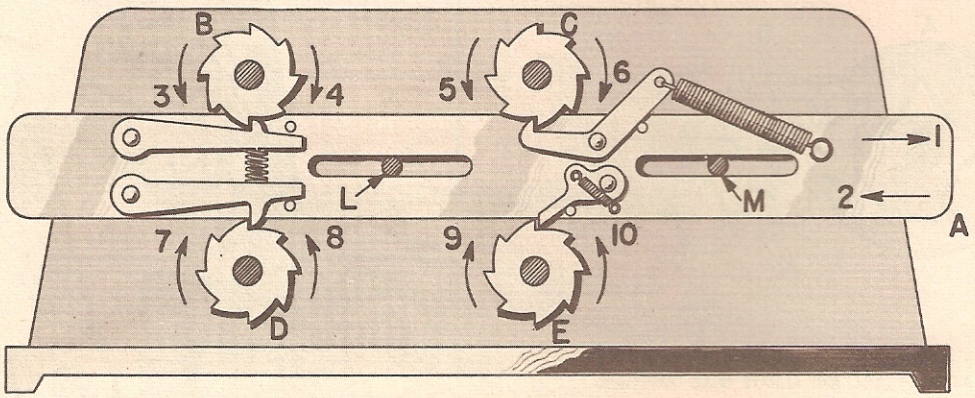
19.



PARTS "A" AND "R" BOTH CONTACT ROLLERS "D", AND CAN ROTATE INDEPENDENTLY OF EACH OTHER ABOUT CENTER "C".

1. WHEN "A" REVOLVES IN DIRECTION OF ARROW "1", PART "R" REVOLVES: IN SAME DIRECTION ☐ IN OPPOSITE DIRECTION ☐ DOES NOT REVOLVE ☐
2. WHEN "A" REVOLVES IN DIRECTION OF ARROW "2", PART "R" REVOLVES: IN SAME DIRECTION ☐ IN OPPOSITE DIRECTION ☐ DOES NOT REVOLVE ☐
3. WHEN PART "R" IS PREVENTED FROM REVOLVING, BY SCREW "S", PART "A" CAN BE REVOLVED: (CHECK ONLY ONE ITEM)
   - CONTINUOUSLY, IN DIRECTION OF ARROW 1..... ☐
   - CONTINUOUSLY, IN DIRECTION OF ARROW 2..... ☐
   - CANNOT BE REVOLVED..... ☐

20.



IN THIS MECHANISM BAR "A" MOVES ON PINS "L" AND "M".

1. WHAT HAPPENS WHEN BAR "A" MOVES IN DIRECTION OF ARROW 2?

PART "B" ROTATES IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐ DOES NOT ROTATE ☐

PART "C" ROTATES IN DIRECTION OF: ARROW 5 ☐ ARROW 6 ☐ DOES NOT ROTATE ☐

PART "D" ROTATES IN DIRECTION OF: ARROW 7 ☐ ARROW 8 ☐ DOES NOT ROTATE ☐

PART "E" ROTATES IN DIRECTION OF: ARROW 9 ☐ ARROW 10 ☐ DOES NOT ROTATE ☐

2. WHAT HAPPENS WHEN BAR "A" MOVES IN DIRECTION OF ARROW 1?

PART "B" ROTATES IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐ DOES NOT ROTATE ☐

PART "C" ROTATES IN DIRECTION OF: ARROW 5 ☐ ARROW 6 ☐ DOES NOT ROTATE ☐

PART "D" ROTATES IN DIRECTION OF: ARROW 7 ☐ ARROW 8 ☐ DOES NOT ROTATE ☐

PART "E" ROTATES IN DIRECTION OF: ARROW 9 ☐ ARROW 10 ☐ DOES NOT ROTATE ☐

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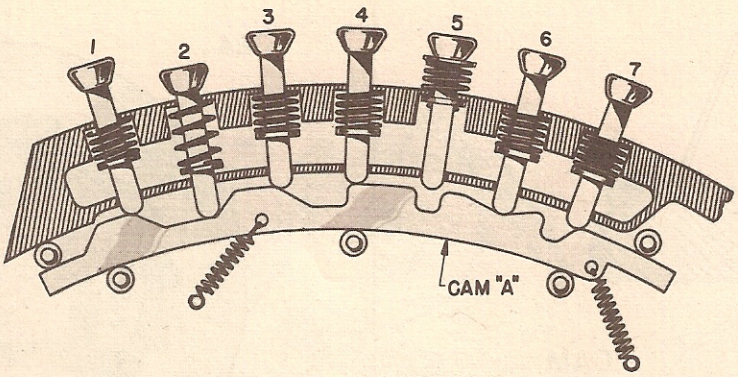
21.



1. WHEN KEY "1" IS PRESSED DOWN TO BOTTOM OF CAM, IN WHAT DIRECTION DOES CAM "A" MOVE:

   TO THE LEFT ☐ TO THE RIGHT ☐ NO MOVEMENT ☐

2. CHECK IN PROPER SPACE BELOW IN WHAT DIRECTION KEYS 2 TO 7 MOVE, WHEN KEY "1" IS PRESSED DOWN TO BOTTOM OF CAM:

	KEY 2	KEY 3	KEY 4	KEY 5	KEY 6	KEY 7
MOVES UP.....	☐	☐	☐	☐	☐	☐
MOVES DOWN.....	☐	☐	☐	☐	☐	☐
DOES NOT MOVE....	☐	☐	☐	☐	☐	☐

3. WHEN KEY 5 IS PRESSED DOWN TO BOTTOM OF CAM, IN WHAT DIRECTION DOES CAM "A" MOVE:

   TO THE LEFT ☐ TO THE RIGHT ☐ NO MOVEMENT ☐

4. CHECK IN PROPER SPACE BELOW IN WHAT DIRECTION KEYS 1, 2, 3, 4, 6, AND 7 MOVE, WHEN KEY "5" IS PRESSED DOWN TO BOTTOM OF CAM:

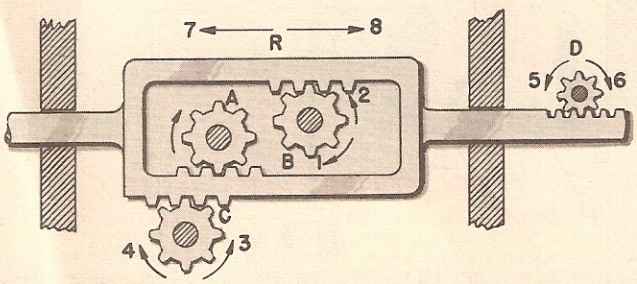
	KEY 1	KEY 2	KEY 3	KEY 4	KEY 6	KEY 7
MOVES UP.....	☐	☐	☐	☐	☐	☐
MOVES DOWN.....	☐	☐	☐	☐	☐	☐
DOES NOT MOVE....	☐	☐	☐	☐	☐	☐

5. WHEN KEY 7 IS PRESSED DOWN TO BOTTOM OF CAM, IN WHAT DIRECTION DOES CAM "A" MOVE:
   TO THE LEFT ☐ TO THE RIGHT ☐ NO MOVEMENT ☐

6. CHECK IN PROPER SPACE BELOW IN WHAT DIRECTION KEYS 1 TO 6 MOVE, WHEN KEY "7" IS PRESSED DOWN TO BOTTOM OF CAM:

	KEY 1	KEY 2	KEY 3	KEY 4	KEY 5	KEY 6
MOVES UP.....	☐	☐	☐	☐	☐	☐
MOVES DOWN.....	☐	☐	☐	☐	☐	☐
DOES NOT MOVE....	☐	☐	☐	☐	☐	☐

22.

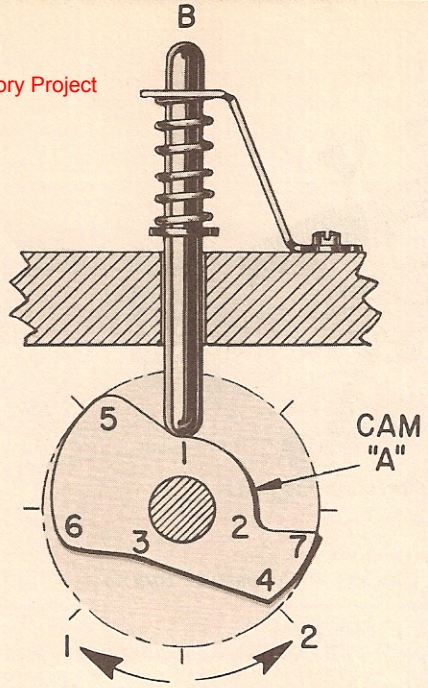


WHAT HAPPENS WHEN GEAR "A" REVOLVES AS SHOWN ABOVE?

1. GEAR "B" TURNS IN DIRECTION OF: ARROW 1 ☐ ARROW 2 ☐ DOES NOT TURN ☐
2. GEAR "C" TURNS IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐ DOES NOT TURN ☐
3. GEAR "D" TURNS IN DIRECTION OF: ARROW 5 ☐ ARROW 6 ☐ DOES NOT TURN ☐
4. PART "R" MOVES IN DIRECTION OF: ARROW 7 ☐ ARROW 8 ☐ DOES NOT MOVE ☐

DO NOT STOP - GO ON TO THE NEXT PAGE

23.



1. WHEN CAM "A" REVOLVES IN THE DIRECTION OF ARROW 1, WHAT HAPPENS TO PART "B" WHEN IT SLIDES FROM POINT TO POINT ON THE CAM SURFACE:

   IT DROPS FASTEST BETWEEN POINT☐ AND POINT☐

   IT RISES FASTEST BETWEEN POINT☐ AND POINT☐

   IT DROPS SLOWEST BETWEEN POINT☐ AND POINT☐

   IT RISES SLOWEST BETWEEN POINT☐ AND POINT☐

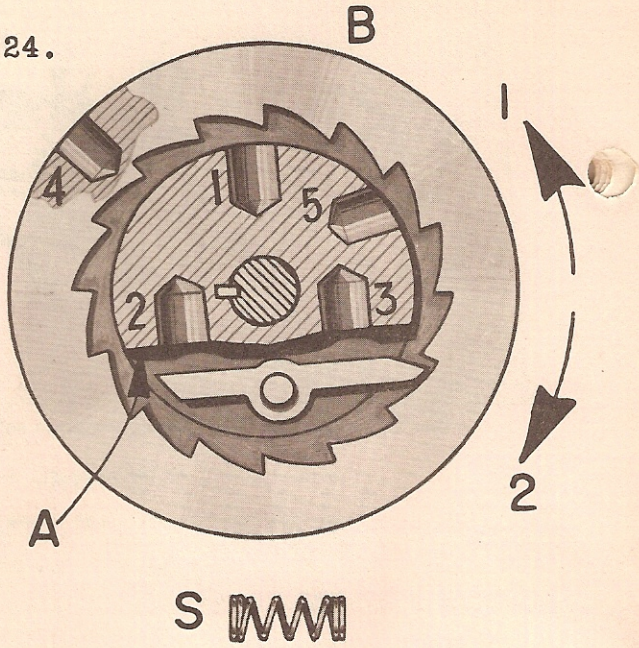
   IT NEITHER RISES NOR FALLS BETWEEN POINT☐ AND POINT☐

2. HOW FAR CAN CAM "A" REVOLVE IN DIRECTION OF ARROW "2" FROM POSITION SHOWN?

   1/8 REVOLUTION☐ 1/4 REVOLUTION☐

   1/2 REVOLUTION☐ ONE REVOLUTION☐

24.



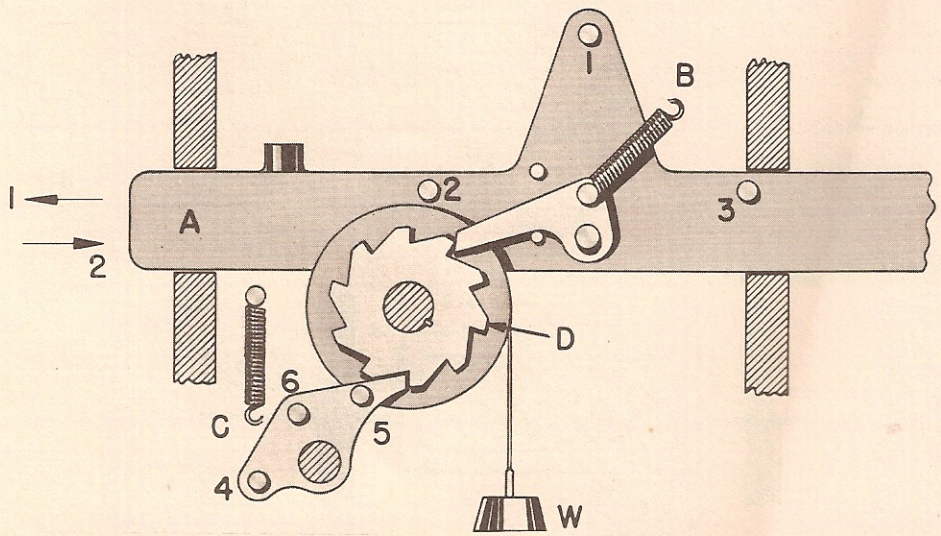
THIS IS A TOP VIEW OF THE MECHANISM. THE PART SHOWN BY CROSS SECTION LINES IS A CUT-AWAY OF THE INSIDE.

1. IN ORDER FOR THIS MECHANISM TO OPERATE PROPERLY: SPRING "S" MUST BE PLACED IN HOLE: 1☐ 2☐ 3☐ 4☐ 5☐

2. IF PART "A" IS STATIONARY, PART "B" MAY POSSIBLY ROTATE FREELY IN DIRECTION OF:
   ARROW 1☐ ARROW 2☐ EITHER DIRECTION☐ NO DIRECTION☐

3. IF PART "A" IS FREE TO ROTATE, IT CAN BE DRIVEN BY PART "B" IN DIRECTION OF:
   ARROW 1☐ ARROW 2☐ EITHER DIRECTION☐ NEITHER DIRECTION☐

25.



1. IF THIS MECHANISM IS TO OPERATE PROPERLY, THE LOOSE ENDS OF SPRINGS "B" AND "C" MUST BE HOOKED ON WHICH PINS?

   A. SPRING "B" MUST BE HOOKED ON: PIN 1☐ PIN 2☐ PIN 3☐ PIN 4☐ PIN 5☐ PIN 6☐

   B. SPRING "C" MUST BE HOOKED ON: PIN 1☐ PIN 2☐ PIN 3☐ PIN 4☐ PIN 5☐ PIN 6☐

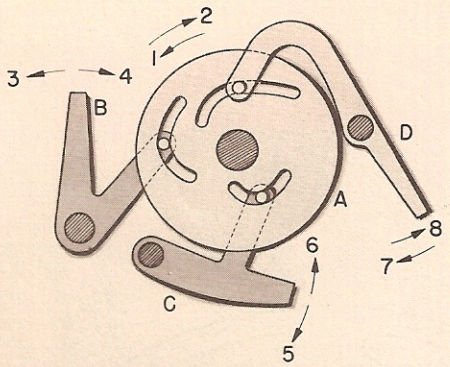
2. IN WHAT DIRECTION DOES PART "A" MOVE, WHEN WEIGHT "W" IS BEING RAISED?

   IN DIRECTION OF: ARROW 1☐ ARROW 2☐ NO DIRECTION☐

3. HOW MANY TIMES MUST PART "A" MOVE "BACK AND FORTH" FOR PART "D" TO BE TURNED TWO FULL REVOLUTIONS?☐

DO NOT STOP - GO ON TO THE NEXT PAGE

26.



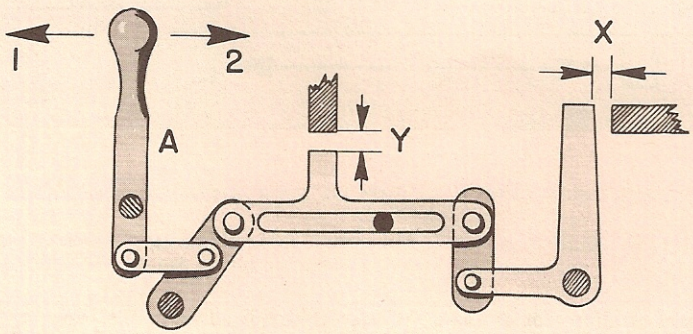
WHAT HAPPENS WHEN: PART "A" ROTATES FROM POSITION SHOWN, IN THE DIRECTION OF ARROW 1?

1. ARM "B" MOVES IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐ DOES NOT MOVE ☐
2. ARM "C" MOVES IN DIRECTION OF: ARROW 5 ☐ ARROW 6 ☐ DOES NOT MOVE ☐
3. ARM "D" MOVES IN DIRECTION OF: ARROW 7 ☐ ARROW 8 ☐ DOES NOT MOVE ☐

WHAT WILL HAPPEN WHEN: PART "A" ROTATES FROM POSITION SHOWN, IN DIRECTION OF ARROW 2?

1. ARM "B" MOVES IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐ DOES NOT MOVE ☐
2. ARM "C" MOVES IN DIRECTION OF: ARROW 5 ☐ ARROW 6 ☐ DOES NOT MOVE ☐
3. ARM "D" MOVES IN DIRECTION OF: ARROW 7 ☐ ARROW 8 ☐ DOES NOT MOVE ☐

27.



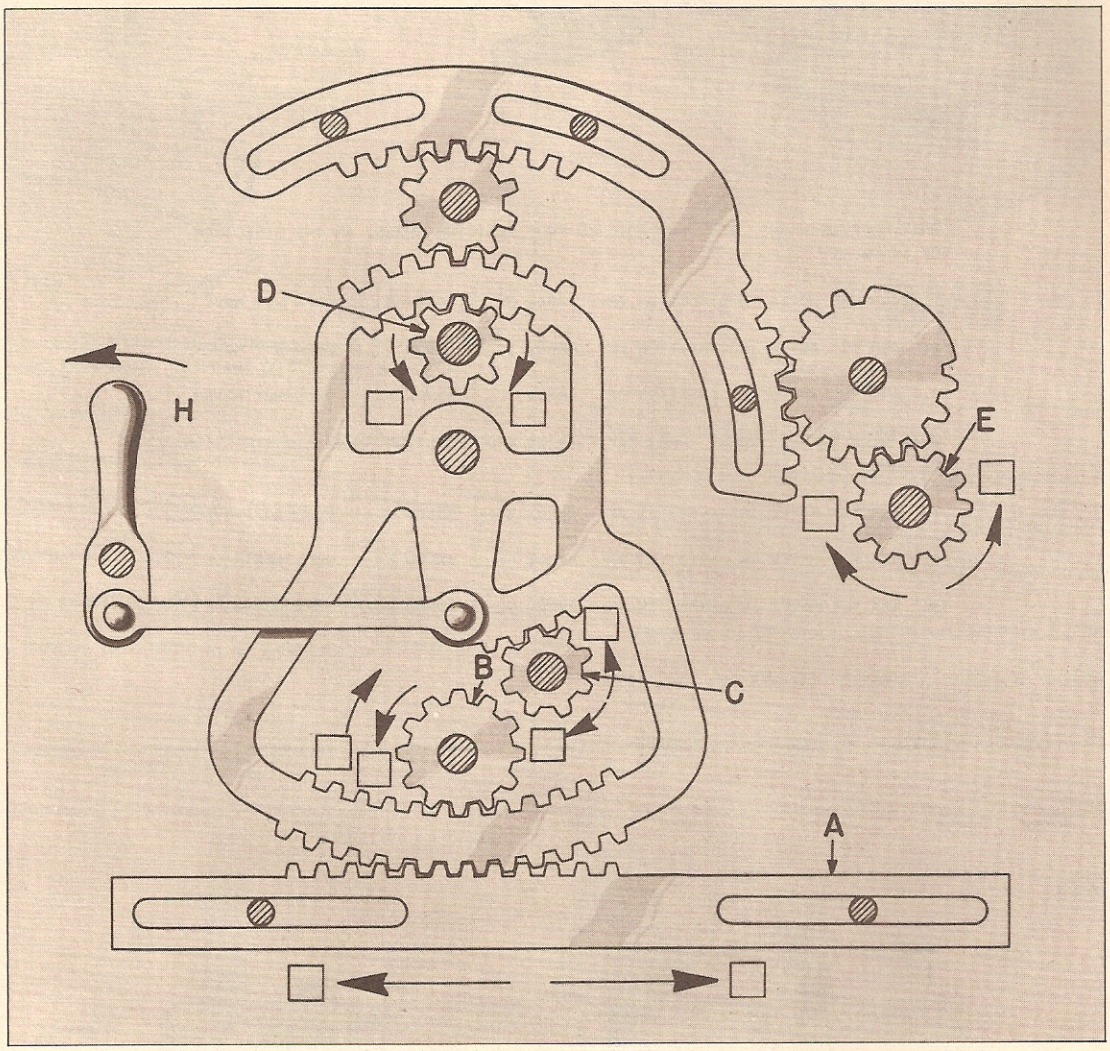
1. TO REDUCE DISTANCE "X", HANDLE "A" MUST BE MOVED IN DIRECTION OF:

   ARROW 1 ☐ ARROW 2 ☐

2. TO REDUCE DISTANCE "Y" HANDLE "A" MUST BE MOVED IN DIRECTION OF:

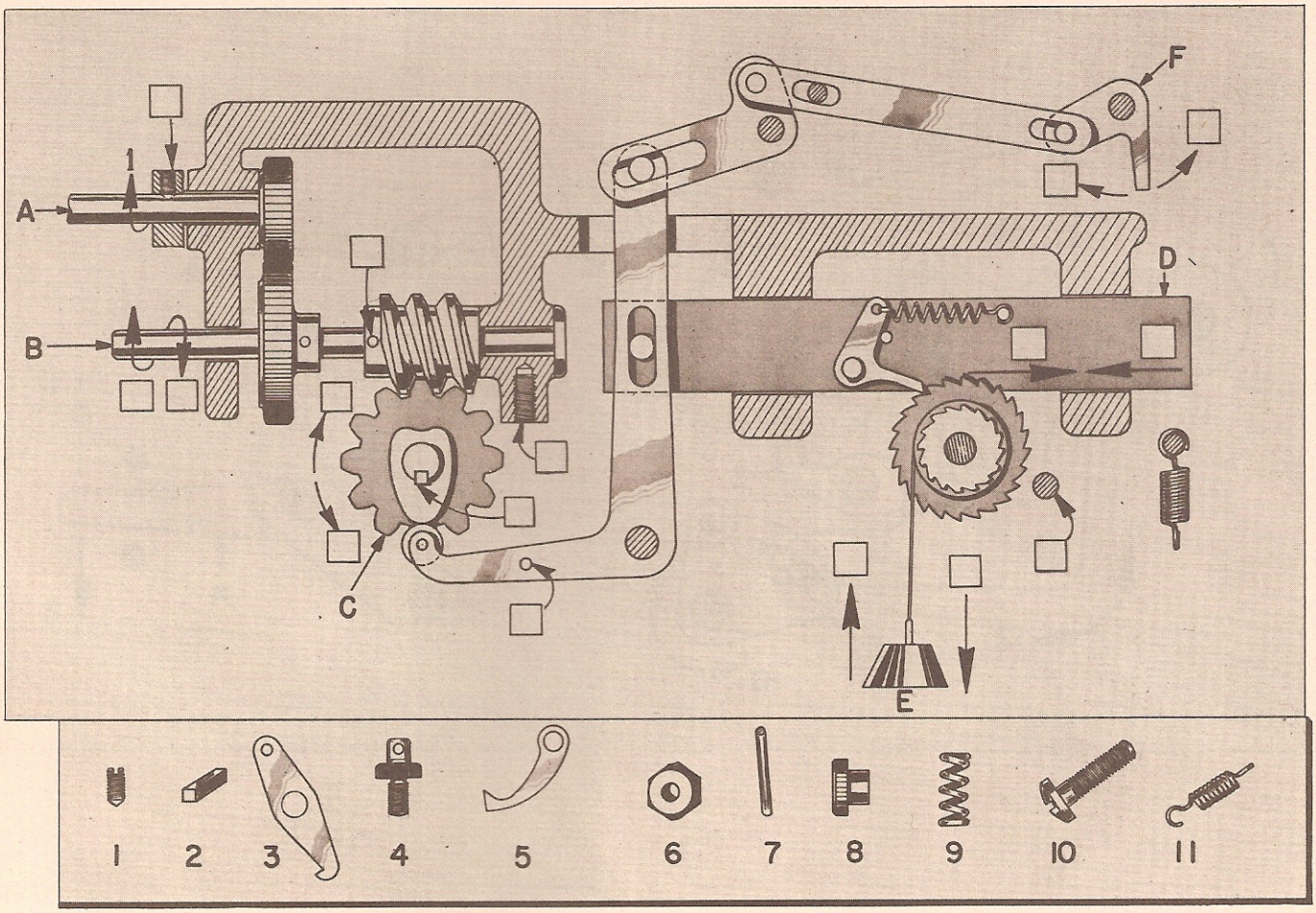
   ARROW 1 ☐ ARROW 2 ☐

28.



WHEN HANDLE "H" IS PUSHED IN DIRECTION OF ARROW, IN WHAT DIRECTION DO PARTS "A", "B", "C", "D", AND "E" MOVE? CHECK THE DIRECTION OF MOVEMENT FOR EACH OF THESE PARTS IN PROPER SQUARES SHOWN ABOVE.

29.



IN THIS MECHANISM SEVERAL OF THE ESSENTIAL PARTS ARE MISSING. WITHOUT THESE PARTS THE MECHANISM CANNOT OPERATE PROPERLY.
UNDER THE MECHANISM ARE SHOWN A NUMBER OF LOOSE PARTS. HERE YOU WILL FIND ALL THE ESSENTIAL MISSING PARTS, AS WELL AS PARTS WHICH DO NOT BELONG TO THE MECHANISM.

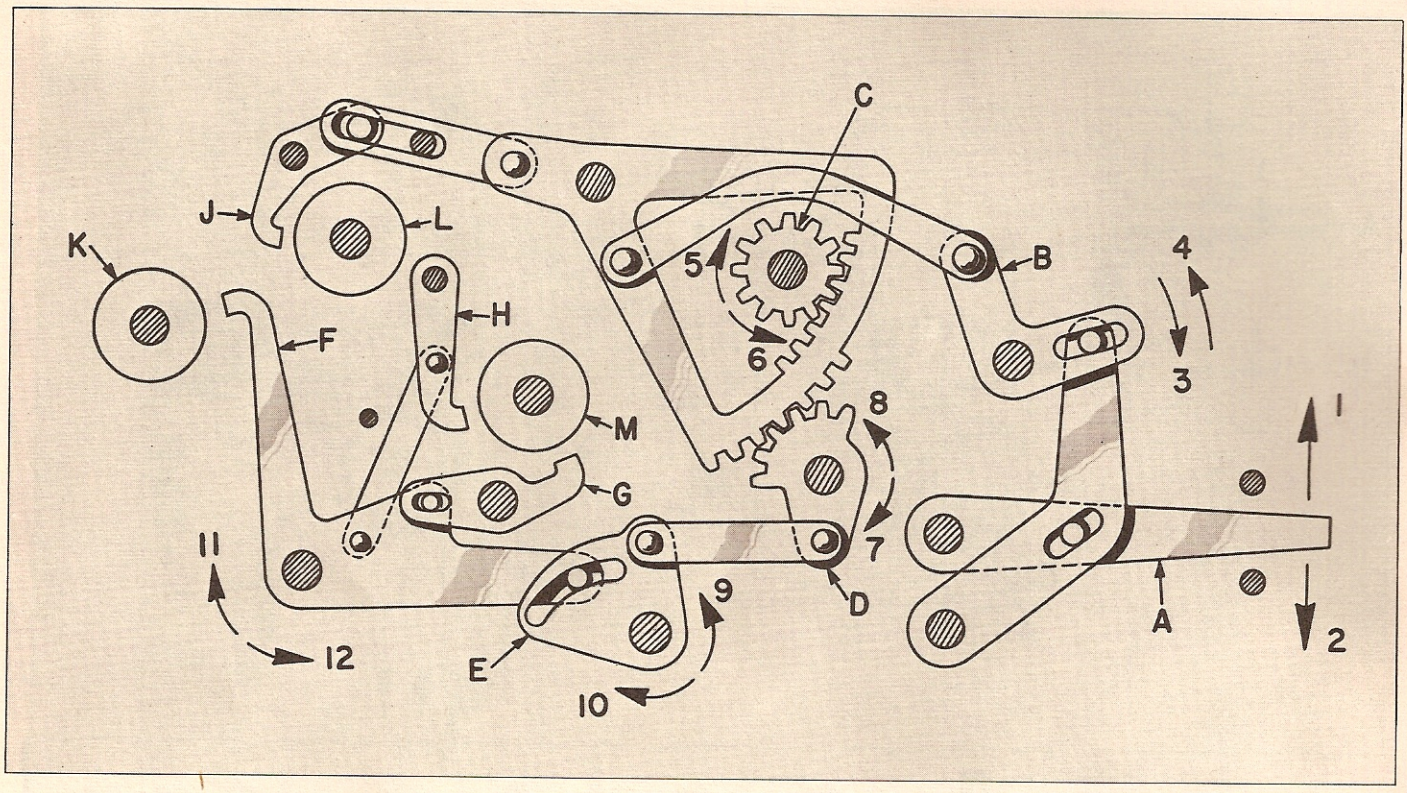
1. LOOK AT THE ABOVE MECHANISM AND THE LOOSE PARTS. NOTICE ALSO THE SMALL SQUARES (☐). MARK IN THE PROPER SQUARE THE NUMBER OF THE CORRECT PART, TO SHOW WHERE IT SHOULD BE ASSEMBLED, FOR THE MECHANISM TO OPERATE PROPERLY.

2. NOW LOOK AT THE MECHANISM AND OBSERVE THE OPERATION OF ITS MOVING PARTS. WHAT HAPPENS WHEN PART "A", REVOLVING IN DIRECTION OF ARROW 1, DRIVES PART "B" ONE FULL TURN AROUND?
CHECK(✓) IN PROPER SQUARES AT PARTS "B", "C", "D", "E" AND "F", THE DIRECTION OF THEIR ROTATION OR MOVEMENT.

3. HOW MANY FULL TURNS MUST PART "B" MAKE TO TURN PART "C" ONE FULL REVOLUTION? ☐

DO NOT STOP - GO ON TO THE NEXT PAGE

30.



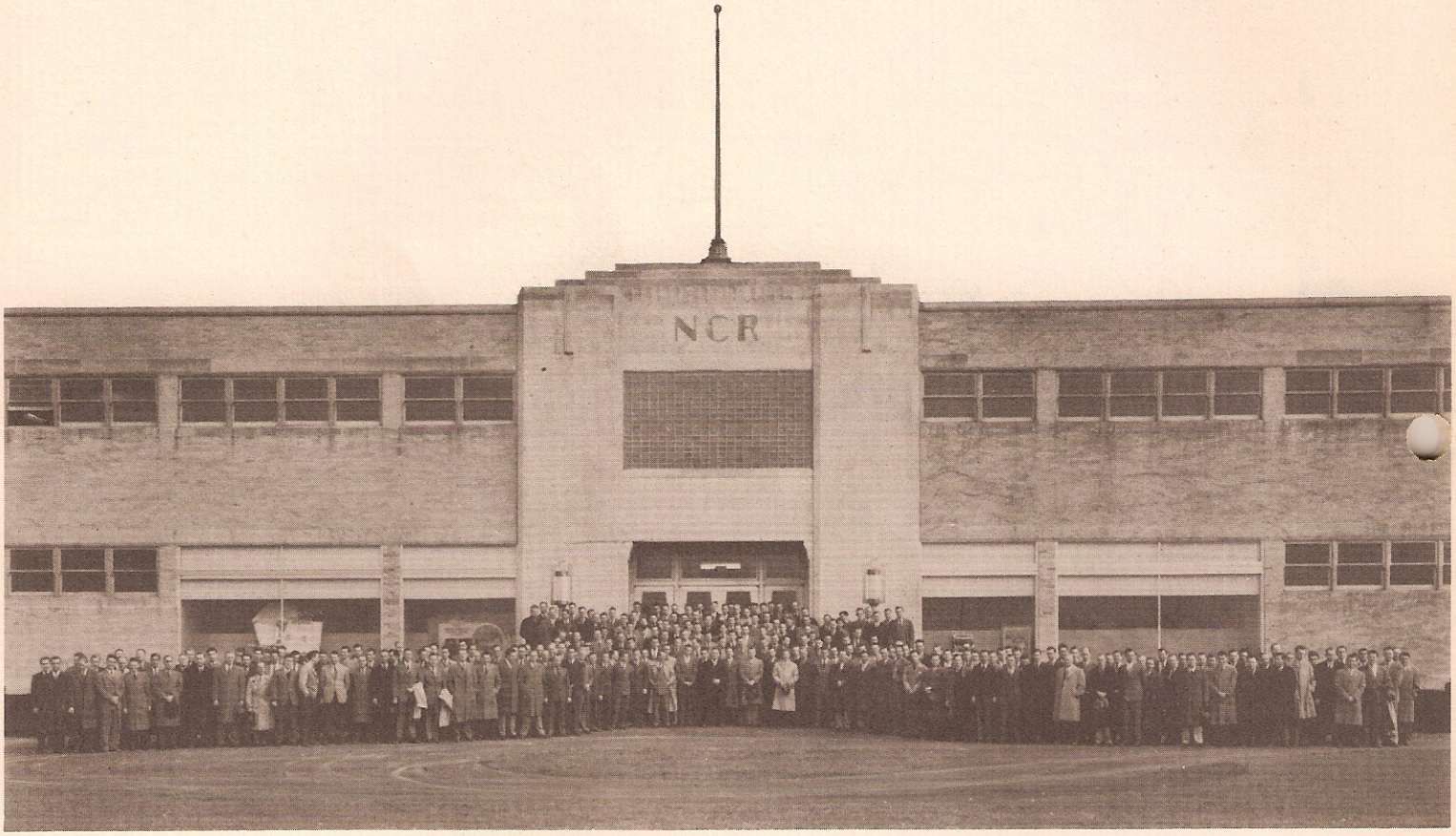
WHAT HAPPENS WHEN PART "A" MOVES IN DIRECTION OF ARROW 1?

1. PART "B" MOVES IN DIRECTION OF: ARROW 3 ☐ ARROW 4 ☐ NEITHER DIRECTION ☐
2. PART "C" MOVES IN DIRECTION OF: ARROW 5 ☐ ARROW 6 ☐ NEITHER DIRECTION ☐
3. PART "D" MOVES IN DIRECTION OF: ARROW 7 ☐ ARROW 8 ☐ NEITHER DIRECTION ☐
4. PART "E" MOVES IN DIRECTION OF: ARROW 9 ☐ ARROW 10 ☐ NEITHER DIRECTION ☐
5. PART "F" MOVES IN DIRECTION OF: ARROW 11 ☐ ARROW 12 ☐ NEITHER DIRECTION ☐

NOW LOOK CAREFULLY AT PARTS "F", "G", "H", "J", "K", "L", AND "M"

1. IN ORDER FOR PART "F" TO CONTACT PART "K", PART "A" MUST BE MOVED IN DIRECTION OF: ARROW 1 ☐ ARROW 2 ☐
2. IN ORDER FOR PART "G" TO CONTACT PART "M", PART "A" MUST BE MOVED IN DIRECTION OF: ARROW 1 ☐ ARROW 2 ☐
3. IN ORDER FOR PART "H" TO CONTACT PART "M", PART "A" MUST BE MOVED IN DIRECTION OF: ARROW 1 ☐ ARROW 2 ☐
4. IN ORDER FOR PART "J" TO CONTACT PART "L", PART "A" MUST BE MOVED IN DIRECTION OF: ARROW 1 ☐ ARROW 2 ☐

NOW: LOOK OVER EVERY PAGE TO BE SURE NO QUESTIONS HAVE BEEN OMITTED.



A class of student and post-graduate servicemen attending the NCR Servicemen's School in Dayton, assembled with their instructors, in front of the building devoted to their training.