Volume XXXVII, Issue #1

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The Journal of the Electrical Horology Society

Chapter #78 National Association of Watch and Clock Collectors

- "Our featured article for this issue of the Journal is a reprint of the Self Winding Clock Company instructions for the installation and repair of SWCC clock movements."
- "We are always looking for information suitable for the Journal and greatly appreciate the loan of original material."

Inside this issue:

President's Message

Fellow Horologists:

I am saddened to report the death of Henry Weiland. Many electrical enthusiasts will recognize Henry's name but for those who did not have the pleasure of knowing him, Henry was a knowledgeable, long time collector of electric clocks. He also had an extensive horological library. Henry willingly shared both his knowledge and experience. I particularly appreciated his demonstration model of what a Self Winding Clock Company central time distribution station would have contained. This demonstration model included all the necessary relays and fault finding devices. It was enjoyable to watch the system work and coupled with Henry's running commentary, it allowed you to gain an appreciation of the complexities of time signal distribution. Our thoughts go out to his family.

Our featured article for this issue of the Journal is a reprint of the Self Winding Clock Company instructions for the installation and repair of SWCC clock movements. The information contained in the manual can be combined with the article contained in the December issue which identified the various parts used in the SWCC movements making a very comprehensive repair manual. As is very evident, this manual is taken from Henry Weiland's Library so our sincere thanks to Henry and I only wish that I could personally extend my thanks. As you read this manual, you may notice that there may be a few pages missing. If you have copies of these pages, I would appreciate it if you could loan these pages to our editor so that we could complete this manual in a future issue of the Journal.

If you have not paid your dues, please send your payment to our Secretary/Treasurer, Tony Bolek as soon as possible. Also, please take care to make out your check to "The Electrical Horology Society Chapter #78" as is shown on the dues notice. New banking rules, due in part to the fall-out from 9-11, make it imperative that checks be made out properly for tracking purposes.

By coincidence, I have had two members inquire if I knew of any qualified appraisers who have expertise regarding electrical clock collections. I was unable to help as I do not know of any appraisers who meet these requirements. If you do know of anyone, please let me know and I will pass along this information.

The Chapter is always looking for electrical clock information that we can reproduce for the EHS Journal. Please look in your library for suitable documents. Information will be scanned and returned promptly along with our sincere thanks.

We will be reviewing our classified advertisements included in the Journal so please let Tony know if you wish to run an ad next year or if there are any changes to your existing ad. As always, ads are free to Chapter #78 members. Speaking of Tony Bolek, please take note of his change of e-mail address. His new address is shown in the Contact Information shown below the classified advertisements.

For those of us who have found this to be a particularly severe winter season, please remember that snow does not last forever and that spring is on the horizon. Enjoy this issue.

Bill Ellison, FNAWCC President

SWCC Instructions

ENGINEERING DEPARTMENT
SELF WINDING CLOCK CO., INC., BROOKLYN, N.Y.

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2. Suspending, Wiring & Starting
3. Maintenance of sweep seconds movement

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2. Adjustment of Motor Magnet and Armature
3. Adjustment of Motor Contacts
4. Adjustment of Synchronizing Levers
5. Adjustment of friction on Seconds Hand Arbor
6. Adjustment of Heavy Duty Minute Contact Fingers

D. MAINTENANCE

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2. Exchanging Movements, Packing for Return Shipment
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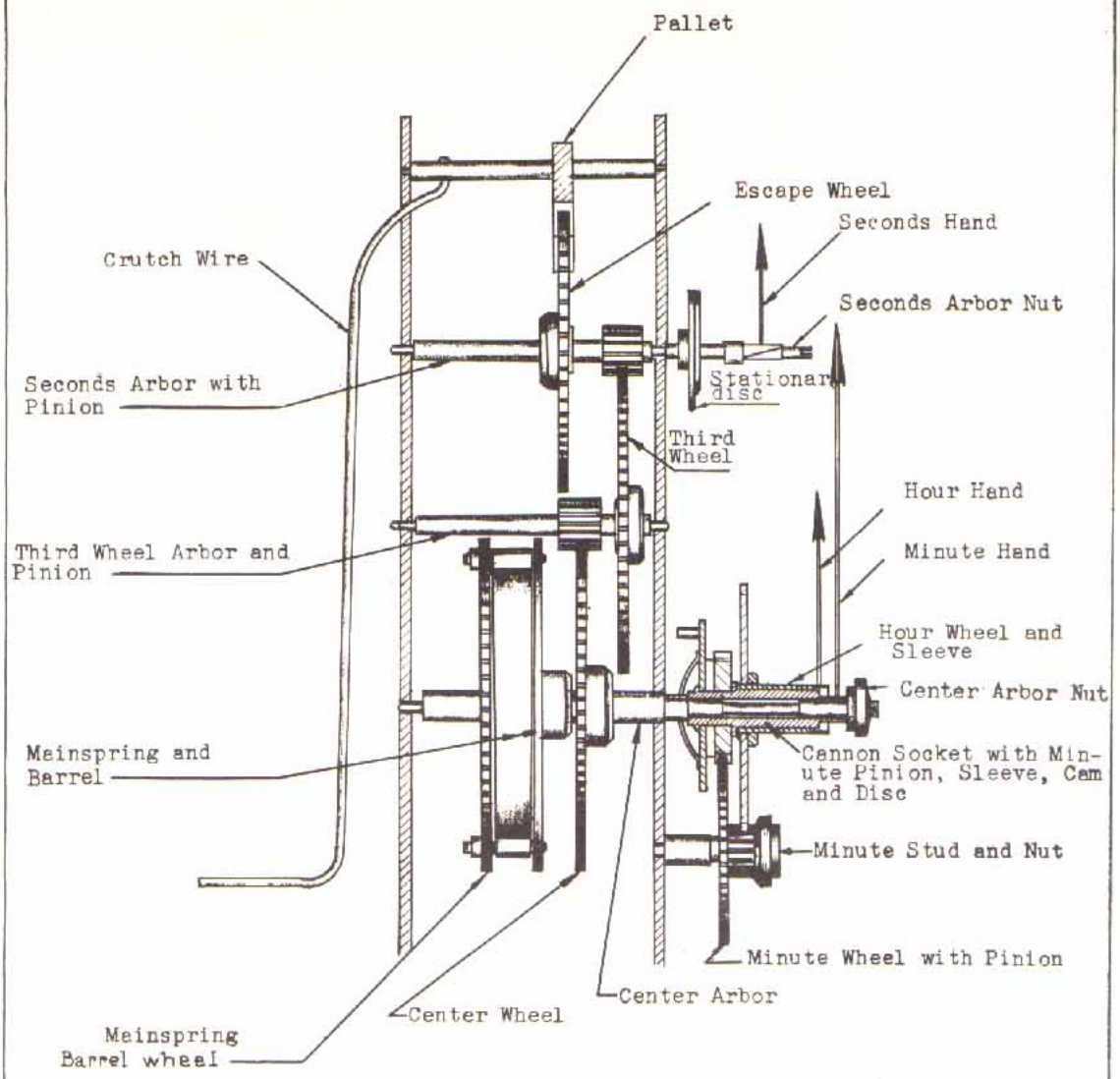
SWCC Instructions (continued)

ENGINEERING DEPARTMENT SELF WINDING CLOCK CO., INC., BROOKLYN, N.Y.	INSTRUCTIONS	
	Model "F"	Sheet No.A-1

SUBJECT: General Description - Movement Parts



Prep. by: H. Maerz	Appr. by: H. M.	Issued: May 17, 1945	Supers.:

SWCC Instructions (continued)

ENGINEERING DEPARTMENT SELF WINDING CLOCK COMPANY, INC., BROOKLYN, N.Y.	INSTRUCTIONS Model "F" Sheet No. A-2

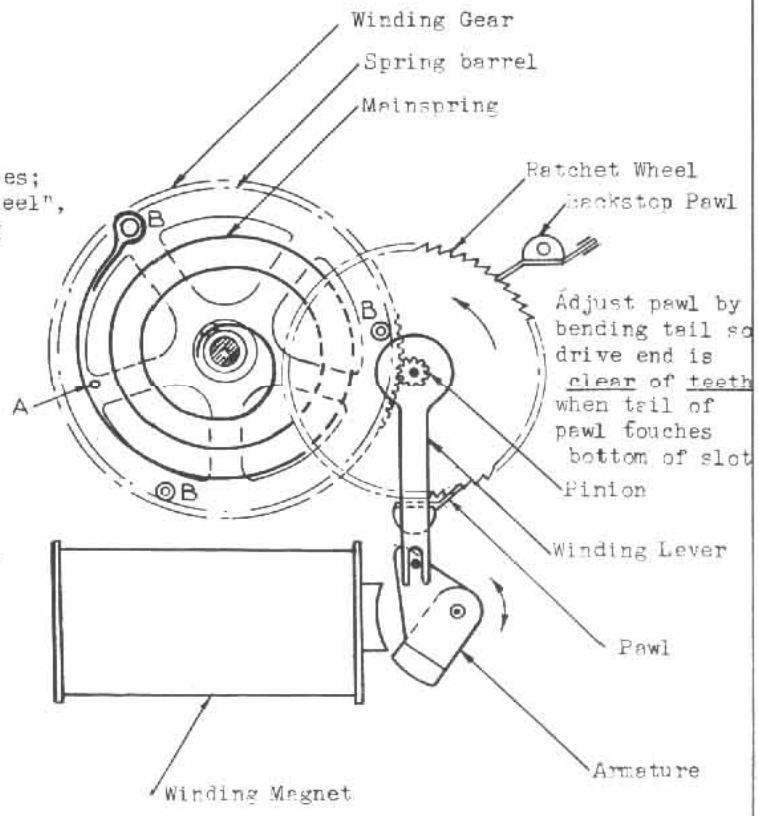
SUBJECT: General Description - Winding

Whenever "Winding Magnet" circuit is closed, "Armature" vibrates same way as the hammer of an ordinary electric bell.

"Winding Lever" oscillates; "Pawl" turns "Ratchet Wheel", "Pinion" drives "Winding Gear" which winds up "Mainspring"

Start of

first turn of spring must be outside Pin "A" All turns of spring must be inside Studs "B"



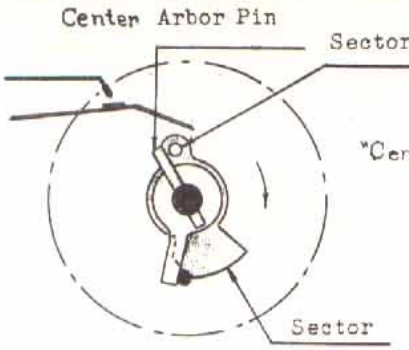
Prep. by: H. Meers	Appr. by: H. M.	Issued: May 17, 1945 Supers.:

SWCC Instructions (continued)

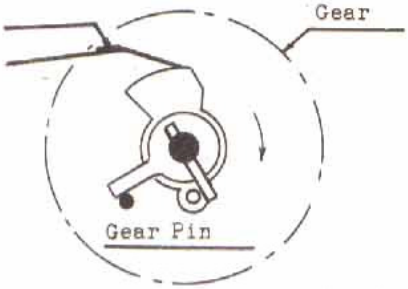
ENGINEERING DEPARTMENT
SELF WINDING CLOCK COMPANY, INC., BROOKLYN, N.Y.

INSTRUCTIONS | MODEL "F" | Sheet No. A3

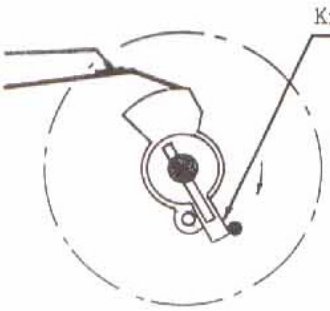
SUBJECT: General Description - Hourly Winding Control



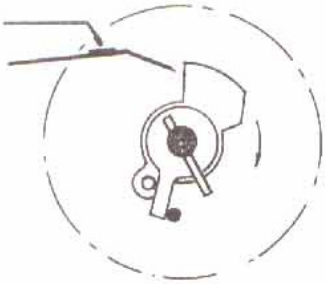
"Center Arbor Pin" engages "Sector Pin" and drives "Sector" to



"Contact - On" Position
Winding motor drives "Gear" (Winding Mainspring). "Mainspring Barrel Wheel Pin" engages "Knockaway-Piece"



"Knockaway Piece" reaches "Sector Pin" and rotates Sector to



"Contact - Off" Position.
Winding motor stops; "Gear" rests; "Center Arbor Pin" revolves; engages "Sector Pin" again; Etc.

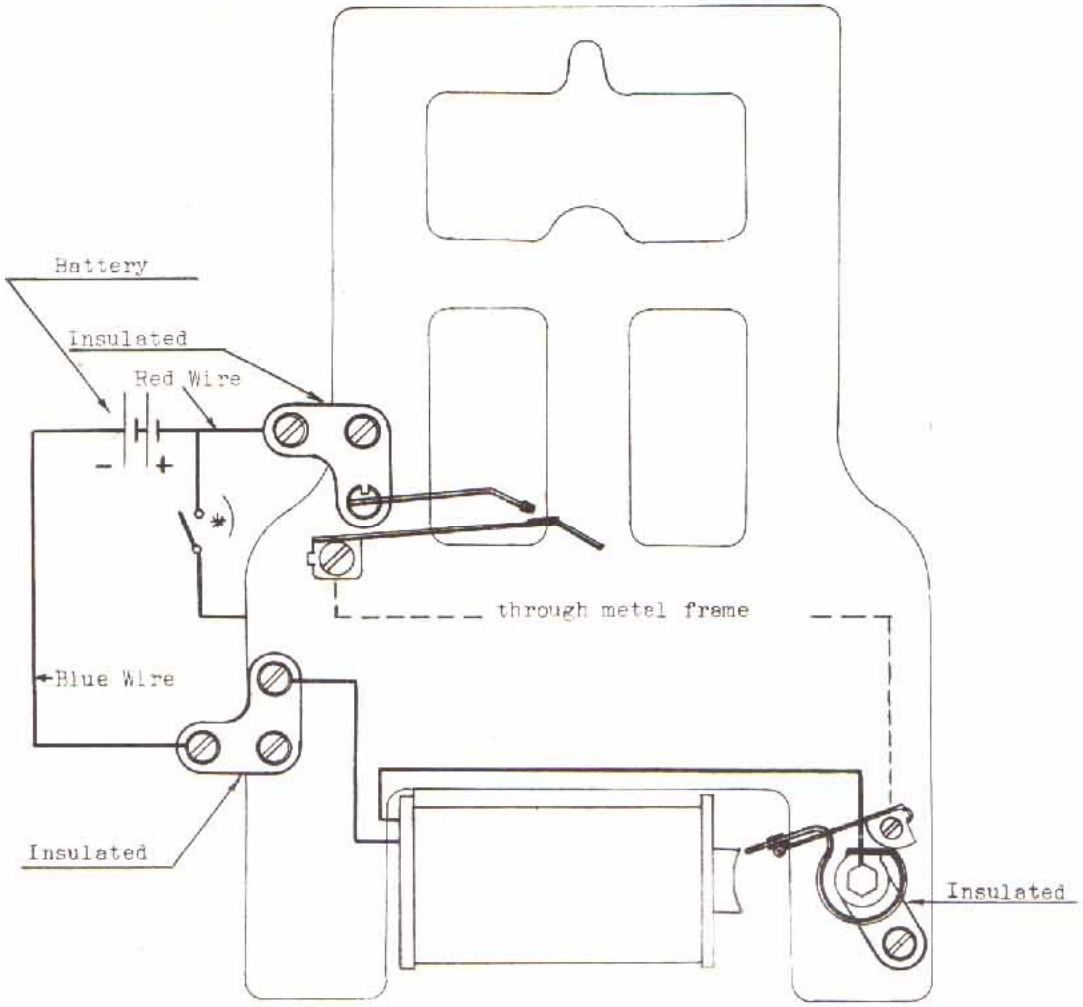
Prep. by: H. Maerz	Appr. by: H. M.	Issued: May 17, 1945	Supers.:

SWCC Instructions (continued)

ENGINEERING DEPARTMENT
Self Winding Clock Co., Inc., Brooklyn, N.Y.

INSTRUCTIONS
MODEL "F" | Sheet No. A-4

SUBJECT: General Description - Winding Circuit



*) Key for starting winding motor by hand.

Prep. by: H. Maerz	Appr. by: H. M.	Issued: May, 1945	Supers.:

SWCC Instructions (continued)

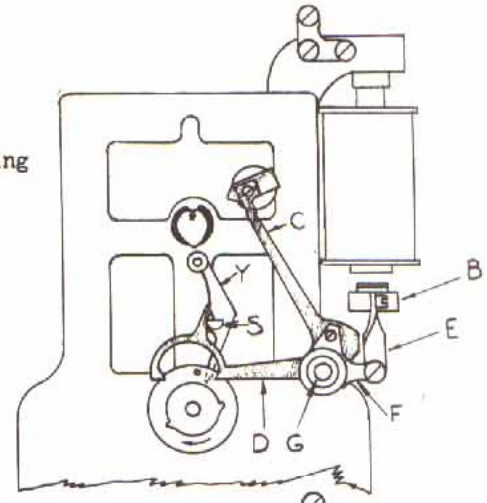
ENGINEERING DEPARTMENT SELF WINDING CLOCK COMPANY, INC., BROOKLYN, N.Y.	INSTRUCTIONS	
	Model "F"	Sheet No. A-5

SUBJECT: General Description - Synchronization

"Synchronizing" Magnet De-energized

Connecting piece (E) connects Armature (B) with Lever Arm (F) which is placed on Stud (G)

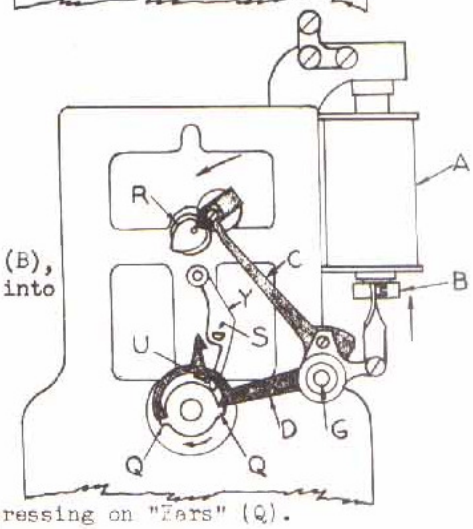
Minute Synchronizing Arm (D) is locked on Pin (S) of Sync. Latch (Y) at all times except during synchronizing periods.



"SYNCHRONIZING"

"Synchronizing" Magnet Energized

Cannon Socket Pin (U) has moved Sync. Latch Pin (S) thereby unlocking Arm (D). Magnet (A) pulls up Armature (B), which in turn pulls Levers (C) and (D) into synchronizing position.



Lever (D) synchronizes Minute Hand, pressing on "Ears" (Q).

Lever (C) synchronizes Second Hand, turning "Heart-Shaped Cam"(R) to zero position.

Prep. by: H. Maerz	Appr. by: H. M.	Issued: May 17, 1945	Supers.:

SWCC Instructions (continued)

SHEET B-2

INSTRUCTIONS FOR INSTALLING SELF WINDING CLOCKS

Styles 25, 37, 42 and 43 — 11" and 15" dials — metal cases and metal backs

Styles 27, 28 and 35 — 10" and 12" dials — wood cases and metal backs.

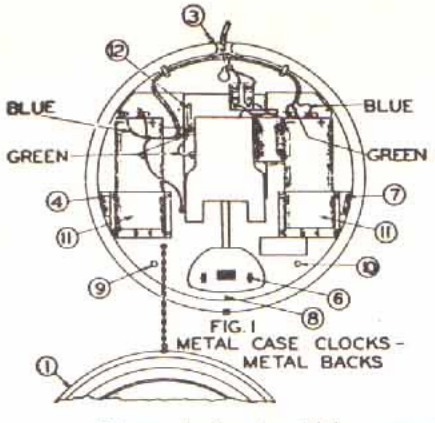


FIG. 1
METAL CASE CLOCKS - METAL BACKS

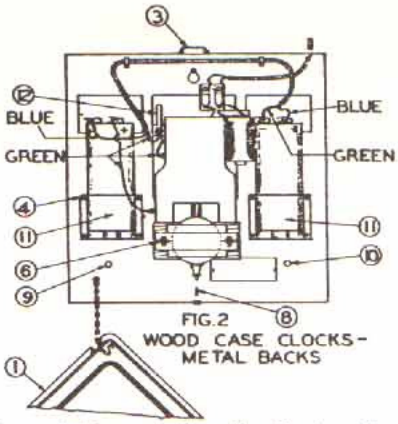


FIG. 2
WOOD CASE CLOCKS - METAL BACKS

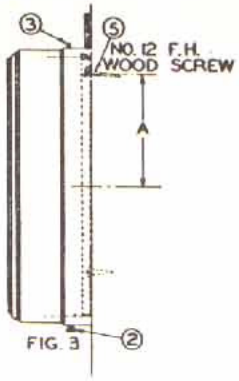


FIG. 3

These clocks should be mounted on rigid vertical walls. To install, proceed as follows:

1. Remove case front from metal back. Front (1) can be removed by loosening knurled screw (2) at bottom and lifting case off of pin or lip (3) at top. Remove straight out to prevent bending dial.
2. Screws for mounting clock on wall will be found fastened to left hand battery shelf at (4). Insert the large mounting screw (5) in wall with head pointing up. Locate screw directly above point where dial center is desired. Distance between dial center and mounting screw (Dimension A Fig. 3) can be ascertained from table below.

STYLE OF CLOCK	DISTANCE DIAL CENTER TO CENTER OF MOUNTING SCREW
Nos. 25, 37, 42, 43 — 11" dial	6"
" 25, 37 — 15" dial	8-5/16"
" 27, 28, 35 — 10" dial	5-5/8"
" 27 — 12" dial	5-5/8"
" 28, 35 — 12" dial	5-7/8"

3. Hang metal back on mounting screw and unfasten screws or wood block (6) holding pendulum. (Where pendulum is held by screws only, save blocking screws and wing nuts in loops (7) as directed) (Where wood blocks are used, set aside for future return shipment)
4. Plumb metal back on wall by shifting slightly until tip of pendulum rod lines up with index mark (8) on back. Be sure pendulum swings freely.
5. Insert two side steady screws in holes (9 & 10). Do not use nails for this fastening. If necessary to remove case for drilling holes for steady screws, reblock pendulum to avoid buckling suspension spring.
6. When case is firmly fastened to wall, insert two dry cells in metal holders (11). Connect wiring harness and pull time service wires through hole or groove at top of back for connection to Fahnstock connectors.
7. Wind clock movement by pressing key (12) at left hand side of movement plate for about ten seconds.
8. Start pendulum and set hands on time.
9. Reinstall case front. Top of case should catch on pin or lip at top of metal back. When case front is secure at top, push in lower part and turn up knurled screw at bottom, finger tight.

CAUTION: *Be sure case front is securely fastened to back so that it cannot fall off and result in injury or damage. Chain with hook is provided on each back to hold case front when removed for repair. Hook to battery holders (11) when not in use.*

IMPORTANT: *Before leaving premises, instruct subscriber how to remove case front and how to make Daylight Saving Time changes. Caution him never to turn hands backward and to make sure front is always refastened to metal back.*

SELF WINDING CLOCK COMPANY, INC.
NEW YORK

SWCC Instructions (continued)

SHEET B-3

INSTRUCTIONS

FOR INSTALLATION AND MAINTENANCE OF SWEEP SECONDS CLOCKS

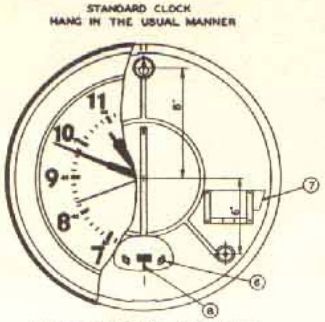


FIG. 1 - INSTALLATION

REMOVE PENDULUM BLOCKING SCREWS WITH WING NUTS (E) AND STORE IN LOOP (7) FOR USE WHEN RETURNING CLOCK. BEFORE FASTENING TO WALL, PLUMB METAL BACK WITH PENDULUM AT REST. PLUMB SO THAT RAISED CENTER LINE (A) ON PENDULUM, IS DIRECTLY IN LINE WITH MARK ON BACK. NOTE THAT CLOCK BEATS EVENLY. ALWAYS FASTEN PENDULUM TO METAL BACK BEFORE REMOVING CLOCK FROM WALL.

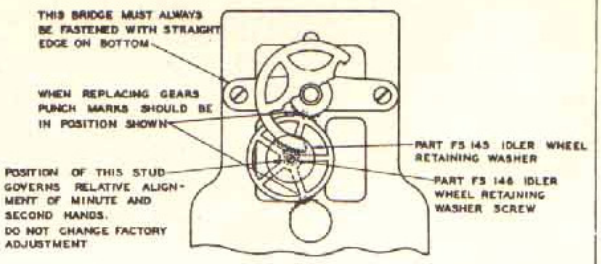
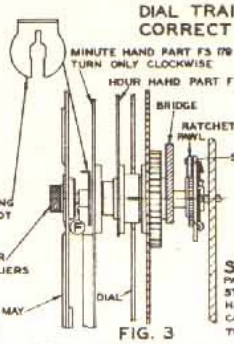


FIG. 2
DIAL TRAIN GEARING - SHOWING CORRECT RELATION OF TEETH

SWEEP SECONDS PARTS THAT MAY BE ORDERED FROM FACTORY

FS 145 IDLER WHEEL RETAINING WASHER
FS 146 " " " " SCREW
FS 172 MINUTE HAND " CLIP
FS 174 FRONT SECONDS ARBOR NUT
FS 180 SWEEP SECONDS HAND ASSEMBLY
OTHER MOV'T. PARTS EXCEPT SWEEP SECONDS PARTS AS LISTED ON W.U.T CO. STENCIL 1853 B



(PART FS 172) MINUTE HAND RETAINING CLIP INSERT WITH FINGERS DO NOT FORCE OR USE TOOL.

(PART FS 174) FRONT SECONDS ARBOR NUT MUST BE TIGHT USE CLOCK PLIERS DO NOT FORCE.

(PART FS 180) SWEEP SECONDS HAND MAY BE TURNED IN EITHER DIRECTION.

NOTE SPECIAL SHAPED HOLE IN SOCKET. SECONDS HAND CAN FIT ONLY ONE WAY. TO REMOVE, INSERT CLOCK SCREW-DRIVER AT POINT (F) AND TURN SLIGHTLY.

FIG. 3
SIDE VIEW OF HAND ARBOR AND RATCHET ASSEMBLY

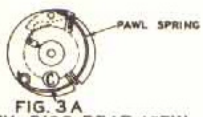


FIG. 3A
STATIONARY DISC REAR VIEW

PAWL SPRING IS PERMANENTLY ADJUSTED TO STANDARD TENSION AT FACTORY. IF SECOND HAND SHOWS TENDENCY TO SLIP, TENSION OF SPRING CAN BE INCREASED BY PRESSING ON SPRING AT (C) USE TWEEZERS.

FIG. 4A
TYPE A SYNCHRONIZING LEVER FORK
(EARLY MODEL SWEEP SECONDS CLOCKS)

IF FORK STICKS WHEN CLOCK IS SYNCHRONIZED INCREASE CLEARANCE BETWEEN FORK AND ROLLER BY INSERTING CLOCK SCREW-DRIVER AT POINT INDICATED BY ARROW AND TURNING SLIGHTLY.

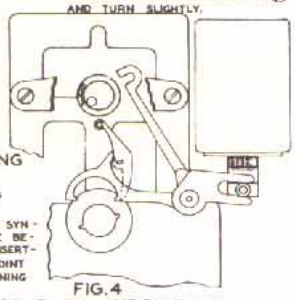


FIG. 4
TYPE B SYNCHRONIZING LEVER IN NORMAL POSITION (PRESENT SWEEP SECONDS CLOCKS)
LATCH RELEASED READY FOR SYNCHRONIZING.

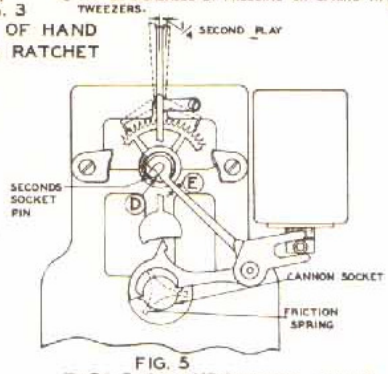


FIG. 5
TYPE B SYNCHRONIZING LEVER IN SYNCHRONIZED POSITION
(PRESENT SWEEP SECONDS CLOCKS)

NOTE NECESSARY CLEARANCE BETWEEN SECONDS SOCKET PIN AND SYNCHRONIZING FORK AT (D) WITH SYNCHRONIZING LEVER HELD CLOSED, SECOND HAND SHOULD HAVE 1/4 SECOND PLAY ±. IF HAND HAS NO PLAY, PLACE PLIERS AT POINT (E) AND ADJUST FORK SLIGHTLY UPWARD, UNTIL 1/4 SECOND PLAY IS OBSERVED.

SELF WINDING CLOCK COMPANY, INC.
NEW YORK

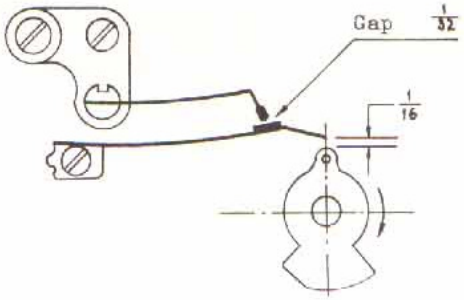
SWCC Instructions (continued)

ENGINEERING DEPARTMENT
SELF WINDING CLOCK CO.,INC., BROOKLYN, N.Y.

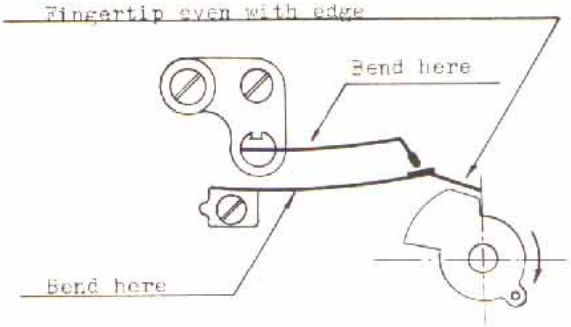
INSTRUCTIONS
Model "F" | Sheet No.C1

SUJECT: Adjustment of Hourly Winding Circuit Closer

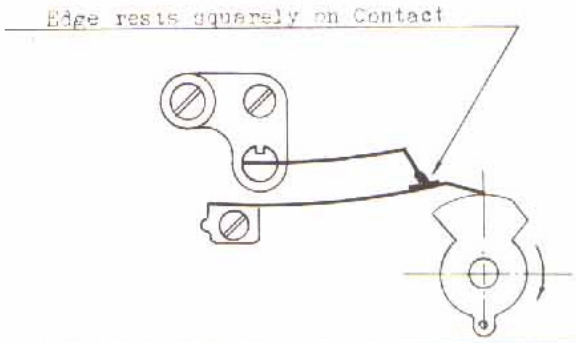
OPEN



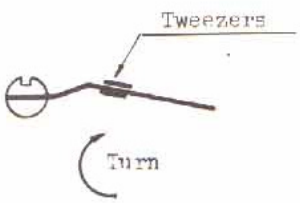
CLOSING

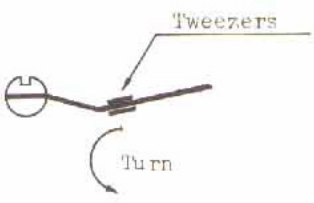


CLOSED



BEND SPRING AS SHOWN. (Exaggerated)



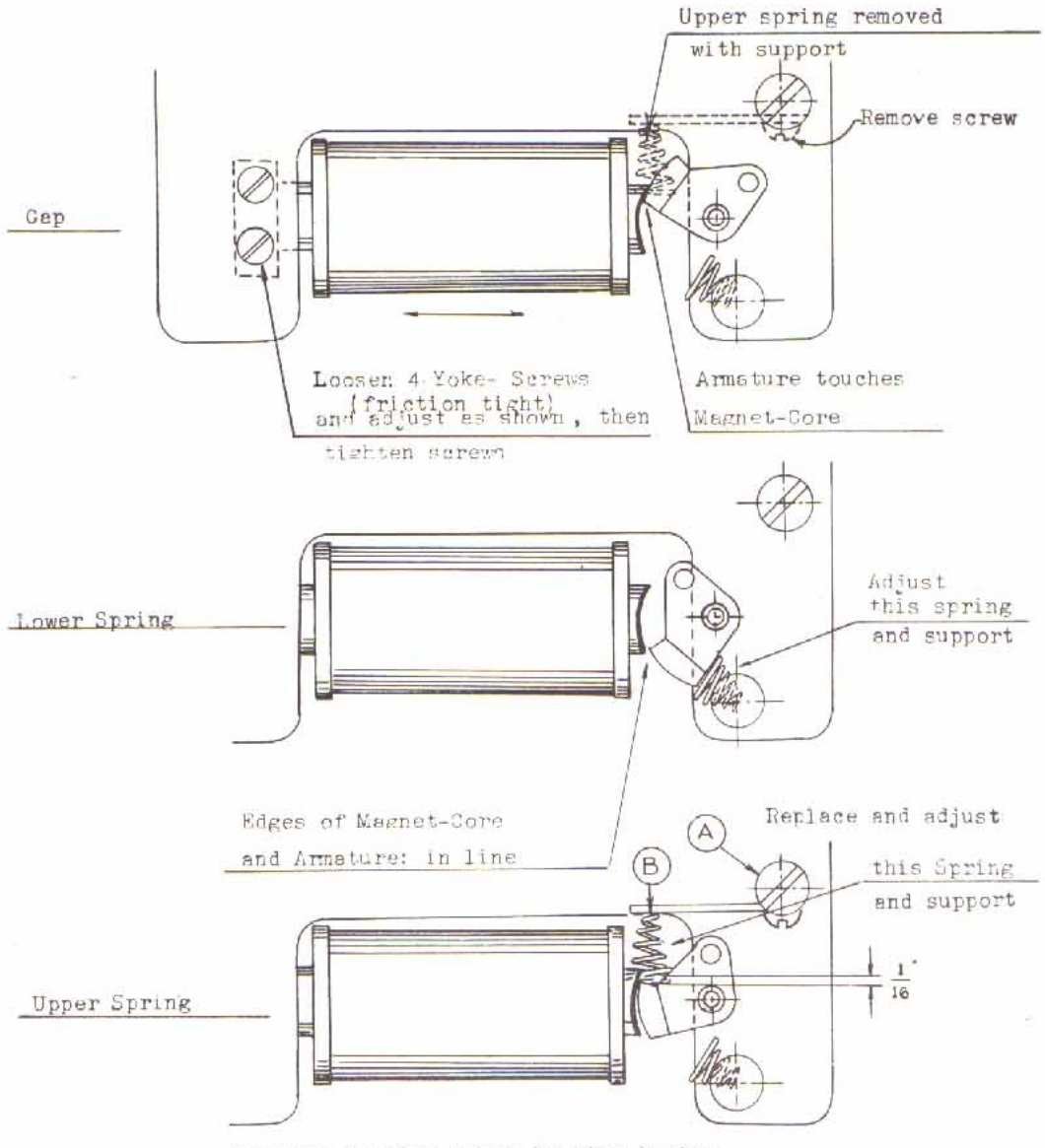


Prep. by:H. Maerz	Appr. by: H. M.	Issued: May 14, 1945	Supers.:

SWCC Instructions (continued)

ENGINEERING DEPARTMENT SELF WINDING CLOCK CO., INC., BROOKLYN, N.Y.	INSTRUCTIONS	
	Model "F"	Sheet No. C2

SUBJECT: Adjustment of Motor Magnet and Armature



NOTE: To adjust upper spring, loosen screws "A" (friction tight), front end rear plates and set support up or down. Tighten screws "A" front and rear. Loosen screw "B" and turn spring so end of same is flat against armature.

To adjust lower spring, remove same and compress with pliers if too long.

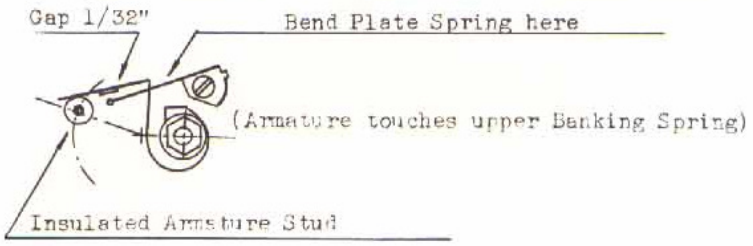
If too short, grip last turn with pliers and pull out.

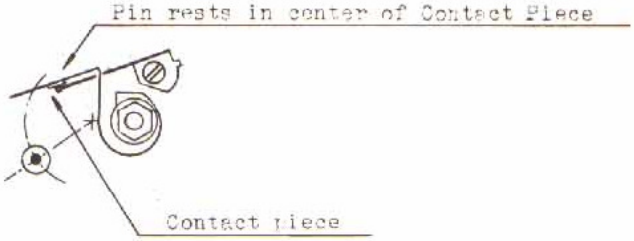
Prep. by: H. Maerz	Appr. by: H. M.	Issued: May 14, 1945	Supers.:

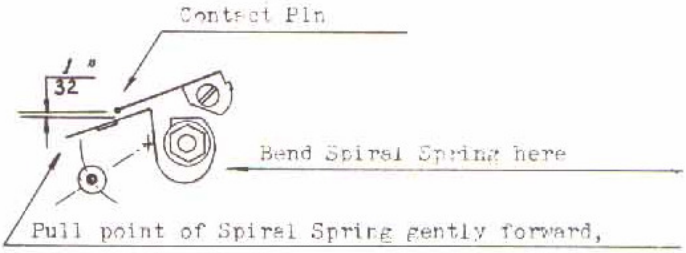
SWCC Instructions (continued)

ENGINEERING DEPARTMENT SELF WINDING CLOCK CO., INC., BROOKLYN, N.Y.	INSTRUCTIONS	
	Model "F"	Sheet No. C3

SUBJECT: Adjustment of Motor Contacts







(using light pair of tweezers) and let it drop under Contact Pin - adjust - and restore spring to original position.

Check Springs on both sides of Contact over full width and for appr. simultaneous "Break" and "Make".

Prep. By: H. Maerz	Appr. By: H. M.	Issued: May 14, 1945

SWCC Instructions (continued)

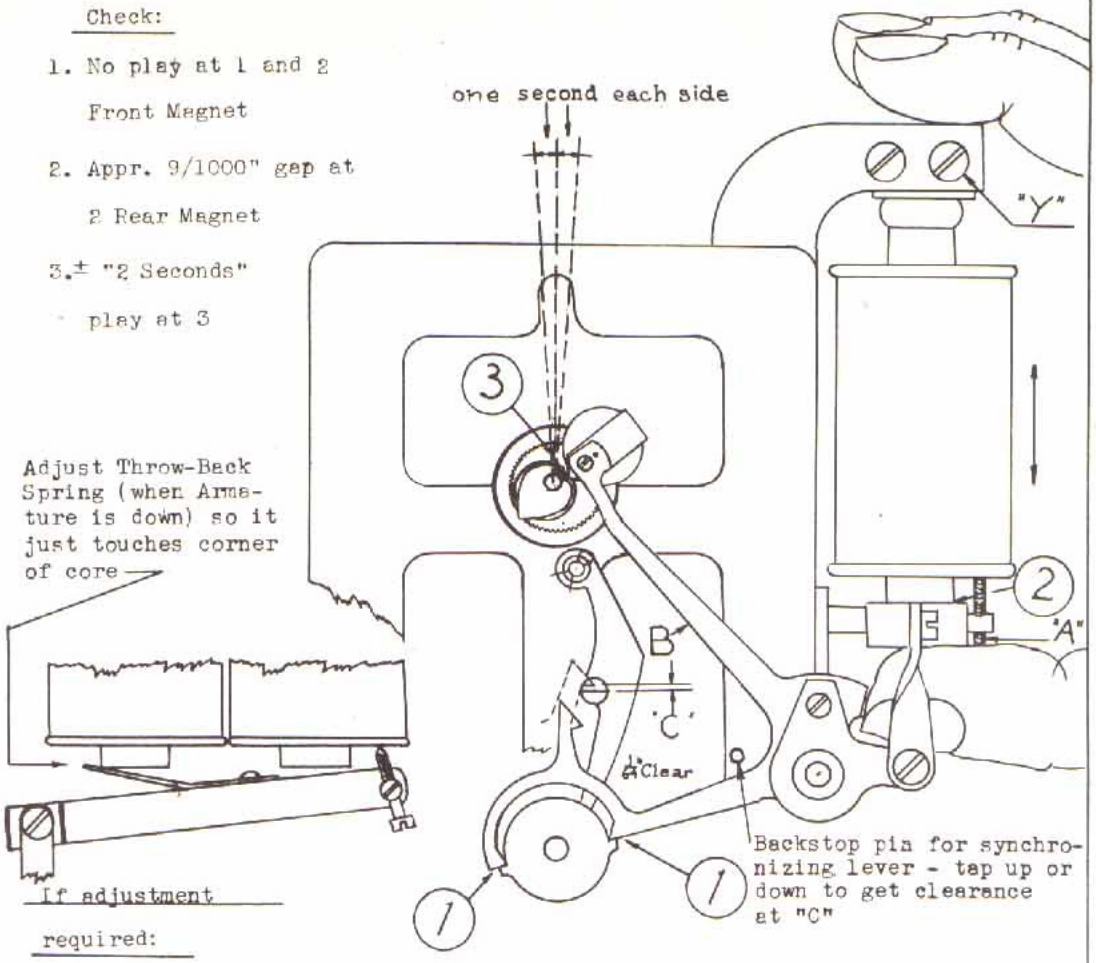
ENGINEERING DEPARTMENT SELF WINDING CLOCK CO., INC., BROOKLYN, N.Y.	INSTRUCTIONS Model "F"	Sheet No. C4

SUBJECT: Adjustment of Synchronizing Levers etc.

Press firmly as shown

Check:

1. No play at 1 and 2
   Front Magnet
2. Appr. 9/1000" gap at
   2 Rear Magnet
3. ± "2 Seconds"
   play at 3



If adjustment required:

1. Loosen 4 Yoke Screws "Y" and Screw "A"; adjust Magnet; tighten 4 Screws "Y"
2. Tighten Screw "A" until gap 9/1000" (Appr. 3 layers of newspaper) under Rear Magnet.
3. Bend Synchronizing lever at "B" for play at 3.

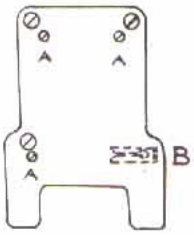
Prep. by: H. Maerz	Appr. by: H. M.	Issued: May 17, 1945	Supers:

SWCC Instructions (continued)

ENGINEERING DEPARTMENT SELF WINDING CLOCK COMPANY, INC., Brooklyn, N.Y.	INSTRUCTIONS	
	MODEL "F"	Sheet No.D-1

SUBJECT: Maintenance - Cleaning and Oiling

1. REMOVE: Movement from case



a. Hands
Unscrew knurled nut
Pry off minute hand with screw driver
Remove hour hand by grasping at center with fingers and, while pulling, turn back and forth.

Movement with sweep seconds hand: Remove small knurled nut. Insert small screw driver between clip and hand socket and pry a little at a time, turning hand to a new position at each pry. Remove clip and proceed to remove minute and hour hands as above.

b. Dial
Remove four dial screws

c. Wires
Remove winding battery leads, synchronizing circuit and any wires to contacts

d. Movement
Unscrew three bracket screws "A"
Remove bracket clamp "B"

e. Dial Train
Unscrew two knurled nuts

f. Heart-Shaped Seconds Socket
Remove contact assembly, if any
Remove small, headless screw (end of arbor)

g. Synchronizing Levers
Remove knurled nut on stud

2. BRUSH: All bearings and pivot holes. Use Pyrene or similar non-combustible cleaning fluid on stiff marking brush (spin wheels while cleaning to drive out dirt). Allow to saturate for two or three minutes.

3. WIPE: Plates and arbors (Use cheese cloth on flat wood piece)

4. OIL: All bearings and pivots (Use fine wire or heavy needle)
Use on drop on all pivots
Trace of oil on center arbor nut and pallets
Vaseline on winding lever and pin on motor armature

5. CHECK: All contacts. Must be dry and clean. Smooth out all grooves with fine emery cloth.

6. REPLACE: All parts previously removed

Prep. by: H. Maerz	Appr. by: H. M.	Issued: May 17, 1945	Supers.:

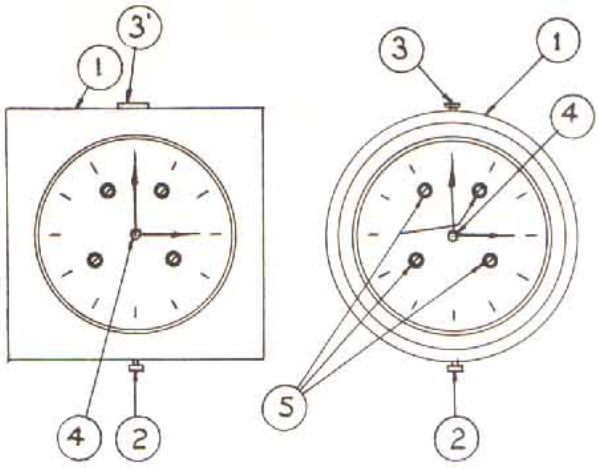
SWCC Instructions (continued)

ENGINEERING DEPARTMENT SELF WINDING CLOCK CO., INC., BROOKLYN, N.Y.	INSTRUCTIONS Model "F"	Sheet No. D2

SUBJECT: **Maintenance - Exchanging Movements, etc.**

1. To remove Case Front (1)

Loosen nut (2); lift case off pin (3) on lip (3'); tilt out front bottom and move straight out to prevent bending dial.



2. To remove Hands

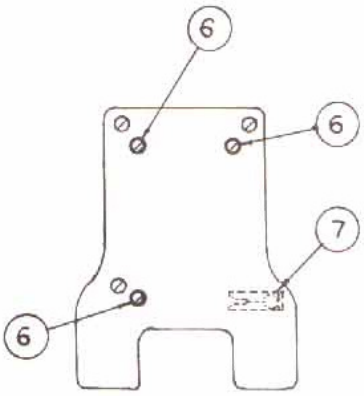
Unscrew knurled Nut (4) and pry off Hands with screwdriver.
Sweep Seconds Hand: Insert small screw driver between clip and hand socket and pry a little at a time, turning hand to a new position at each pry.

3. To remove Dial

Unscrew four screws (5)

4. To remove Movement

First remove all wires
Unscrew three screws (6) and pull clamp (7) out to the right



5. Metal Property Tag

Tag must be removed with movement and returned with it

Prep. by: H. Maerz	Appr. by: H. M.	Issued: May, 1945	Supers.:

SWCC Instructions (continued)

ENGINEERING DEPARTMENT SELF WINDING CLOCK COMPANY, INC., BROOKLYN, N.Y.	INSTRUCTIONS	
	Model "F"	Sheet No. D3

SUBJECT: Directions for Setting Up Turns on Mainspring

1. Remove Front Plate of Movement and take out Center Arbor Assembly

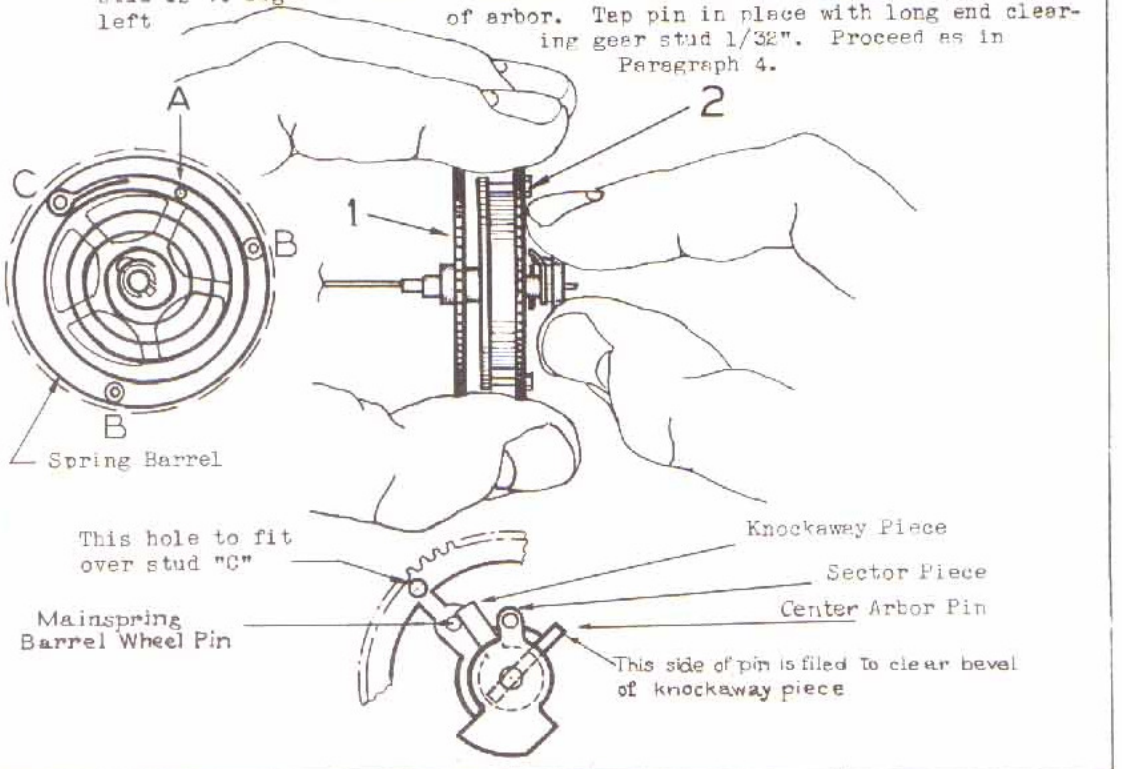
2. Grasp both gears firmly with left hand and slide off "Sector" and Knockaway Piece as shown.

3. Grasp Gear (2) with right hand and let Spring unwind SLOWLY by loosening grip on Gear (1) slightly.

4. Grasp Gear (1) and turn Gear (2) counter-clockwise (facing Gear (2)) until longer end of Arbor Pin is in line with Gear Stud. Now make desired number of turns plus 1/4 turn. Insert "Knockaway Piece" and "Sector Piece" as shown.

5. Reinstall Center Arbor Assembly.

6. If new spring is installed, proceed as in paragraphs 1, 2 and 3. Then knock out arbor pin and unscrew 3 nuts to remove barrel wheel "2". Install new spring with start of first turn outside of pin "A". All turns to be inside studs "B" and "C". Be sure slot at end of spring engages pin on spring hub. Replace gear and tighten 3 nuts. Hold arbor so pin hole is vertical (spring completely unwound). Insert arbor pin from top if gear stud is to right of arbor or insert pin from bottom if gear stud is to left of arbor. Tap pin in place with long end clearing gear stud 1/32". Proceed as in Paragraph 4.

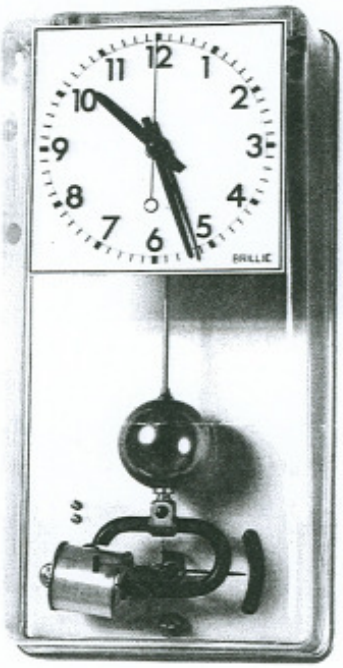


Prep. by: H. Maers	Appr. by: H. M.	Issued : May 17, 1945 Supers.

Brillié regulator or master-clock

regulator or
master-clock

standard 1599 type
synchronized 1599 type



Brillié

Brillié regulator or master-clock (continued)

regulator or master-clock

The regulator or master-clock is powered by an electro-magnetic movement with a balance-wheel which can work about 3 years continuously.
It is supplied by a standard battery Brillié (1,3 V) and equipped with contacts of time-distribution producing reversed impulses of 1/2 minute.

On call this system can be fitted with :
synchronizing contacts producing impulses of 1 or 2 seconds,
special contacts,
regulating coil,
synchronizing coil,
battery with operating reserve for several days,
half-waterproof case fitted with ledge and that can be locked.

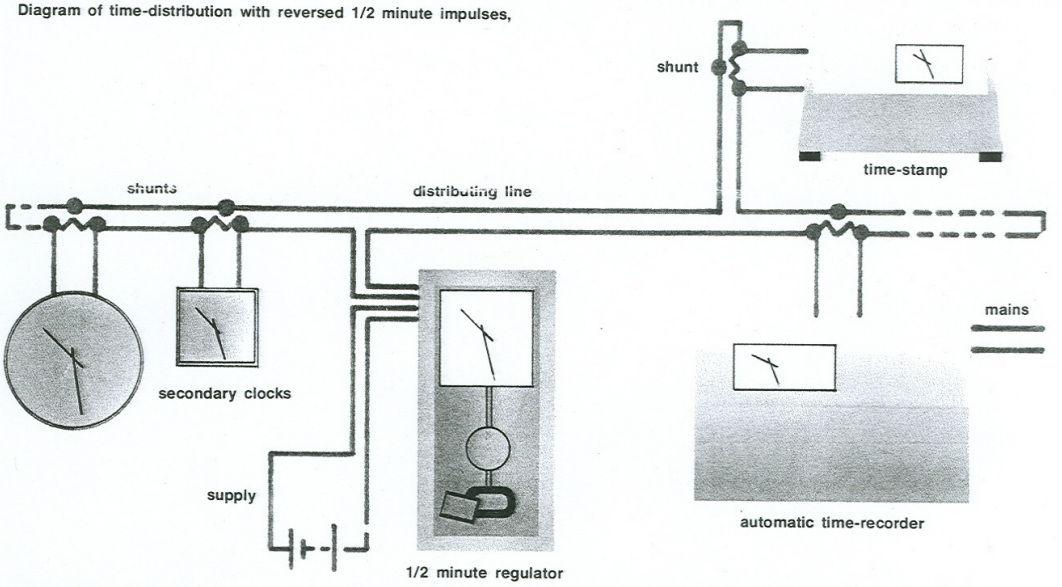
It can be synchronized permanently :
by means of the pips transmitted by the speaking clock through a specific telephone line,
by means of the second-pips sent out by the atomic clock (accuracy : 10^{-12}) of the observatory of Neuchâtel and relayed by the transmitting station of Prangins (Switzerland).

In both cases the regulator gives the accurate time permanently.

- Accuracy : 10^{-5} that is to say :
- 1 second per day approximately
- movement mounted on a base out of duralumin,
- balance-wheel with « Invar » rod which ticks every half a second,
- regulating ball out of solid bronze,
- center-second hand,
- magnetic regulation,
- all the visible parts white,
- case out of transparent altuglas,

- square dial of 6,3'' (16 cm) with Arabic numerals,
- dimensions : 17,7 × 9,84 × 5,51'' (45 × 25 × 14 cm)
- weight : 13,3 lb (6 kg)

Diagram of time-distribution with reversed 1/2 minute impulses,

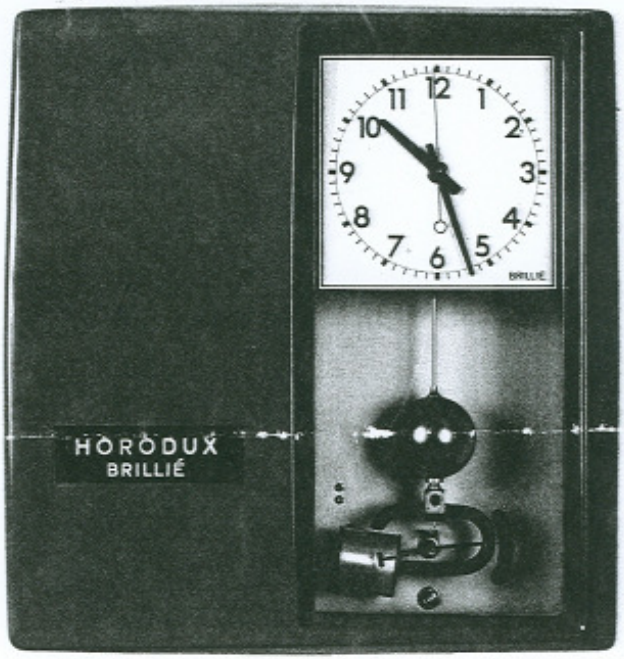


Brillié

Brillié Horodux

The Horodux control systems

Chronometrical switch-gear
« 2 circuit central »
« C.E.R.T. central »
« Central of the postal & telegraph services type »
« Building central »



Brillié

Brillié Horodux (continued)

the Horodux control systems

designed for the time-distribution in school-blocks, colleges and grammar-schools, offices, factories, telephone exchanges, power stations, publics buildings, etc.
It is housed in a laminated case with rim and base out of duralinox.

Chronometrical switch-gear

It centralizes the controls of ringing, time-distribution as well as setting.
It includes :
one 1599 regulator with an operating reserve of 2 years by means of a standard battery, with contact of time-distribution producing reversed impulses of 1/2 minute.
one SAM 510-42 program instrument which starts the bell every 5 minutes, in accordance with one to four weekly programs on one to four circuits.
one time-delay relay designed to regulate the duration of the ringing.
one checking and setting system with clock for the checking of the circuit, regulating resistance, setting key, fuse.

« 2 circuit-central »

It centralizes the controlling and the checking and setting elements for two circuits of time-distribution.
It includes :
one 1599 regulator with an operating reserve of 2 years by means of a standard battery, with contact of time-distribution producing reversed impulses of 1/2 minute.
one power relay
2 checking and setting systems with clock for the checking of the circuit, regulating resistance, setting key, fuse.

« C.E.R.T. central »

It sends out reversed impulses of 1/2 minute designed for a circuit of time-distribution and reversed impulses of 1/2 second for recorder-circuit.
It includes :
one 1599 regulator with an operating reserve of 2 years by means of a standard battery, with contact of time-distribution producing reversed impulses of 1/2 minute, synchronizing coil and contact.
one RB88 power relay which sends out reversed impulses of 1/2 second, capacity : 10 A/127 v.

« Central of the postal & telegraph services type »

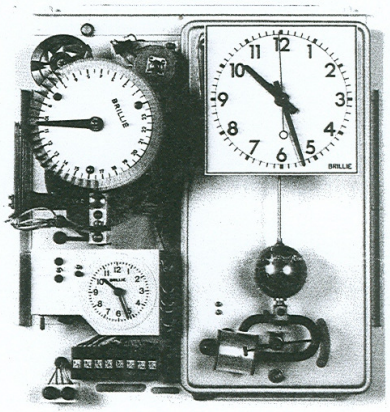
It centralizes the controlling, supplying, checking as well as the setting.
It includes :
one 1599 regulator with an operating reserve of 2 years by means of a standard battery, with contact of time-distribution producing reversed impulses of 1/2 minute.
one checking system (similar to that used by the Postal & Telegraph Services) with clock for the checking of the circuit, voltmeter, milliammeter, regulating resistance, setting key and automatic fuses.
one automatic charger of 6, 12 or 24 v.
one sender of direct or reversed impulses of 1 and 5 seconds (similar to those used in telecommunications).

« Building central »

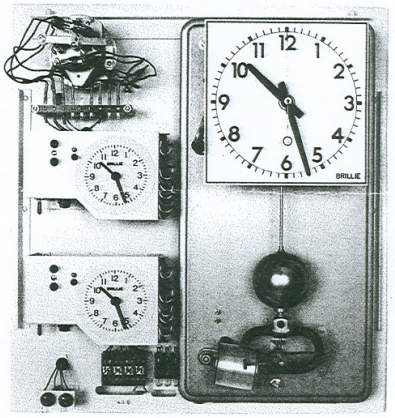
It centralizes the controls of time-distribution as well as setting and those designed for the ringing of an electric bell every half an hour
It includes :
one 1599 regulator with an operating reserve of 2 years by means of a standard battery, with contact of time-distribution producing reversed impulses of 1/2 minute.
one checking and setting system for secondary clock with checking clock, regulating resistance, key, fuse.
one SCC.HD.R ringing device designed for the starting of an electric bell every half an hour.

Brillié

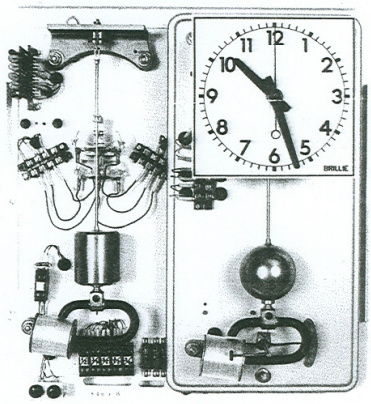
Chronometrical switch-gear



« 2 circuit-central »



« C.E.R.T. central »

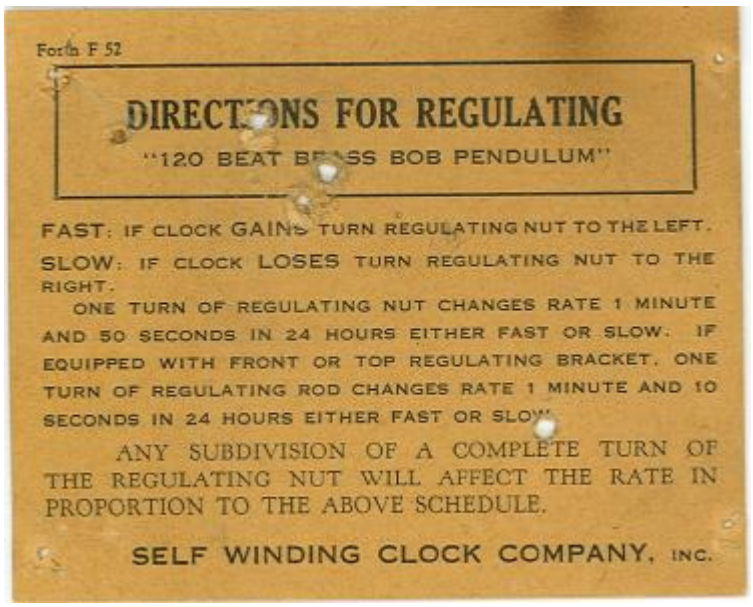


Touching–up a SWCC label

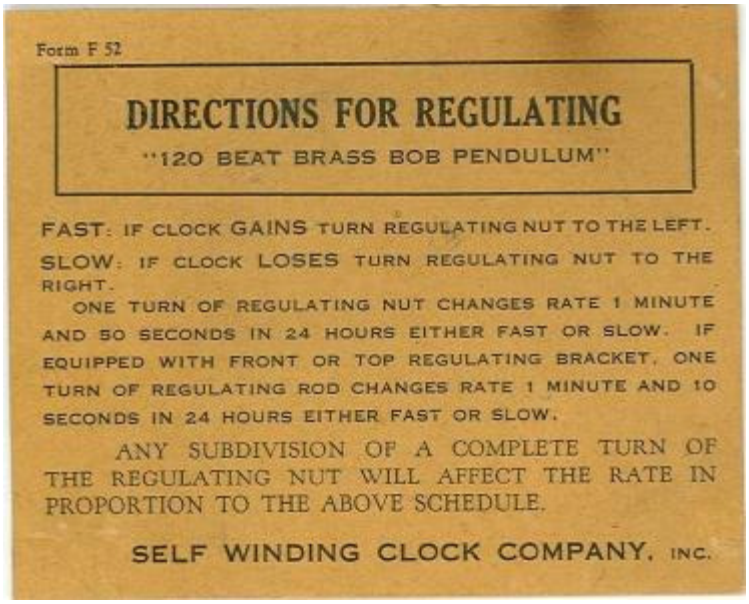
You don't have to be an artist to touch-up an old label riddled with tears and holes from where the pendulum came to rest during transportation or storage. All you need is access to scanner, a computer with the Windows operating system and a printer (preferably color). Below is an example of a label I retouched using the rather basic “Paint” program that comes standard with Windows. I know there are more powerful programs you can use, but I wanted to demonstrate you don't need to spend a lot of money on fancy software to get some amazing results. Since I’m more of a PC than a Mac, I can’t advise you on what software you can use on a Mac, but I’m sure they come loaded with software that is equally up to the task.

On the next page I’ll try and walk you thru a couple of simple steps that will allow you to get immediate results.

BEFORE



AFTER



Touching–up a SWCC label (continued)

What a mess!

After a little work!

Much better!

Step 1: Under the View tab, zoom the area you want to repair to about 600 x 600px.

Step 2: Try to copy existing letters and shapes you can use to paste over the distressed areas. In this example, I chose to copy the "I" and "O" to paste over the damaged letters. Back under the Home tab click the rectangular selection shape. Enclose the letter you want to copy with the selection box, left click, move the cursor into the box, right click and select Copy. Move the cursor out of the selection box and right click again. Select Paste, and your copied area will appear in the upper left hand corner of the display. Use the mouse to drag the copy you made over the area to be repaired. When you are happy with the placement, hit the escape key. If you make a mistake you can always hit the undo icon or type Ctrl+z.

Step 3: Repeat the above step to repair damaged shapes like the boarder in the upper figure.

Step 4: Copy background areas to cover defects. In this example, I filled in the holes. Try to use areas adjacent to the damaged area to get a seamless blend.

Tip: Frequently save intermediate copies as you work so you can easily recover from errors. Nobody's perfect.

Step 5: Print your work!

You can experiment with some of the other Paint features like the color picker or the pencil to fill in one pixel at a time. This is a more advanced technique that you may want to try your hand at.

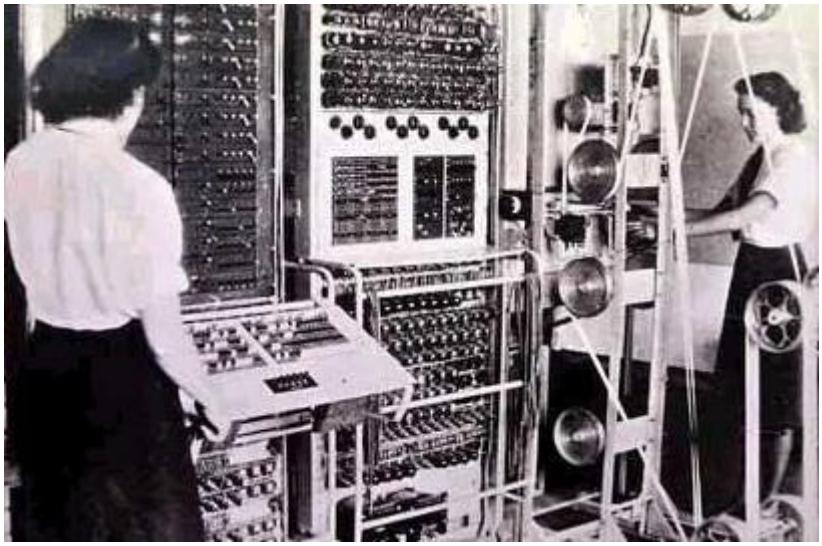
That's all there is to it! Remember, practice makes perfect.

Tony Bolek

Electric Horology Links

Calling all Members:

If you have a link to an interesting internet site you think other members may enjoy visiting, let us know and we build a list in the Journal. Of course it should be about electric clocks or watches. Sites with information about repair and restoration tips and techniques are also encouraged.



Here are a few links to get things started. We can categorize the list as it grows.

1) http://revereclocks.com/index.php?p=1_9_History-of-Revere-GE-Clocks
2) http://clockhistory.com/telechron/warrenclockco/
3) http://www.ahsoc.demon.co.uk/ehg/electricalindex.html
4) http://www.roger-russell.com/jeffers/jefhour.htm
5) http://electric-clocks.com/
6) http://www.abbeyclock.com/western.html
7) http://www.telegraph-office.com/pages/time.html
8) http://www.nawcc.org/museum/nwcm/galleries/precision/precision.htm
9)

Mart Ads

All Mart Ads are FREE:

- Send copy to the attention of the Editor: Tony Bolek 55500 Cleveland Shelby Township, MI 48316
- Limit 3 Lines

Hard to Find Parts

BULLE Suspension assemblies, fabric type, just like originals. TIFFANY Single Contact suspensions springs (.004"). Clock Trade Enterprises (CTE), Box 264, St. Clair Shores, MI 48080; (313) 882-9380

TIFFANY Double Contact Suspension Springs: Use a Hamilton Ladies Watch Mainspring, Specifications: HAMILTON 6/0 #2521, 1.4mmx 0.12mm x 11 ¼". Available from: Bill Schroeder @ &3.00 each + postage. 6033 N. Sheridan Rd., #31H, Chicago, IL 60660; (773) 275-2563. Also available from most watch parts suppliers.

For Sale

Telechron B rotors rebuilt using Telechron factory tooling, parts and paperwork. Most commonly used rotors are in stock for a quick turnaround. Also repair service offered for Telechron, GE, Revere and Hershede electric clocks. All Good Time Clock Service, 119-B Courtland St., Rockford, MI 49341; (866) 914-8463

Glass dome for the large Bulle clock. We also have glass domes for the Tiffany Never Wind, Barr, Poole, and Kundo clocks. If I don't have it in stock, I'll try to get it. Ben Bowen, PO Box 4718 Dowling Park, FL 32064; (386) 658-1167; E-mail me at www.glassdomes.com.

CD containing over 100 electric clock systems, such as ATO, Brillie, Bulle, Campiche, Eureka, Garnier, Gent, Hipp, Holden, Magneta, Poole, Scott, Shortt, Synchronome, Tiffany, Vaucanson, Wagner, Warren & many more. Price $30, includes shipping. J. E. Bosschieter; E-mail me at BoscoClocks@Zonnet.nl.

"A Guide to Electrical Horology" by Martin Swetsky, FNAWCC. A step by step book on the repair and servicing of Tiffany Never Wind, Poole & Barr, Bulle, Eureka, Synchronome, Self Winding, American Clock Co. (Chicago), Standard Electric, ATO, Sempire, NoKey, Brille, Pulsynetic, etc. Cost $42.00 Post Paid. Contact Michell Swetsky, 10 Chelsea Way, Fairport, NY 11450; E-mail me at www.SwetskyNY.net/agteh or MSwetsky@Rochester.rr.com.

Electronic "master clock" for old slave dials: $50. "Governor" makes Eureka clocks keep quartz-accurate time with no change to the clock: $95. Voltage regulators: $35 to $55. Bryan Mumford, 3933 Antone Road, Santa Barbara, CA 93110; (805) 687-5116; E-Mail www.bmumford.com.

BANGOR Electric Clock Parts, New Factory original parts ... too many to list separately. Call or e-mail with your needs. Elmer Crum; (727) 868-0181; E-mail at electrichorology@juno.com.

Tower & Street Clocks - Electric Time Company, manufacturers new tower and street clocks. Exact replacement movements for Telechron large clocks. Electric Time Company, Inc., 97 West Street, Medfield, MA, USA (508)-359-4396/800-531-2562 FAX 508/359-4482 – http://www.electrictime.com – sales@electrictime.com

I have set up a facility to rewind the coils for Kundo and Jungens moving magnet pendulums. If anyone is interested in this, contact me John R. (Jack) Seeley, FNAWCC, at jackclok@bellsouth.net. Suggestions welcome, since I have not decided on a price.

CONTACT INFORMATION

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