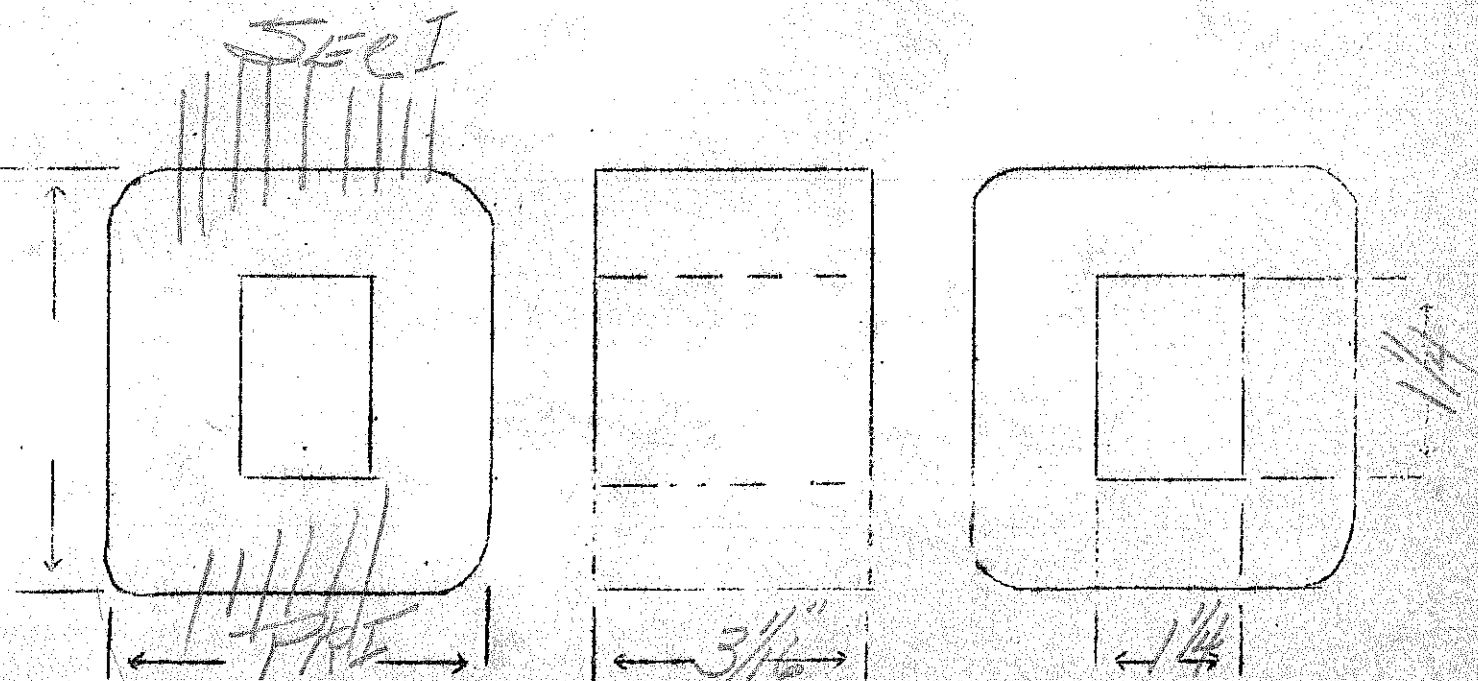


Primary
Secondary
Filament No. 1
Filament No. 2
Filament No. 3

Voltage _____
Current _____

Specification No. 1000
Type Transformer _____

| | FRT | SHIELD | SEC I | SEC II | SEC III |
|--------------------|---------------------------|--------------------|---------------------|---------------------|-------------------|
| TURNS | 1000 | 1 | 4000 | 400 | 40 |
| TAPS | 550-700 460-340 | NONE | 10 TAPS 40 EA | 10 TAPS 40 EA | 10 TAPS 40 EA |
| LENGTH OF WINDING | 2 $\frac{13}{16}$ " | 3 $\frac{1}{16}$ " | 1 $\frac{11}{32}$ " | 1 $\frac{11}{32}$ " | 1 $\frac{1}{2}$ " |
| SIZE WIRE | 20E | .003 Copper | 30E | 30E | 30E |
| TURNS PER LAYER | 80 | 1 | 100 | | |
| KIND OF TERMINAL | WIRE ONLY | 5.1 BA | WIRE ONLY | 5.1 BA | 5.1 BA |
| LENGTH OF TERMINAL | | | | | |
| TUBE | 62007 32005 VC WRAPPER | FRT WRAPPER | SHIELD WRAPPER | SEC I WRAPPER | SEC I WRAPPER |
| LAYER INSULATION | 50661 | | 20661 | 20661 | 20661 |
| WRAPPER | 32005 VC | 32005 VC | 12005 VC | 12005 VC | 32005 VC |
| TREATMENT | | | | | |
| RESISTANCE | | | | | |



Max $N_p = 95 = 450$

Max $N_c = 2 \frac{1}{2}$

$T_{PL} = 10 \text{ TPL} = 50 \text{ TPL}$

$$\begin{array}{r} 10500 \\ 10500 \\ \hline 21000 \end{array}$$

Max $N_p = 95 = 450$

$$I = \frac{E}{N} = \frac{25}{15} = 1.665$$

$$\begin{array}{r} 0100 \\ 1000 \\ \hline 1100 \end{array}$$

$$I = \frac{E}{N} = 5 \frac{1}{11} \times 50 \quad \Phi = 225000$$

$$\begin{array}{r} 225000 \\ 10000 \\ \hline 235000 \end{array}$$

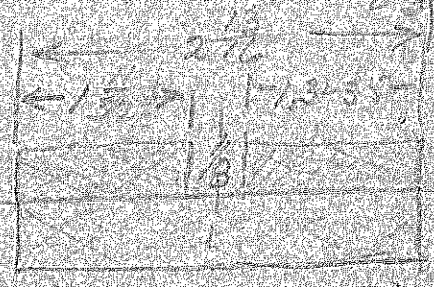
$I = 0 = 75000 \quad A = 3 = 1 \frac{1}{11} \times 2 \frac{1}{2}$

$$\begin{array}{r} 0300 \\ 1000 \\ \hline 1300 \end{array}$$

No. 30 = ~~675~~ 75

Max $N_p = 145 = 1090$

$$I = \frac{E}{N} = .25$$



$N_p = 1000$

$N_c = 465 = 465$

No. 30 = 115 TPL $400 \text{ TPL} = 350 = 1 \frac{1}{11}$

$$I = \frac{E}{N} = 105 \frac{1}{11} \times 50 \quad \Phi = 112500$$

$I = 0 = 75000 \quad A = 1.5 = 1 \frac{1}{11} \times 1.2$

□ □ □ □

RELAY TRANSFORMER

110V Pri @ 602

TO
6V, 14V, 18V Sec.

Note: This number assigned to a "Blank" Transformer

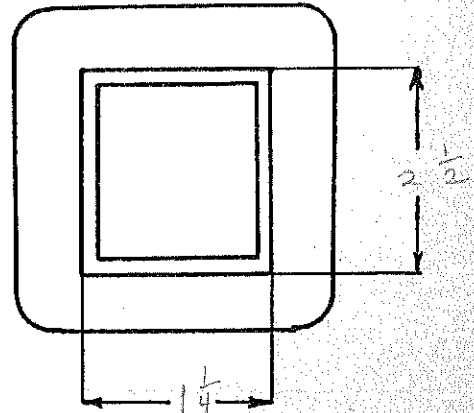
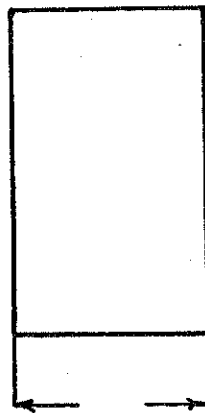
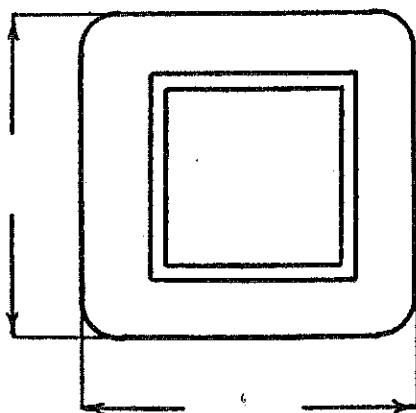
SPEC. NO. 1001

| | | | | | | | |
|--------------|--|--|--|--|--|--|--|
| Winding | | | | | | | |
| Turns | | | | | | | |
| Taps | | | | | | | |
| Wind. Lgth. | | | | | | | |
| Wire Size | | | | | | | |
| T. P. L. | | | | | | | |
| Finish | | | | | | | |
| Type Lead | | | | | | | |
| Lead Lgth. | | | | | | | |
| Layer Insul. | | | | | | | |
| Test Volt. | | | | | | | |
| Wrapper | | | | | | | |

| | | | |
|------|--|--------------|--|
| TUBE | | IMPREGNATION | |
|------|--|--------------|--|

| | | | |
|------|--|-------|-------|
| CORE | $1\frac{1}{4}'' \times 2\frac{1}{2}''$ GA. | GRADE | STACK |
|------|--|-------|-------|

| | |
|----------|----------|
| MOUNTING | "S" mtg. |
|----------|----------|



DESIGNED BY

DATE

FRENCH

WINDING LENGTH = $2 \frac{13}{16}$

WIRE - No. 20 E - 80 T.P.L. - 12 L

TURNS = 935 TAPS: 930-925-920-915-910-905-900-895-890 and 45 B

START AT AND ALL TAPS ON SAME END AND END SECONDARY

~~SEC. 1 - 67 No. 10 Tap 3 ONE WINDING
SEC. 2 - 45T No. 16 Tap 2 TWO WINDINGS~~ } 1st Layer

~~SEC. 3 - 45T No. 20 Tap 4 ONE WINDING
SEC. 4 - 45T No. 16 Tap 10 TWO WINDINGS~~ } 2nd Layer

~~SEC. 5 - 10T No. 13 Tap 5 TWO WINDINGS
SEC. 6 - 4T No. 20 Tap 6 TWO WINDINGS~~ } 3rd Layer

~~SEC. 7 - 30T No. 18 Tap 15 TWO WINDINGS~~ } 4th Layer

~~SEC. 8 - 50T No. 20 Tap 25 ONE WINDING~~ } 5th Layer

~~SEC. 9 - 100T No. 10 Tap 50 ONE WINDING~~

ALL LEADS 12"

ALL WINDINGS MATCHED - TAPS

Notes

1- 1.5" - 6. - 12.00 - 1
1- 2. - 2. - 4.00
2- 2.5" - 10.00 - 50.00
2- 3.3" - 5.00 - 3.50
2- 5" - 5.00 - 50.00
2- 6.3" - 3.50 - 38.00
2- 7.5" - 5.00 - 50.00
1- 12.5" - 1. - 12.50
1- 25" - 1. - 25.00

275.00

3 SEC No 1001

SEC No 2 - 2 minutes - 25N - 16

1st LAYER SEC No 3 - 1 minute - 8N - 20

2nd LAYER SEC No 4 - 2 minutes - 20N - 16

3rd LAYER SEC No 7 - 2 minutes - 30N - 18
— one of these on

4th LAYER SEC No 6 - 2 minutes - 15N - 20
SEC No 8 1 minute - 50N - 20

5th LAYER SEC No 5 2 minutes - 10N - 13
SEC No 1 1 minute - 6N - 13

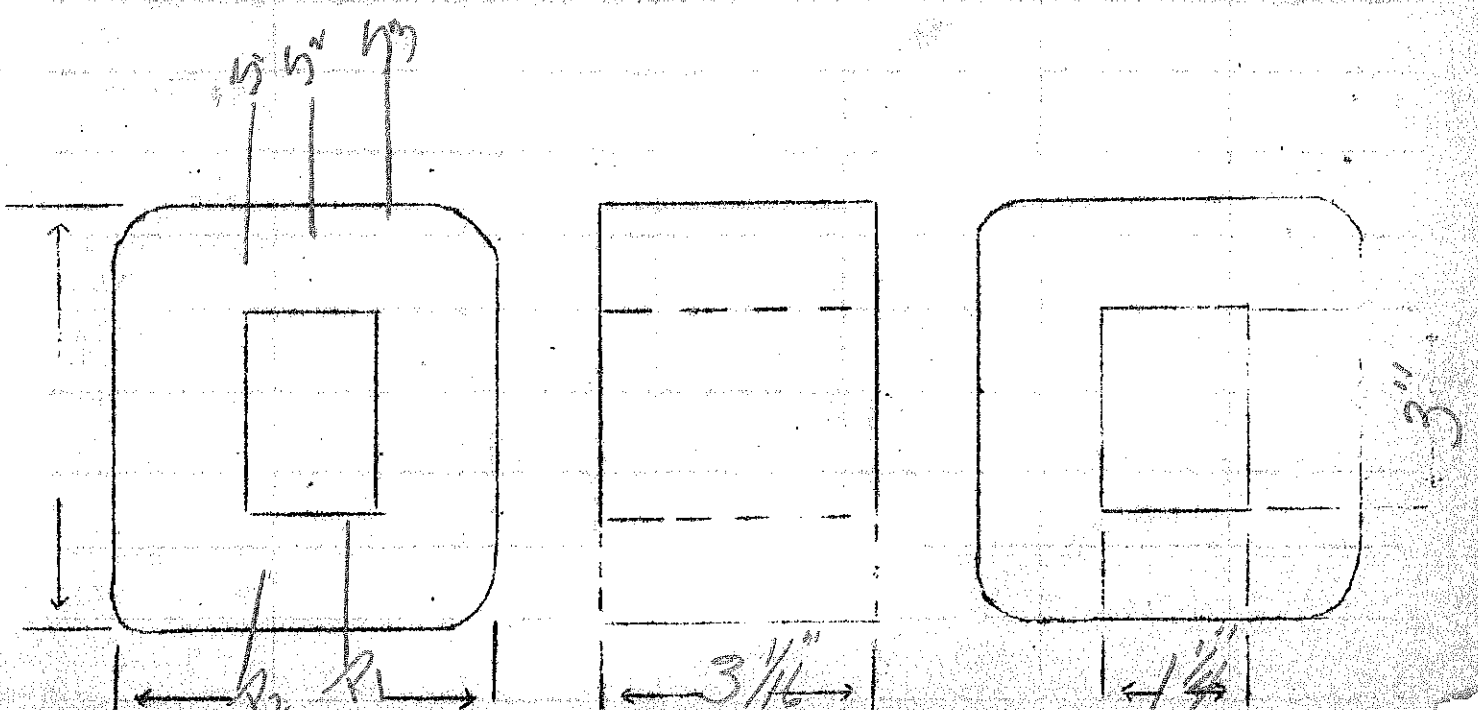
6th LAYER SEC No 9 1 minute 100N - No 20

210-215-220
225-230

Primary Voltage
Secondary 31.5
Filament No. 1
Filament No. 2
Filament No. 3

Specification No. 1002
Type Transformer

| | PRE | | SHIELD | SEC |
|--------------------|--------------------|-----|--------------|----------------|
| TURNS | 320 | 313 | 1 | 33 |
| TAPS | 292-299-306 | | NONE | 16 1/2 |
| LENGTH OF WINDING | 2 7/8 | | 2 7/8 | 2 7/8 |
| SIZE WIRE | 14E | | 005 BRASS | 2-NO 9 DCC 5g. |
| TURNS PER LAYER | 40 | | | 2 x 11 |
| KIND OF TERMINAL | WIRE ONLY | | 311 BY | WIRE ONLY |
| LENGTH OF TERMINAL | 8" | | 3" | 8" |
| TUBE | 7L007 | | | PRE WRAPPER |
| LAYER INSULATION | .0056A | | | 0056A |
| WRAPPER | 1L005VC 1L0056A | | 1L005 YL | 3L005 6A |
| TREATMENT | | | | |
| RESISTANCE | | | | |



Primary _____
 Secondary _____
 Filament No. 1 _____
 Filament No. 2 _____
 Filament No. 3 _____

Voltage

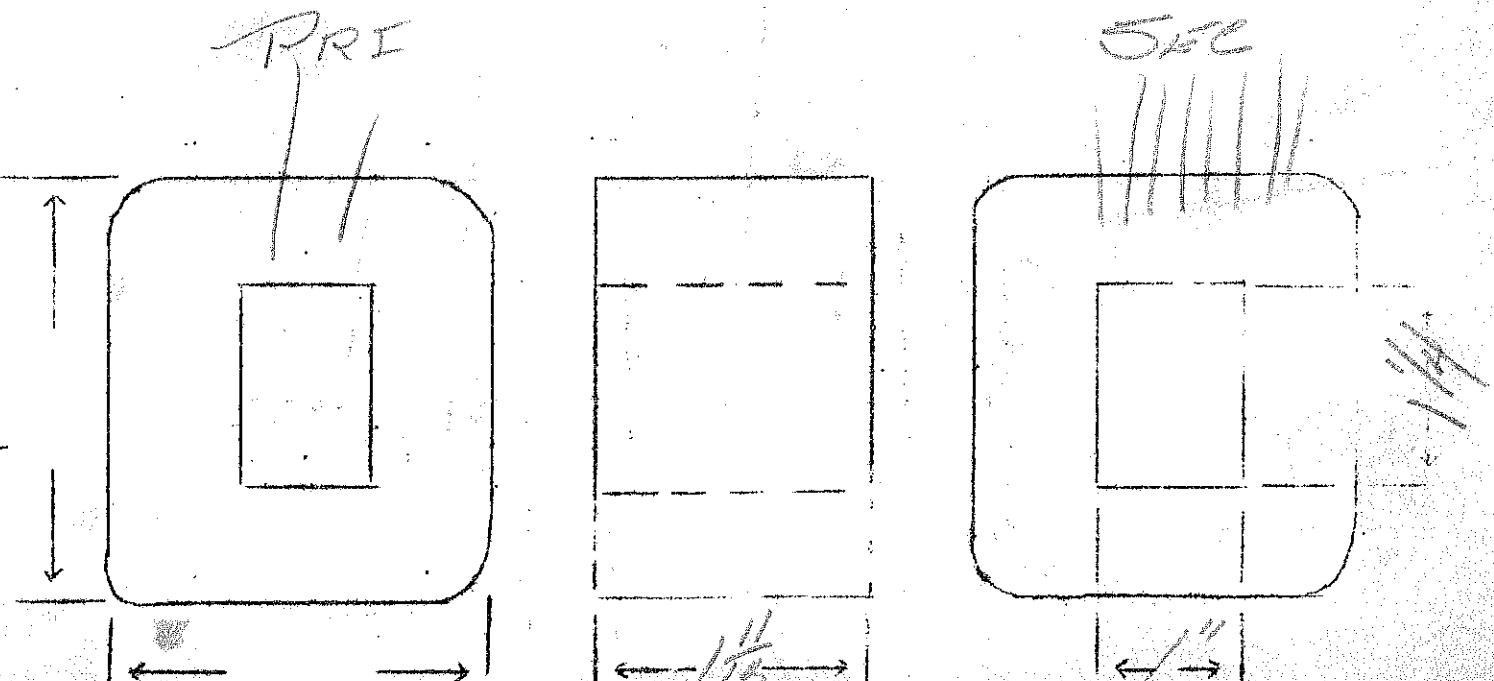
Current

Specification No. 1003

Type Transformer Test

| | | | | | | |
|--------------------|----------------|----------------|-------------|-------------|-------------|-------------|
| | <u>PRI</u> | <u>SEC</u> | | | | |
| TURNS | <u>520</u> | <u>8880</u> | | | | |
| TAPS | <u>485</u> | <u>1110</u> | <u>2220</u> | <u>3330</u> | <u>4440</u> | <u>5550</u> |
| LENGTH OF WINDING | <u>1 1/2</u> | | | <u>6660</u> | <u>7770</u> | |
| SIZE WIRE | <u>22E</u> | <u>37E</u> | | | | |
| TURNS PER LAYER | <u>52</u> | <u>278</u> | | | | |
| KIND OF TERMINAL | <u>N020</u> | <u>N020</u> | | | | |
| LENGTH OF TERMINAL | <u>10"</u> | <u>10"</u> | | | | |
| TUBE | <u>42007</u> | | | | | |
| LAYER INSULATION | <u>308 (6)</u> | <u>308 (6)</u> | | | | |
| WRAPPER | <u>42003</u> | <u>220051C</u> | | | | |
| | <u>YE</u> | <u>120056A</u> | | | | |
| TREATMENT | | | | | | |
| RESISTANCE | | | | | | |

25
504



$E_p = 120V$ auto transformer

Total power - 1 KW

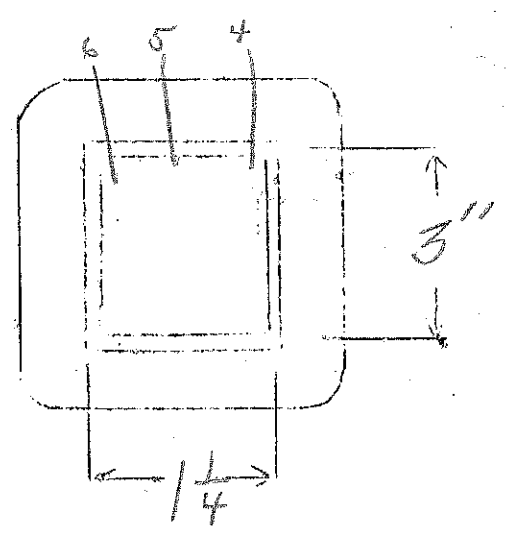
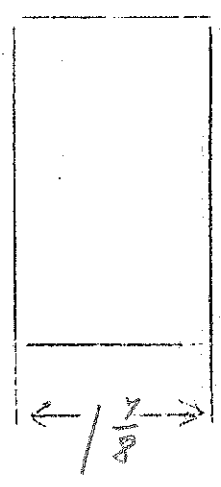
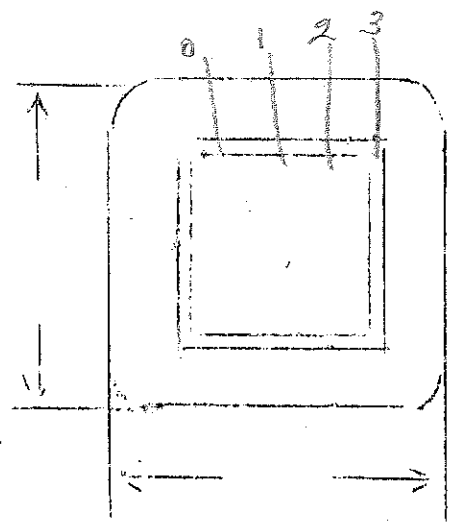
Taps at 130 - 220 - 230 - 240 - 250 - 260

quoted Rangelet # 6,50

$\frac{N}{V} = 1.50$

SPEC. NO. 1005

| | | | | | | | |
|--------------|-------------------------------------|--------------|-----|-----|---------|-----|--|
| Winding | PRI | | | | | | |
| Turns | 390 | 180 | 203 | 343 | 359 | 374 | |
| Taps | | | | | | | |
| Wind. Lgth. | $1\frac{3}{4}$ | | | | | | |
| Wire Size | #15E | | | | | | |
| T.P.L. | 30-13 | | | | | | |
| Kind Term. | WIRE ONLY | | | | | | |
| Term. Lgth. | 4" | | | | | | |
| Layer Insul. | 1L005GA | | | | | | |
| Wrapper | 2L005GA | | | | | | |
| TUBE | 4L007 | IMPREGNATION | | | VARNISH | | |
| CURE | 1 1/4" x 3" (7/8" x 1 1/16" window) | | | | | | |



auto transf.

RADIO SPECIALTIES

line - 110 volts

RECLAIMED IRON

tapped at 90, 95, 100, 105, 110

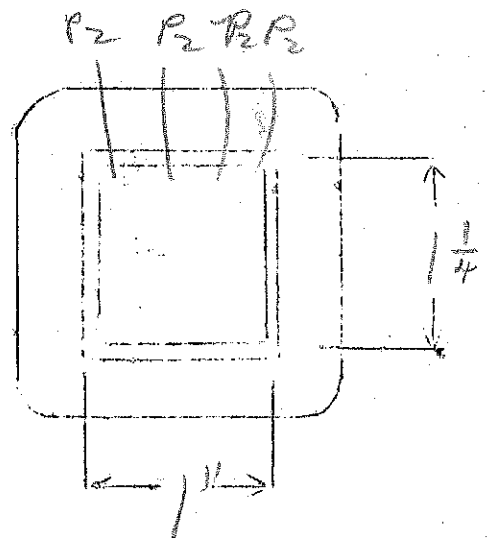
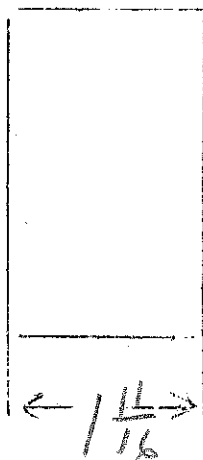
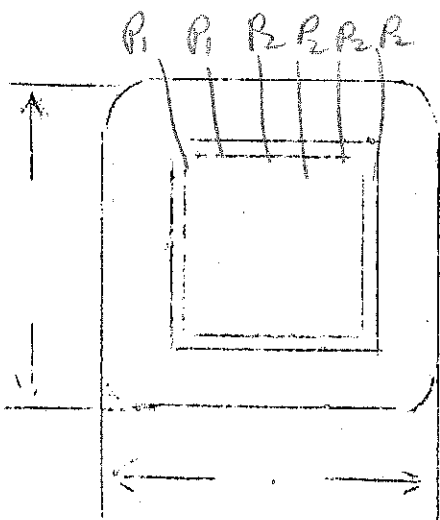
-250 Watts

115, 120, 125, 130

SPEC. NO.

1006

| | | | | | | | |
|--------------|----------------------|------------------|-------------------|---------------------------------|-----|---------|--|
| Winding | PRI ₁ | PRI ₂ | | | | | |
| Turns | 414 | 192 | | | | | |
| Taps | NONE | 24 | 48-72-96 | 120 | 144 | 168 | |
| Wind. Lgth. | 1.5 | 1.5 | | | | | |
| Wire Size | #24E | #18E | | | | | |
| T.P.L. | 46 | 32 | | | | | |
| Kind Term. | #20 PBR | | WIRE ONLY | (solder lead on, do not double) | | | |
| Term. Lgth. | 9" → | one lead only, | see back of sheet | 9" | | | |
| Layer Insul. | 50# | | | | | | |
| Wrapper | 2L0056A | 2L0056A | | | | | |
| TUBE | 4L007 | | | IMPREGNATION | | VARNISH | |
| CURE | 1X 1 1/2 M reclaimed | | | | | | |



at 90V, and 250 Watts

$$i = \frac{250}{90} = 2.8 \text{ ampe}$$

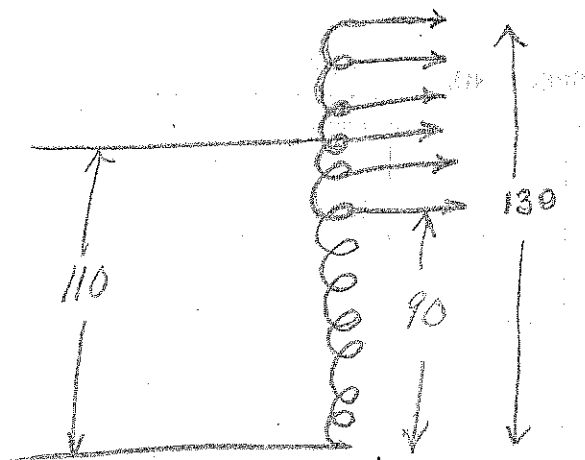
USE #18 wire heavy

transformed power

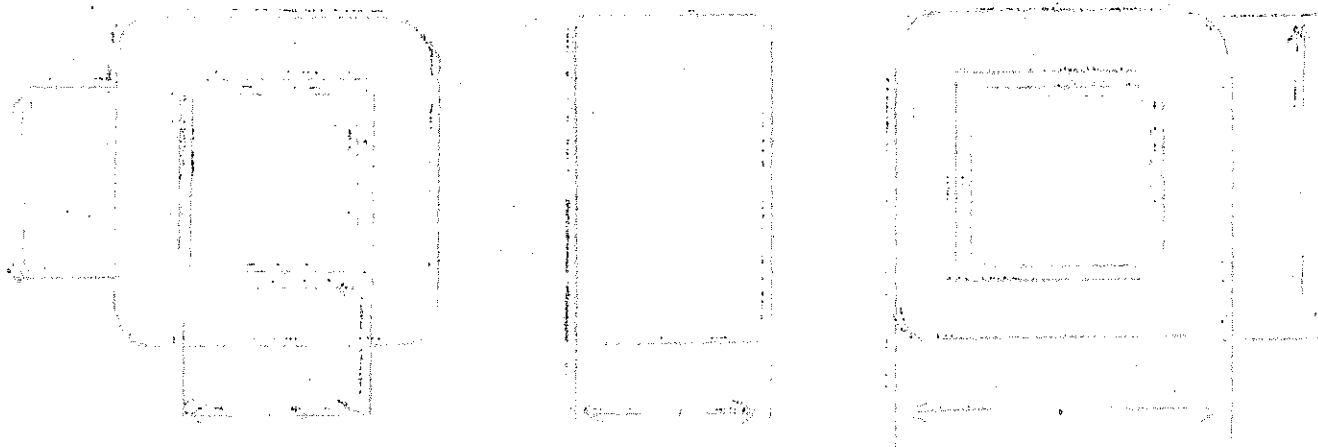
$$W' = W \left(1 - \frac{1}{m}\right)$$

$$= 250 \left(1 - \frac{1}{1.3}\right) = 250 \times .18 = 45 \text{ Watts}$$

USE #24 for rest of winding



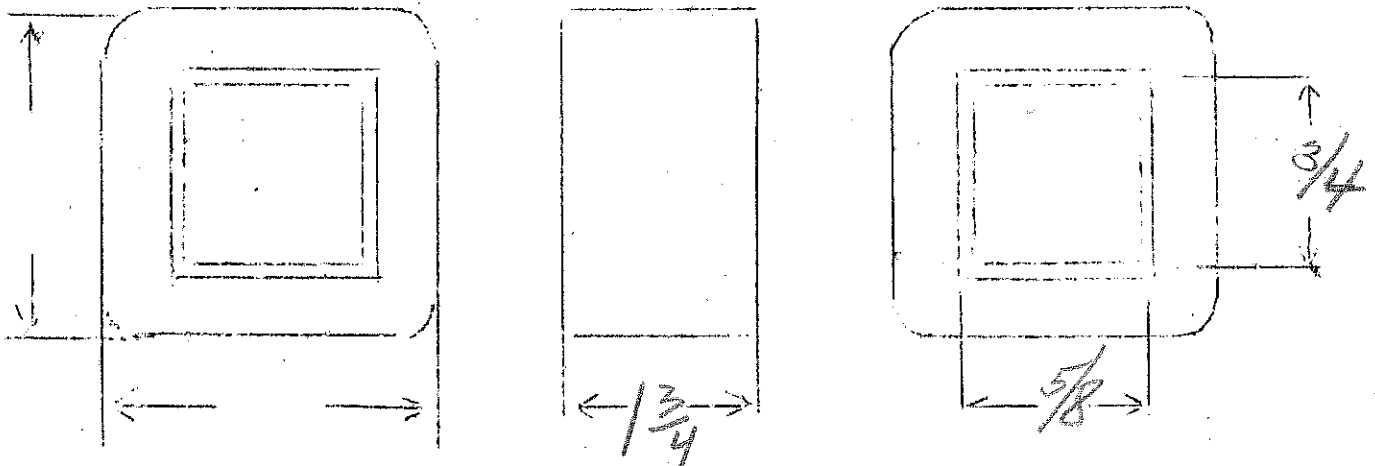
Connect coils inside — so that the two windings are continuous



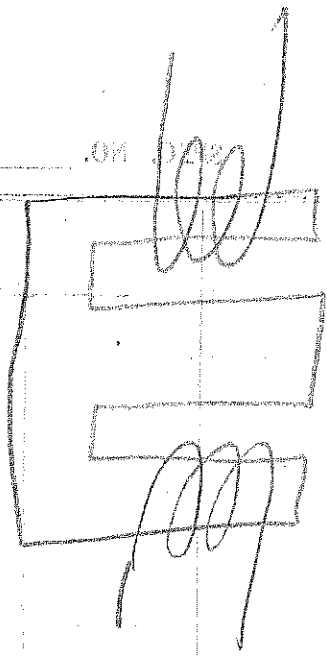
Specials for relay on J.B. Winding Machine

SPEC. NO. 1012

| | | | | | | | |
|--------------|--------------|--------------|--|--|--|--|--|
| Winding | PRI | | | | | | |
| Turns | 340 | | | | | | |
| Taps | — | | | | | | |
| Wind. Lgth. | 1 1/2" | | | | | | |
| Wire Size | #22 | | | | | | |
| T.P.L. | | | | | | | |
| Kind Term. | #30 Plead | | | | | | |
| Term. Lgth. | 9" | | | | | | |
| Layer Insul. | 50# | | | | | | |
| Wrapper | 21056A | | | | | | |
| TUBE | 4L007 | IMPREGNATION | | | | | |
| CURE | (over) | | | | | | |



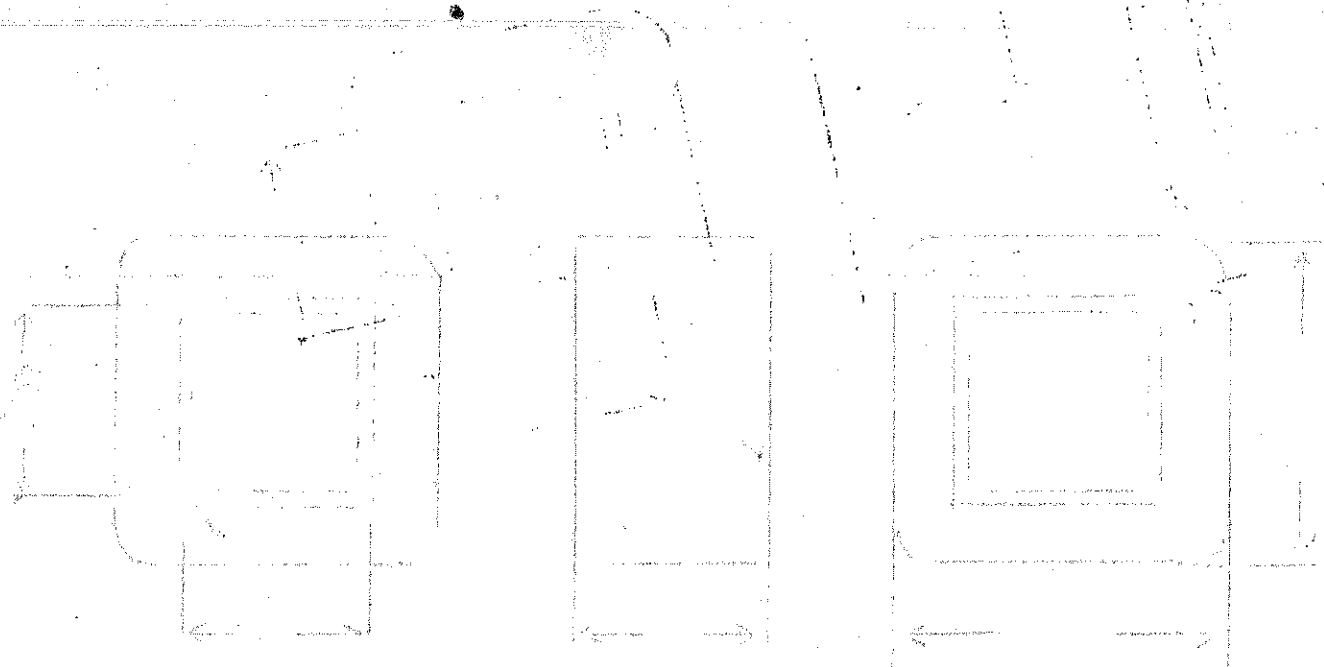
104 1012



1/4" Std. Lamination

Handwritten notes on the right side of the page, including 'Winding', 'Core', 'Lamination', and other faint text.

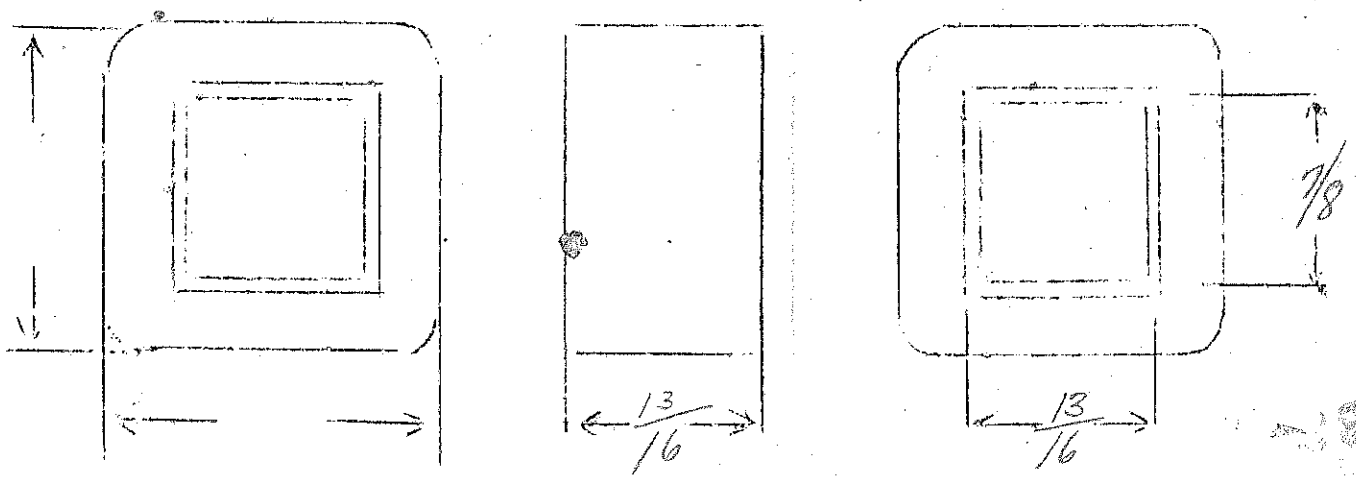
WINDING (mirrored)



Wellcome Meter - 220V.

SPEC. NO. 1020

| | | | | | | | |
|--------------|-------------|--|--------------|--|--|---------|--|
| Winding | | | | | | | |
| Turns | 3200 | | | | | | |
| Taps | — | | | | | | |
| Wind. Lgth. | 1/2" | | | | | | |
| Wire Size | #39 | | | | | | |
| T.P.L. | 115-28 | | | | | | |
| Kind Term. | #20 Per | | | | | | |
| Term. Lgth. | 6" | | | | | | |
| Layer Insul. | 16# | | | | | | |
| Wrapper | 2L0058A | | | | | | |
| TUBE | 7L007 | | IMPREGNATION | | | VARNISH | |
| CURE | 13/16 x 7/8 | | | | | | |



quill cone meter
(220V)

SPEC. NO. 1021

| | | | | | | | |
|--------------|-----------------|--|--|--------------|--|---------|--|
| Winding | | | | | | | |
| Turns | 1900 | | | | | | |
| Taps | NONE | | | | | | |
| Wind. Lgth. | 1.25 | | | | | | |
| Wire Size | #30 | | | | | | |
| T.P.L. | 106-18 | | | | | | |
| Kind Term. | #30 Enamel | | | | | | |
| Term. Lgth. | 6" | | | | | | |
| Layer Insul. | 30# | | | | | | |
| Wrapper | 2L0056A | | | | | | |
| TUBE | 9L007 | | | IMPREGNATION | | VARNISH | |
| CURE | H6 x 7/8 + 1/32 | | | | | | |

