CATALOG P.

# PARTS AND MATERIALS



CLAPP EASTHAM CO.
139 Main Street
CAMBRIDGE, MASS.

## Read Our Terms Before Ordering

All prices are net F.O.B. Cambridge, Mass., and are as low as can be quoted by any one on material of equal quality. Please do not ask us for discounts.

We guarantee every article in this catalog to be exactly as represented, and no further assurance is necessary to those who have dealt with us in the past. To the many new friends we hope to make, we will say that we will cheerfully make good, without question or quibble, any material purchased of us which is not as represented, or which does not prove to be all that you have a right to expect.

In supplying parts for the construction of instruments, we guarantee the parts to leave our factory in perfect condition and to fit together, but cannot guarantee their assembling, or the operation of the instrument, which obviously depends upon the skill and care used by the purchaser.

Where shipment is desired by mail, always include sufficient extra to cover postage. Any excess will be refunded.

No order accepted for less than 50c. Cash must accompany order for amounts under \$5.00. On orders of \$5.00 or over, cash may accompany order, or you may remit 1-3 with order, balance C.O.D. by express, return charges to be paid by the purchaser.

CLAPP EASTHAM CO.
139 Main Street, Cambridge, Mass.

# Parts and Materials

#### SILICON STEEL FOR TRANSFORMER CORES

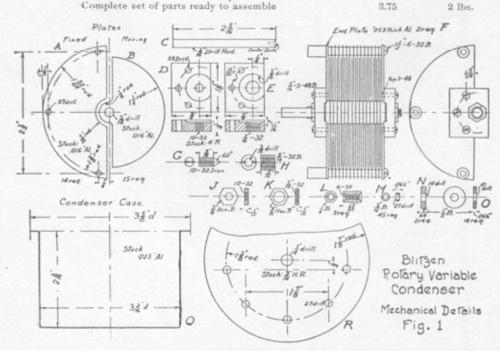
Thickness .017" Averages 60 pieces to 1" thickness Weight ½ lb. per cu. in. Price per lb., 15c. Cut to any size at 50c per 100 pieces extra

#### SECONDARY COILS FOR HIGH FREQUENCY WORK

Cardboard			long,	8"	diameter,	wound a	300 turns	No. 30	wire	\$1.05
- 44	44	8	44	6	44	44	200 "	" 30	) 66	.75
- 44	66	13	66	8	66	without	winding			.30
44	44	8	66	6	64	66	11			.25
				Shin	ning Weigh	t 1 lb eacl	,			

	TUNING COIL CYLINDERS	
Cardboard cylinder 4" long,	5½" diameter, wound 128 turns No. 28 bare wire without winding	\$0.70
Concentric cylinders for recei		
length d	liameter	
Inside cylinder, 4"	41" wound 160 turns No. 28 bare wire	
Outside " 4"	5½" " 128 " " 28 " " per pair,	1.30
Cardboard cylinders as al	bove, without winding, Shipping Weight 1 lb. each	.35

BLITZEN ROTARY VARIABLE CONDENSER	PARTS	Shipping Weight
Set of 15 rotary and 16 stationary aluminum plates Hard rubber handle, shaft, separators and bearings	\$0.70	8 oz. 8 oz.
Hard rubber cover and nickel plated case	1.75	1 lb.



# PARTS AND MATERIALS-Continued

## HIGH TENSION CONDENSERS

In sections of .01 Mfd. capacity 90 watts current capacity, each \$2.50

## EDGEWISE-WOUND COPPER STRIP FOR HELICES

Thickness Width of Copper Strip 1-16" 5-16" 1-16" 1-2" 1-16" 1-2"	Inside diameter of helix $5''$ $7\frac{1}{2}''$ $10\frac{\pi}{4}''$	Price per turn .10 .15 .30
Copper Helix Clips to fit above	101	each .30

# COPPER RIBBON FOR OSCILLATION TRANSFORMERS, ETC.

Thickness	Width	Ft. per lb.	Price per foot
.005 inches	1 inch	about 500 " 125	.00½ .01
.005 "	1 "	" 16	.05
.015 "	11 "	" 10	.071

## LUGS, BINDING POSTS, CONTACTS

	Sta	amped	Copper	Lug	to	carry	8	ampere	es, each	.00
		66	44	66	66	66	10	- 66	66	.00
		.6	- 66	66	66	66	15	- 66	66	.1
		66	66	66	64	66	20	44	- 66	.1:
		a emo	. E. Co.	66		44				.0
E.Co. s	witch o	contact	s, nickel	plate	d,	3-16"	high,	3-16"	dia. "	.0
46	11	44	44	44		9-10.	**	9-10.		
- 44	6.	66	66	44		7-16"	66	7-16"	66 66	.0
	Spri	ing bin	ding pos	ts (il	lus	trated	) ead	ch .02,	per doz	1



## SWITCHES-KNIFE, SNAP, BATTERY





368-1

368-2

P. A.	385 365-1	100 15	Ampere	S.P.D S.P.S	T. F.	Cnife	Switch	for L Switch	ightning , porcela	Protection in base,	, each	.04
66		25	66	66		11 .	44	- 66	- 66	44	66	.44
	365-2			D.P.S	- TP	- 66	66	44	- 66	44	6.	.42
66	365-3	15	44		.1.			66	- 66	64	66	.50
44	365-4	25	66	44		44	66				- 66	
- 64	367-1	5	- 66	Snap	Swit	ch, 2	50 volt	, plain				.28
- 66	367-2	5	44	- 11	44	2	50 vol	t, indica	ating		44	.32
66	367-3	10	66	44	16	2	50 "	plain			- 66	48
	367-4	10	66	- 66	66		50 "	indica	ting		44	.54
	368-1	Sp	ring bine	ding Po	st b	attery	switch	h				.20
66	368-2		66 66		66	6.	4.6					.30
67	369	Ro	tary Sw	itch, co	nsis	ting o	of swite	chblade	, base an	d hard rub	ber kn	ob, .

# PARTS AND MATERIALS-Continued

#### INSULATORS AND INSULATING MATERIALS

Antenna Insulators, Ball type, each	\$0.25	-	P
Antenna Insulators, 4 inch type, each	.80	o4000	0
Antenna Insulators, 10½ inch type, each	.50	©-41111111	WW-0
Hard Rubber Switch Handle, 2" diameter, ½" high, each " 1½" " 1½" " " " Friction Tape, best quality, ½ lb. roll, each Linotape, for high tension work, 1" wide, per yd. 5c, per roll Empire cloth, for high tension work, 3 ft. wide, any length, p Oiled paper, 003 thick, for secondary insulation. Three wide condensers, 4" wide, per yd. 1c; 2½" wide, per yd. ½c; 1½	er sq. yo	tock. For	.40 .25 .23 1.50 .55
Mica—Flexible sheet, readily bent into tubes, etc., highest in Thickness .035", in sheets 36" square, per sheet \$4.00.20 per inch in width.	sulation	resistance.	
Glazed Porcelain Cleats, per pair,			.04

## HARD RUBBER SHEETING. PRICES PER SQ. IN. ON LESS THAN 1/2 SQ. FT.

Thickness	1"	per	sq. ft.	\$1.50 2.90	per		1½c 2½c
**	1	. 66	44	3.90	66		Sc
44	1"	44	- 44	5.50	66	64	4c
66	40	66	66	6.50	66	44	5c
44	2"	41	66	7.75	66	66	6с
11	1"	+4	44	10.00	66	66	71c

## HARD RUBBER ROD. ON LESS THAN 1/2 FT., PRICE IS PER IN.

Diameter	1"	per ft.	\$0.16	per	inch,	80
44	1"	- 66	.26	66	66	5c
44	2"	- 66	.44	16	66	8c
66	1"	66	.85	64	- 66	15c

## FIBRE SHEETING. ON LESS THAN 1/2 SQ. FT., PRICE IS PER SQ. IN.

Thickness "	1"	per "	sq. ft.	\$0.35	per	sq. in.	01
44	#"		- 66	.85		66	.01
16	10	66	66	1.90	66	66	

## FIBRE ROD. ON LESS THAN 1/2 FT., PRICE IS PER IN.

Diameter	1"		\$0.15	per inch,	
	8"	44	.20	**	.03
44	1"	**	.28	44	.05
66	2"		.55	- 46	.09
- 66	1"	66	.80	66	.13

# PARTS AND MATERIALS-Continued

## BRASS STOCK. ON LESS THAN 1/2 FT., PRICE IS PER IN.

Round	rod	Diameter	1,"	per ft.	\$0.04	per inch	\$0.01
66	44	44 -4	3,"	44	.07	44	.01
66	44	46	1"	66	.10	44	.02
	66	46	50	66	.14	66	.02
66	66		120	66	.24	- 66	.04
44	"	- 44	10	66	.28	46	.04
44	11	44	11/1	66	.56	- 66	.09
Square	rod	- 44	i	66	.20	44	.03
Pidimic	11	66	10	. 66	.45	66	.10
Square	tubing,	id " .	3.11	44	.30	66	.05
	onal rod	44	5.0	66	.25	.65	.04
HEARS	- 44	44	8"	66	.30	66	.06
44	- 66	44	1/	46	.34	66	.07
66	- 11	44	8.11	44	.38	. 66	.09

#### BLITZEN MAGNETIC LEAKAGE TRANSFORMERS. CLOSED CORE. 110 VOLTS 60 CYCLES

	Price of Core Cut a to size	Price of Primary Wound and	Price of Secondary Wound and	Price of Mica	Mah	ne of ogany e and ninals	Complete set of parts ready to	Price of Finished Transformer
armon are	Silicon Steel	Taped	Impregnated	Insulation	Case	Terminal	assemble	ready to use
1	\$1.50	\$2.80	\$4.00	\$0.80	\$2.00	\$0.72	\$10.50	\$15.00
i	2.50	3.10	6.00	1.65	3.00	.72	15.50	22.00
1	5.00	4.20	9.00	3.75	4.50	.80	25.00	36.00

# TYPE "E" MAGNETIC LEAKAGE TRANSFORMERS. CLOSED CORE. 110 VOLTS 60 CYCLES

Size in Kilowatt	Price of Core Stampings of Silicon Steel	Price of Primary with four taps for variation of power	Price of Secondary Wound and Impregnated	Price of Mica Insulation	Price of Cast'g for Mtg.	Price Switch Plate and Trml.	Price of Complete set of parts ready to assemble	Price of Finished Transformer ready to use
1	\$3.00	\$5.20	\$4.75	\$0.80	\$2.00	\$3.00	\$17.50	\$30.00
i	5.00	6.20	7.50	1.65	4.00	4.00	26.00	45.00
1	9.00	8.00	11.00	3.75	4.00	5.00	38.00	60.00
2	18.00	16.00	22.00	6.00	6.00	7.00	60.00	120.00
8	24.00	20.00	26.00	6.00	6 00	7.00	75.00	150.00
5	41.00	34.00	46.00	7.00	8.00	7.50	131.00	262.00

#### ANTENNA WIRE FOR WIRELESS TELEGRAPH ANTENNAE

## FLEXIBLE CORD, STANDARD COTTON BRAIDED COVERING

Twin	No.	18.	per foot,	\$0.04	per	250	feet,	\$6.00 11.90
66	44	14,	- 11	.07	- 66	66	66	11.90
66	44	12.	66	.10	66	44	66	17.70

# POLISHED MARBLE BASES FOR MOUNTING INSTRUMENTS (Holland Blue)

#### MAGNET WIRE.

Not less than one pound of a size sold

	Printer of the bridge								
B & S Gauge	Double Cotton Covered feet per lb.	Double Cotton Covered Price per lb.	Enameled Wire Price per lb.	Double Silk Covered Price per lb.					
5	10	\$0.31	Trice per lot	a rice per ib,					
9	25	.88							
11	40	.34							
14	80	.36							
16	127	.37							
19	256	.42							
22	514	.49	\$0.50	\$1.40					
24	817	56	.58	\$1.40					
26	1300	.65	.64						
28	2067	.77	.74	1.60					
30	3287	.90	.97	2.20					
33	6591	1.18	1.20	2.20					
35	10480	1.44	1.50						

#### HOT WIRE AMMETER



To those desiring a less expensive instrument than our "Precision" type, we offer this experimental meter, which will be found reasonably accurate and reliable.

Furnished in nickel plated case, three inches in diameter, with zero scale adjustment and binding posts for front connection.

Can be furnished in two scales, either 0 to 3 amperes, or 0 to 5 amperes, at the same price.

Price, 0-3	amperes	.\$4.50
0-5	amperes	4.50

## "JUST PULL" ATTACHMENT



Why stretch and strain to reach your lights? A small investment in "Just Pull" attachment will bring every one within easy reach.

Attached by any one in one minute.

Price each, with 7 inch chains, 25 cents.

#### MINIATURE BATTERY RHEOSTAT



Suitable for regulating the voltage of battery circuits in connection with miniature lamps, small motors, etc.

The change in resistance is gradual as the lever passes over the coiled resistance wire, from 0 to 30. When resting on "off" the circuit is open. In any other position the circuit is closed.

Binding posts and lever nickel plated. Porcelain

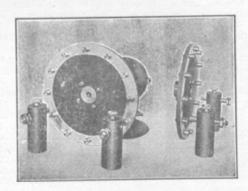
base. Diameter, 3% in.

Experimenters, physicians, surgeons, workers in laboratories, etc., will find this a very useful and efficient miniature rheostat.

List No.

Price.
2110 Miniature Battery Rheostat......\$0.60

#### THE BLITZEN ROTARY SPARK GAP



Front and side views of Blitzen Rotary Spark Gap.

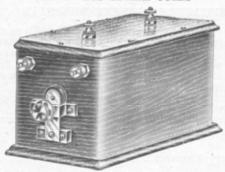
The "Blitzen" wireless spark gap consists of a hard rubber disc 5% inches in diameter, fitted with twelve brass spark points about 1% inches apart on centers and 5-16 inch in diameter. A cast iron hub is fitted with a set screw for fastening to motor shaft, and can be supplied to fit shafts ¼ inch, 5-16 inch or % inch. Be sure to specify shaft diameter with order.

Two hard rubber posts carry the stationary brass electrodes which are adjustable and held in place with a knurled thumb screw.

The Blitzen Rotary spark gap may be adjusted to give a fine, clear note and a considerable increase in efficiency is claimed by many who are using this type of spark gap.

This gap may be used with any transformer up to 1 K. W. rating, but will not operate with spark coils.

#### WIRELESS SPARK COILS



These coils are designed especially for wireless and high frequency work. The rated spark length is guaranteed between needle points, if the proper number of good dry batteries is used to operate the coil. The spark produced is heavy and energetic.

The contact points on the interrupter are heavy platino-iridium, which is the best material known for the purpose. The interrupter is so designed that it will not "stick."

All our coils are furnished complete with primary condenser.

These coils are designed for use in connection with dry, wet or storage batteries, the proper number of which we show below for each coil. We do not guarantee the coils if operated in connection with electrolytic interrupters of any description.

	Our wireless spark coils are all enclosed in polished quartered oak cases.
List	No. Price.
459	Spark Coil, ¼ inch, operates on 5 dry cells \$3.45
460	Spark Coil, ½ inch, operates on 5 dry cells
461	Spark Coil, % inch, operates on 5 dry cells
462	Spark Coil, 1 inch, operates on 6 dry cells 5.40
463	Spark Coil, 1½ inch, operates on 6 dry cells 8.00
464	Spark Coil, 2 inch, operates on 8 dry cells 10.00
495	Spark Coil, 3 inch, operates on 8 dry cells 21.00
496	Spark Coil, 4 inch, operates on 10 dry cells 34.80
	Prices on larger Coils on request

#### SMALL POWER MOTORS

For use on standard lighting circuits.

These motors are of the well known Robbins and Myers make, are intended for continuous service at their rated load, and we can give no better endorsement than to say that we have used them for several years for small power purposes in our factory and for driving our rotary quenched spark gaps supplied with our highest grade wireless telegraph transmitters.

Type P, Single Phase 60 cycle 110 or 220 volt induction motors.

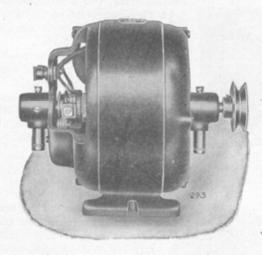


Frame No.	н. Р.	Speed	Net Weight	Shipping Weight	110 V	220 V
14	1-30	1750	15	25	\$12.00	\$13.00°
15	1-20	1750	18	28	14.50	15.50
16	1-10	1750	21	82	19.00	20.00
17	1-8	1750	27	38	22.25	23.25
18	1-6	1750	35	50	25.50	26.50
19	1-4	1750	45	60	30.50	31.00
20	1-2	1750	100	135	46.50	47.50

#### SERIES MOTOR

May be supplied for 110 or 220 volts, 60 cycles A. C. and 110 or 220 volts D. C. at same price. Useful where variable speed is desired.

			Pr	ice	
Frame	H.P.	Speed	110 V	220 V	Shipping Weight
1-L	1-16	2000	\$9.75	\$10.50	10 lbs.
1-L	1-10	3000	9.75	10.50	10 lbs.



FRAME NO. 1/8-B. Compound Wound Motor for use on direct current.

		Price			
Frame	H. P.	Speed	110 V	220 V	Shipping Weight
102	1.20	1750	\$10.50	\$11.90	25 lbs.
103	1-10	1750	11.00	12.40	30 lbs.
104	1.8	1750	13.90	15.30	50 lbs.
105	1.6	1750	18.05	21.65	70 lbs.
106	1-4	1750	22.95	26.70	90 lbs.
107	1.2	1750	38.70	40.90	I25 lbs.

All motors furnished are open type without sliding base; enclosing covers will be furnished with any of the compound motors at an extra cost of \$1.00.

We can furnish motors of any power for all speeds and currents, and will cheerfully furnish information and prices.

#### TRANSFORMERS

#### FOR

#### RINGING BELLS AND OPERATING TOYS



Type R Bell Ringing Transformer, for residence work, is guaranteed to operate three inch iron box bells and buzzers, not more than two at one time, from ordinary alternating current lighting circuit. Is more permanent and more economical than short lived primary batteries, is easily installed by anyone. Height 3 inches; diam. at base 4% inches; net weight 3 lbs.; shipping weight 5 lbs.; output to bell 2 amperes at 6 volts. Price \$2.00.



Type S is similar to Type R, but is designed for heavier work, and gives three different voltages, 6, 12, 18, respectively, so that any one or all three may be used at the same time, if properly connected. Output 7 amperes.

This transformer may be used to operate electric bells, up to and including 4 inch, gravity drop annunciators, furnace regulators, self-winding clocks, burglar alarms, door openers, automatic gas lighters, mine signals, etc. Height 4½ inches; diam. 6 inches square, net weight 9½ lbs.; shipping weight 15 lbs. Price \$4.00.



Type T toy operating transformer is designed to operate miniature railways, motors, low voltage lamps, induction coils, and any low voltage apparatus which does not require over four amperes.

This transformer is practically indestructible and has a 6 foot flexible lead with plug for attaching to lamp socket. All terminals are plainly marked on the cover, and ten different voltages are available: 3, 5, 6, 8, 11, 12, 14, 18, 23 and 26 volts. It operates on 110 volt 60 cycle lighting circuits, and its

capacity is 4 amperes. Net weight 10 lbs.; diam at base 7 inches; shipping weight 15 lbs.

It possesses none of the disadvantages of either dry or wet batteries, is not affected by climatic conditions, supplies a constant current, and operates in any position. Two or more voltages may be used at the same time. Price \$6.00.

