

ESTABLISHED 1897

INCORPORATED 1897

CATALOGUE No. 6

Montana Hardware Co.

WHOLESALE
HARDWARE

MINING SUPPLIES, TOOLS, SPORTING GOODS, HOUSE
FURNISHING GOODS, CROCKERY, GLASSWARE
PAINT, PIPE FITTINGS, EXPLOSIVES
AUTOMOBILE ACCESSORIES

OFFICERS

W. A. CLARK, Jr. Pres.

J. C. PHILLIPS, Vice Pres. and Treas.

J. L. TEMPLEMAN, Sec'y.

E. S. WOODLAND, Manager

BUTTE, MONTANA

LANTERN GLOBES



High Pattern, for Blizzard Lanterns
 Per Dozen
 No. 2—Plain; 6 3/4 in. High, 3 1/2 in. Diameter Bottom, 2 3/8 in. Diameter Top, Weight Per Dozen 13 Lbs. \$3.00
 No. 2-R—Ruby; Otherwise Same as No. 2 6.00
 One Dozen in a Carton.



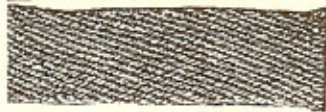
Short Pattern, for D-Lite Lanterns
 Per Dozen
 No. 2-DL—Plain; 4 1/2 in. High, 3 3/8 in. Diameter Bottom, 4 in. Diameter Top, Weight Per Dozen 10 Lbs. \$3.00
 One Dozen in a Carton.



Short Pattern; for Little Wizard Lantern
 Per Dozen
 No. 1-LW—Plain; 3 7/8 in. High, 2 3/4 in. Diameter Bottom, 3 1/8 in. Diameter Top, Weight Per Dozen 7 Lbs. \$2.75
 One Dozen in a Carton.

WICKS

FLAT, LAMP OR LANTERN



For All Ordinary Burners

Nos.	0	1	2	3
For Burners, Nos.	0	1	2	3
Width, Inches	3/8	5/8	1	1 1/2
Length, Inches	8	8	8	8
Weight Gross, Lbs.	1/2	3/4	1 1/4	1 3/4
Per Gross	\$2.00	2.50	3.75	4.50

One Gross in a Package.

RESPIRATORS

DUSTITE

For Dusty Occupations in the Shop, Home or on the Farm

An indispensable device for protecting the Nose, Mouth, Throat or Lungs from irritating or poisonous dust.

The face contact is snug and soft. Can be worn with glasses. Does not interfere with vision or speech.



No. 2—Dry Filter, Two Relief Valves, Weight Each 1/4 Lb. \$2.25
 Extra Filtering Pads Per 100, 2.00
 Extra Relief Valves Per 100, 3.00
 One in a Box, Six in a Display Carton.

CESCO

Filters Dust and Gases

No. 72—Made of Rubber, Sponge Filter Automatic Exhaust Valve, Weight Each 3/8 Lb. \$1.25

Anyone working in dust or poisonous gases cannot afford to be without this Respirator. Fits any face. The Sponge Filter can be readily replaced or cleaned.

One in a Box.



MINERS CARBIDE LAMPS

DEWAR I. T. P., FLOAT FEED

These Lamps positively require no hand regulation. The I. T. P. Float Feed automatically controls the water supply, regulates the flame size and rakes the carbide. No valves to turn—no screws to set—no wires to jiggle. Once the lamp is charged and lighted no further attention is required until a fresh charge of carbide is needed. The flame size is maintained until the last atom of gas has been given up by the slaking carbide. Agitating or jarring the lamp will not affect the size of the flame—even dropping the lamp will not cause pressure increase nor cause the lamp to blow or flame to flare.

The Burners are equipped with Patented Wind Shields which make the lamps immune to the strongest air currents ever met with in mines. These Shields as well protect the flames from overhead drip.

HAND LAMP

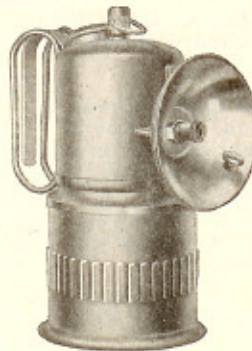
Burns 9 Hours on One Charge

Tinned Drawn Steel Lamp Body, Brass Screw Shell, Water Cap and Valve, 3 in. Diameter Aluminum Alloy Reflector with Self-Lighter.

Each
 No. 203—6 1/2 in. High, Wt. Each 19 Oz. \$3.50

Wind, drip and shot proof. Will run 9 hours on a charge of carbide weighing 7 1/2 ounces.

One in a Carton.



SUPERINTENDENTS

Burns 9 Hours on One Charge

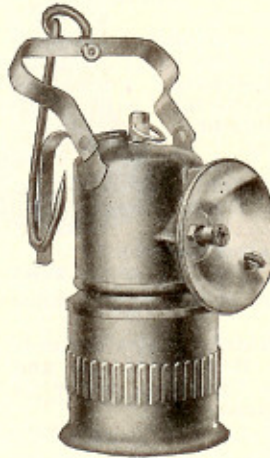
Tinned Drawn Steel Lamp Body, Brass Screw Shell, Water Cap and Valve, 3 in. Diameter Aluminum Alloy Reflector with Self-Lighter.

Each
 No. 205—6 1/2 in. High to Top of Lamp, 9 3/4 in. High to Top of Bail, with Bail and Hooks, Weight Each 21 Oz. \$3.50

Will burn for 9 full hours on a 7 1/2 ounce charge of carbide. Wind, drip and shot proof.

Never necessary to hand rake, regulate or adjust.

One in a Carton.



SUPERINTENDENTS

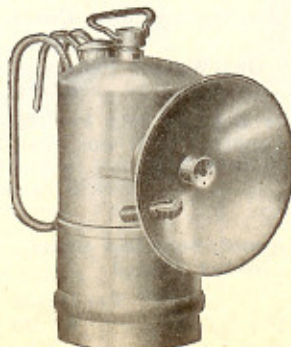
Burns 6 Hours on One Charge

Heavy Seamless Drawn Brass Construction, Nickel Plated and Polished. 3 in. Diameter Aluminum Alloy Reflector with Self-Lighter.

Each
 No. 160—5 1/2 in. High, Wt. Each 11 Oz. \$3.25

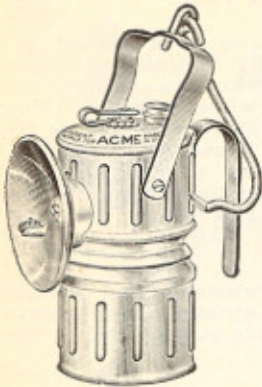
Light in weight but strong and durable. Gives a bright, white light.

One in a Carton.



MINERS CARBIDE LAMPS

ACME STEEL



Half Shift Size, Burns 5 to 6 Hours on One Charge

Heavy Steel Construction, Heavily Tinned, 3 in. Nickel Plated Reflector with Self-lighter.

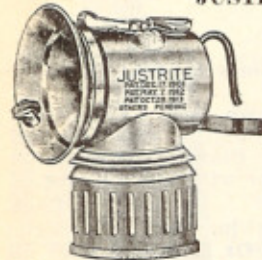
No. 50—18 Candle Power, 6 in. High, with Bail and Hook, Wt. Each 20 Oz. \$3.25

Has the dependable "Polygon" water valve which insures a steady, free water flow, requires no agitation, will not clog.

The tip has a Flame Protector which makes it Wind and Drip proof.

Six in a Box.

JUSTRITE MINERS CAP



Burns 2½ Hours on One Charge

Polished Brass Construction, 2¼ in. Concaved Reflector with Self-lighter.

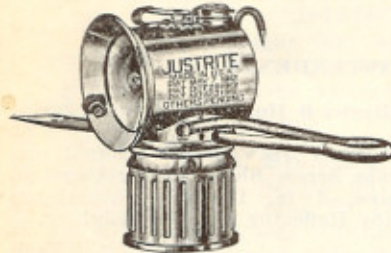
No. 407—16.7 Candle Power, 3¾ in. High, with Round Hook, Weight Each 5 Oz. \$1.00

Has the Wire Valve Feed which enables the user to burn the flame any size desired. It will not clog

and does not require agitation in order to obtain water as needed. Easy to operate and keep clean.

Twelve in a Box.

JUSTRITE METAL MINERS



Half Shift Size, Burns 4 Hours on One Charge

Polished Brass Construction, 2½ in. Concaved Permanent Reflector with Self-lighter.

Each

No. 103—18 Candle Power, 4½ in. High, with Adjustable Candlestick and Steel Hook, Weight Each 9 Oz. \$1.75

No. 108—Same as No. 103, but Furnished with No. 77 10 Oz. Air Tight Pocket Carbide Can. 1.85

The deep concaved reflector is part of the lamp, cannot get lost or be broken off.

Has the Wire Valve Water Feed which enables the user to burn the flame any size desired. It will not clog and does not require agitation in order to obtain water as needed. Easy to operate and keep clean.

Six in a Box.

MINERS LAMP ACCESSORIES

For Justrite Miners Carbide Lamps



POCKET CARBIDE CANS

Tinned Light Steel, Air Tight Sliding Cover

No. 77—Capacity 10 Oz., Weight Per Dozen

Dozen 2½ Lbs. \$1.80

Concaved to fit the Boot or Hip Pocket. Holds a full day's supply. Will not rust. One Dozen in a Box.

MATCH BOXES



Water-proof, Seamless Brass, Nickel Plated

Per Dozen

No. 75—Round, 2¾ x 1½ in., Weight Per Dozen ½ Lb. \$1.20 One Dozen in a Box.

MINERS LAMP ACCESSORIES

For Justrite Miners Carbide Lamps

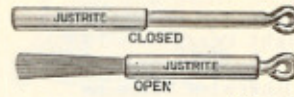
TIP CLEANERS

With Sliding Cover

Per Dozen

No. 37 — 50 Rust-proof Hard Steel Wires, Wt. Per Dozen ¾ Lb. \$1.20

One Dozen in a Box.



Without Sliding Cover

Per Dozen

No. 22—Hard Steel Wires, Weight Per Dozen ¼ Lb. \$0.60 One Dozen in a Box.

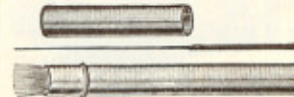
BURNER TIP REAMERS

One Dozen in Metal Tube

Per Tube

No. 145 — Fine Steel Needles, Wt. Per Dozen 1 Oz. \$0.60

One Dozen in a Metal Tube, One Dozen Tubes in a Box.



CANDLESTICKS

Hard Steel

Per Dozen

No. 35—¼ in. Steel, 9¾ in. Long, Weight Per Dozen 2 Lbs. \$3.00

One Dozen in a Box.



REPAIR PART OUTFITS

For Justrite Miners Carbide Lamps Per Case

No. 1 Outfit—Consists of Items as Enumerated Below, Put Up in a Counter Display Case, Wt. Outfit 1¾ Lbs. \$6.00

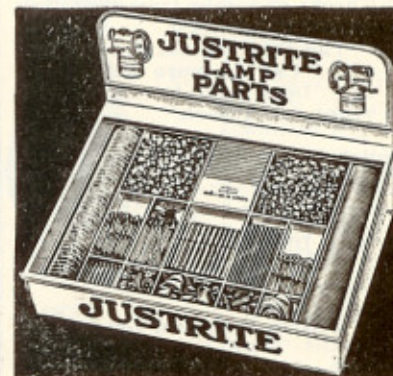
Contents of No. 1 Outfit

- 5 doz. No. 60 Gaskets.
- 5 doz. No. 62 Felts.
- ½ doz. No. 64 Felt Holders.
- 1 doz. No. 66 Lava Tips.
- 3 doz. No. 28 Metal Tips.
- 3 doz. No. 172 Flints.
- 1 doz. No. 173 Springs.
- 1 doz. No. 174 Screw Caps.
- 1 doz. No. 182 Hex. Nuts.
- ½ doz. No. 177 Lighters, complete.
- 1 doz. No. 37 Tip Cleaners.



Per Outfit

No. 3 Outfit—Consists of Items as Enumerated Below, put up in a Metal Show Case with Glass Cover and Drawer Opening from Back, White Enamel Finish, Weight Per Outfit 18 Lbs. \$30.00

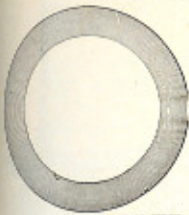


Contents of No. 3 Outfit

- 100 No. 60 Gaskets.
- 100 No. 62 Felts.
- 12 No. 64 Felt Holders.
- 144 No. 66 Tips.
- 144 No. 28 Tips, Jewel Burners.
- 36 No. 22 Tip Cleaners.
- 72 No. 37 Tip Cleaners.
- 12 No. 78 Valve Stems.
- 72 No. 145 Reamers.
- 24 No. 177 Lighters.
- 48 No. 172 Flints.
- 24 No. 173 Springs.
- 24 No. 174 Screw Caps.
- 12 No. 176 Forks and Nuts.
- 6 No. 181 Water Caps.
- 24 No. 182 Hex. Nuts.

REPAIR PARTS

FOR MINERS' CARBIDE LAMPS
RUBBER GASKETS



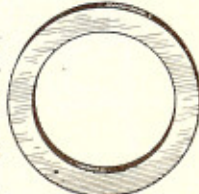
Flat Rubber

Per Dozen
No. 60—For "Justrite" Miners' Carbide Lamps, Wt. Per Dozen 2 Oz. \$0.40
One Dozen in Box.

RUBBER GASKETS

Flat Red Rubber

Per Dozen
No. 12—For "Dewar" Miners' Carbide Lamps, Wt. Per Dozen 2 Oz. \$1.20
One Dozen in Box.



FELT PACKING

For Filtering Gas



Per Dozen
No. 62—For "Justrite" Miners' Carbide Lamps, Weight Per Dozen 1 Oz. \$0.40
One Dozen in a Box.

FELT HOLDERS



For Holding Felt Packing

Per Dozen
No. 64—For "Justrite" Miners' Carbide Lamps, Weight Per Dozen 2 Oz. \$0.60
One Dozen in a Box.

FLINTS

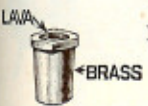


For Use in Self-Lighters

Per Dozen
No. 172—For "Justrite" Miners' Carbide Lamps, Weight Per Dozen 1/2 Oz. \$0.60
One Dozen in a Box.

BURNER TIPS

Brass Shell, Lava Inserts



Per Dozen
No. 28—Jewel, For "Justrite" Miners' Carbide Lamps, Wt. Dozen 1 Oz. \$0.60
One Dozen in a Box.

Brass Shell, Lava Insert

Per Dozen
Sun-Ray—For "Dewar" Miners' Carbide Lamps, Wt. Per Dozen 1 Oz. \$0.60
One Dozen in a Box.



REFLECTORS

Nickel Plated



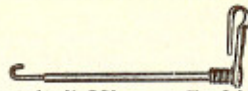
Per Dozen
No. 301—3 in. Diameter, with Self-Lighter, for "Justrite" Miners' Carbide Lamps, Wt. Per Dozen 1 Lb. \$3.60

Aluminum Alloy

Per Dozen
No. 6—3 in. Diameter, with Self-Lighter, for "Dewar" Miners' Carbide Lamps, Weight Per Dozen 3/4 Lb. \$7.20
One Dozen in a Box.

REPAIR PARTS

FOR MINERS' CARBIDE LAMPS
VALVE STEMS



For "Justrite" Miners' Carbide Lamps

Per Dozen
No. 78—Complete, Weight Per Dozen About 1/4 Lb. \$3.00
One Dozen in a Box.

VALVE STEMS

For "Dewar" Float Feed Miners' Carbide Lamps

Per Dozen
No. I. T. P.—Complete, Weight Per Dozen About 1/4 Lb. \$3.00
One Dozen in a Box.

LAMP BOTTOMS

For "Dewar" Float Feed Miners' Carbide Lamps

Per Dozen
No. L. B.—Tinned Steel, with Cover, Weight Per Dozen 2 Lbs. \$9.00
One Dozen in a Box.

LAMP CLIPS

JUSTRITE

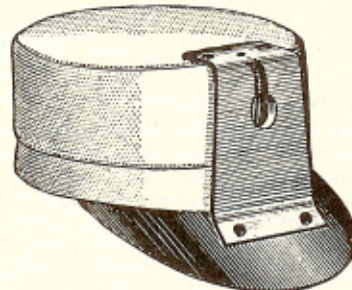


Easily attached to Miners' Cap or Hat. Holds Cap Lamps in rigid position.

Per Dozen
No. 65—Steel, Black Enameled, Weight Per Dozen 1/4 Lb. \$1.80
One Dozen in a Box.

MINERS CAPS

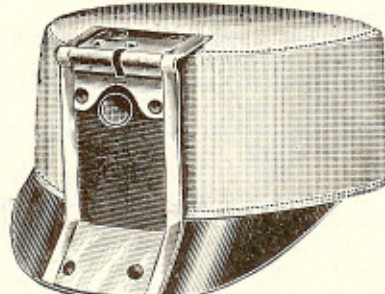
PENN



With Lamp Holder Per Dozen

No. 761X—Waterproof Shrunk Duck, Flannel Lined, Sole Leather Visor and Lamp Holder, Size 6 7/8 to 7 1/2, Wt. Per Dozen 6 Lbs. \$7.20
One Dozen in a Carton.

Note—Always state size wanted.



With Lamp Holder Per Dozen

No. 97—Special Shrunk Brown Duck, Flannel Lined, Vulcanized Fibre Lined XX Tin Lamp Holder, Sizes 6 7/8 to 7 1/2, Weight Per Dozen 5 1/2 Lbs. \$4.80
One Dozen in a Carton.

Note—Always state size wanted.

UNION CARBIDE



Miners Lamp Union Carbide is specially selected and perfectly adapted for use in Miners Lamps.

Has a high gas yield, is uniform in size and quality and is free from dust.

In blue and gray drums and cans.

For Miners' Lamps

Per Drum
No. 100—In 100 Lb. Drums . . . \$8.00
No. 25—In 25 Lb. Drums . . . 3.25
Per Case

No. 10—In 10 Lb. Cans, 6 Cans in a Case \$9.00

No. 2—In 2 Lb. Cans, 24 Cans in a Case 9.60

For Generators Per Drum

Quarter—1/12x1/4 in., for Carbide Generator Using Finely Crushed Carbide, in 100 Lb. Drums \$8.00

Nut—3/8x1 1/4 in., for Carbide Feed Generators, in 100 Lb. Drums 8.00

CALCIUM CHLORIDE

In Drums Per Drum

No. 100-CC—In 100 Lb. Drums . \$20.00
For Dust Laying, Refrigeration, Fire Protection, Concrete Pavement Curing and Concrete Acceleration.

MINING CANDLES

GRANTE

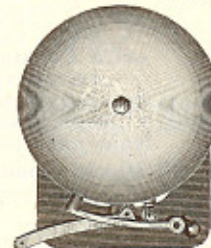


Per Case
No. 508—7 1/2 in. Long, 1 1/8 in. Diameter, 8 to a Pound, 320 in a Case, in Layers, Weight Per Case 40 Lbs. \$9.00

A high grade candle for use in warm mines, medium wick. Burns freely and gives a strong light.

TRIP SIGNAL MINE GONGS

SINGLE STROKE



Suitable for use in mines or any place for which a Signal Gong is needed.

Neat in appearance and not affected by the weather. Practically indestructible.

Nickel Plated Steel Gong Shell; Black Japanned Base, Bronze Lever and Hammer

Nos.	60-6	60-8
Diameter, Inches.	6	8
Weight Each, Lbs.	4	6
Each	\$4.50	5.00

Nos.	60-10	60-12
Diameter, Inches.	10	12
Weight Each, Lbs.	9	13
Each	\$8.00	12.00

One in a Package.

DYNAMITE
GIANT EXTRA



Low Freezing

Produces more of a heaving and rending than a shattering effect.

Well adapted to quarry and construction work, highway and railroad blasting and to mining operations. It will give good results wherever conditions are not very wet.

One of the safest explosives to handle and use. It requires a severe shock to detonate it, and consequently the risk from accidental explosion is slight.

7/8 x 8 in., 1 1/8 x 8 in. and 1 1/4 x 8 in. Cartridges
Per 100 Pounds

	Ton Lots	Less Ton
15 Per Cent Strength.....	\$.....
25 Per Cent Strength.....
30 Per Cent Strength.....
35 Per Cent Strength.....
40 Per Cent Strength.....
60 Per Cent Strength.....

Minimum Number of Cartridges in a Case, 7/8 x 8 in., 208; 1 1/8 x 8 in., 128; 1 1/4 x 8 in., 105. 10, 25 and 50 Pounds in a Case.

GIANT GELATIN



Very Low Freezing

Very dense and plastic. Will give same results as a large quantity of a more bulky explosive. Will remain under water several hours without losing its strength.

Suitable for tunnel operations, shaft sinking, submarine excavation, and blasting in mines and quarries where absence of fumes is important.

7/8 x 8 in., 1 1/8 x 8 in. and 1 1/4 x 8 in. Cartridges
Per 100 Pounds

	Ton Lots	Less Ton
25 Per Cent Strength.....	\$.....
30 Per Cent Strength.....
35 Per Cent Strength.....
40 Per Cent Strength.....
60 Per Cent Strength.....

Minimum Number of Cartridges in a Case, 7/8 x 8 in., 175; 1 1/8 x 8 in., 109; 1 1/4 x 8 in., 88. 10, 25 and Fifty Pounds in a Case.

OIL WELL EXPLOSIVES



Low Freezing

Used for the same purpose as nitroglycerine. It is far safer than liquid nitroglycerine and is accepted by railroads for transportation. Case equals 10 quarts of nitroglycerine.

2x8 in. and 4x5.4 in. Cartridges

	Per Quart
No. 1—100 Per Cent Strength, Weight Per Case 28 1/2 Lbs.	\$.....
10 Quarts in a Case.	
No. 2—80 Per Cent Strength.....

No. 2 is Packed One 25 Pound or One 50 Pound Block to the Case. It is Also Packed in 10 Quart Cases Weighing 33.7 Lbs. and in 15 Quart Cases Weighing 50.55 Lbs.

Note—In Ordering All the Above, Specify Sizes of Cartridges Wanted.

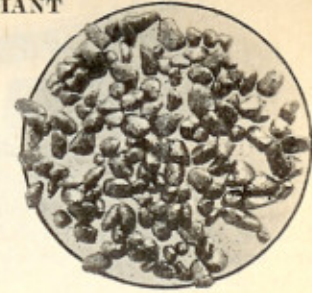
Note—Powder or Dynamite Cannot be Shipped by Express or Mail, but Must Go by Freight.

Note—Blasting Caps Cannot be Sent by Mail or Express (nor with Dynamite), but Must Go by Freight.

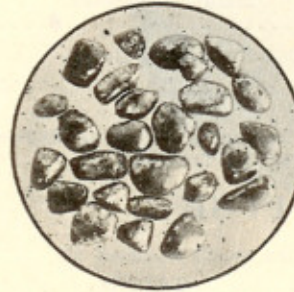
Prices on Application.

BLASTING POWDER

GIANT



FFF



FF



F

“B” Grade, Black

Made of charcoal, sulphur and sodium nitrate, each grain glazed over with graphite.

Size Grains	F	FF	FFF
Per Keg	\$....

All granulations have the same strength, the difference in size determining the difference in action. The finer the grain the speedier the action. The finer grains therefore shatter more than the coarser ones.

Twenty-five Pounds in a Steel Keg.

ELECTRIC BLASTING CAPS



INSTANTANEOUS
Tin Covered, Copper Wires

While wires have a waterproof covering, in deep water or in any wet material where they are under pressure.

the electric current may leak. The use of a surplus of current will overcome this.

No. 6—Length of Shell 1 1/8 in., .273 Outside Diameter
Lgth. Wire, Ft... 4 6 8 10 12 14 16 18 20
Per 100

No. 8—Length of Shell 2 in., .273 in. Outside Diameter
Lgth. Wire, Ft... 4 6 8 10 12 14 16 18 20
Per 100

Fifty in a Carton.

DELAY

Will fire as many as 11 shots in a round, all fired by one application of the electric current.

No. 6—Length of Shell 1 1/8 in., .273 in. Outside Diameter.

Length Wire, Feet.... 4 6 8 10 12 14
Per 100

No. 8—Length of Shell 2 in., .273 in. Outside Diameter
Length Wire, Feet.... 4 6 8 10 12 14
Per 100

Fifty in a Carton.



BLASTING CAPS



Drawn Copper Tube

Loaded with a small charge of a very sensitive and violent explosive. Has one end open into which the fuse is to be inserted.

- No. 6—1½ in. Long, .234 in. Outside Diameter, Weight of Charge 1 Gram.....\$..... Per 100
 - No. 8—2¼ in. Long, .234 in. Outside Diameter, Weight of Charge 3 Grams.....\$.....
- Twenty-five in a Tin Box.

Note—Blasting Caps cannot be sent by Mail or Express (nor with Dynamite) but must go by freight.

SAFETY FUSE



TAPED

Taped Fuses have long been standard types in view of their added strength and excellent resistance to rough treatment.

Per 100 Feet
Triple Tape—For Use in Very Wet Work where Exposed to Rough Treatment\$.....

COUNTERED



Owing to the fact that Taped Fuses are more susceptible to widely varying weather conditions, the Hard-Finished Cotton Countered Types are coming more into use.

- Per 100 Feet
Black Monarch—For Use in Very Wet Work, Double Countered\$.....
- Bear**—For Use in Very Wet Work, a Strong Taped, Single Countered Fuse.....\$.....
- Sylvanite**—For Use in Damp Work, Suitable for Mining and Agricultural Blasting Purposes....\$.....

In extremely wet work Black Monarch, Bear or Triple should be used.

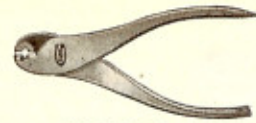
If work is done in extremely cold places Black Monarch, Bear or Sylvanite should be used in preference to Triple Tape.

All brands have a standard burning speed of 126 seconds per yard, with an allowable variation of 10% either way.

Two 50 Foot Coils in a Roll, 1000 and 3000 Feet in a Fibre Case.

CAP CRIMPERS

HAND



Nickel Plated

Giant—For Crimping Blasting Caps on Fuse.....\$..... Each

Other methods of fastening cap to fuse are dangerous and often cause misfires.

One of the handles of the cap crimper is pointed so that it may be used for punching the hole in the cartridge for priming.

CAP CRIMPERS AND FUSE CUTTERS

BENCH



California—Crimps Caps and Cuts Fuse..\$..... Each

Makes a joint as nearly waterproof as is mechanically possible. A gauge pin not only locates the position of the crimp but also serves to hold the cap in place so that the fuse may be kept in immediate contact with the fulminating charge in the cap.

In addition to the hand lever, an auxiliary lever is provided so that a foot pedal, regulated to the type and height of bench in use at the mine, can be attached, making the tool readily adaptable for either hand or foot operation as desired.

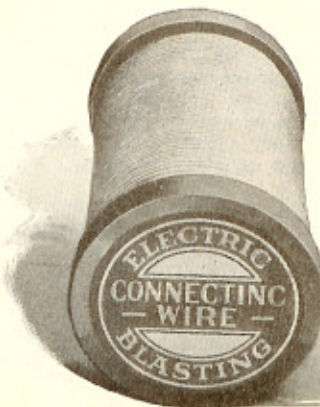
LEADING WIRE



Used to connect the blasting machine with the electric blasting caps, igniters, squibs, etc.

- Per 100 Feet
Single—14 Gauge, Insulated Copper Wire, Weight Per Coil 4.12 Lbs.....\$.....
 - Duplex**—14 Gauge Insulated, Copper Wire, Two Wires Bound Together, Having an Additional Insulated Covering, Weight Per Coil 8¼ Lbs.....\$.....
- 200 Feet in a Coil.

CONNECTING WIRE



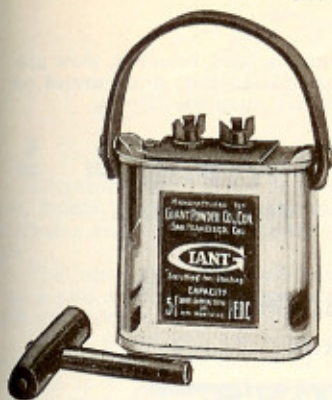
Used to connect the shots together in a single circuit when the wires of the caps are not long enough.

- No. 20 Gauge Insulated Copper Wire**
- Size Spool, Lbs. 1
- Feet on Spool.. 230
- Per Spool.....\$.....
- Size Spool, Lbs. 2
- Feet on Spool.. 460
- Per Spool.....\$.....
- No. 21 Gauge, Insulated Copper Wire**
- Size Spool, Lbs. 1
- Feet on Spool..... 290
- Per Spool\$.....
- Size Spool, Lbs. 2
- Feet on Spool..... 580
- Per Spool\$.....

Prices on Application

BLASTING MACHINES

GIANT



No. 1.

Operated by a key which is a separate part of the machine. Key may be kept in possession of the shot firer, thus preventing the operation of the machine by any other person.

To operate, the machine is held in the left hand, the key is inserted in the socket and a quick twist of the handle to the right fires the blast. The more quickly the greater the power developed.

Care should be taken not to short circuit the blasters at the binding posts, as this

will weaken the permanent magnet and reduce the capacity of the machine.

Capacity—Will fire five 30-foot copper wire electric blasting caps or five 6-foot iron wire electric blasting caps connected in single series.

No. 1—4 3/4 in. Long, 2 in. Wide, 4 3/4 in. High, Net Weight Each 3 1/4 Lbs., Shipping Weight Each 4 Lbs.\$.....

Capacity—Will fire ten 30-foot copper wire electric blasting caps or ten 6-foot iron wire electric blasting caps connected in single series.

No. 2—4 3/4 in. Long, 2 in. Wide, 6 3/4 in. High, Net Weight Each 5 1/2 Lbs., Shipping Weight Each 6 1/2 Lbs.\$.....



No. 3—7 in. Wide, 8 in. Long, 14 3/4 in. High, Net Weight Each 22 Lbs., Shipping Weight Each 31 Lbs.\$.....

An improved machine of high capacity, great durability and smooth operation.

Resistance to the thrust of the rack bar does not appreciably increase during operation, resulting in a machine with a very smooth action.

Standard size for mine, quarry and ditch blasting.

Capacity—Will fire fifty 30-foot copper wire electric blasting caps or fifty 6-foot iron wire electric blasting caps connected in a single series.

RHEOSTATS

GIANT DUPLEX



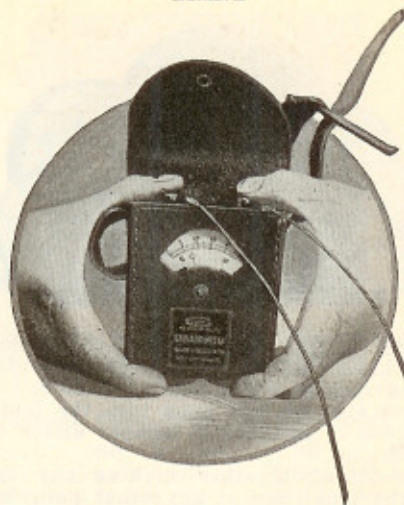
For Testing Blasting Machines and Galvanometers

Each
Giant Duplex — 3/4 x 1 3/4 x 7 in., Weight Each 7 Oz.\$.....

Attached to the rheostat is a 6 in. pliable shunt wire. The wires of the electric blasting cap are always connected, one to post A, the other to post B. One leading wire is also always connected to post B. The other leading wire and the shunt wire are connected to those posts the sum of the numbers between which represent the capacity of the blasting machine in 30 foot copper or 6 foot iron electric blasting caps connected in single series.

GALVANOMETERS

GIANT



In Leather Case, with Leather Shoulder Strap

Giant Galvanometers—1 3/4 x 3 1/2 x 4 1/2 in., Weight Each 1 1/2 Lbs.\$.....

For testing electric blasting caps, single series circuits, etc., to make certain there are no poor connections, leaks or short circuits that will cause misfires. Consists of a chloride of silver dry cell battery and resistance coil within a metal and hard rubber case.

TAMPING BAGS

GIANT



Empty.



Filled.

Made especially for holding tamping material for explosive charges in horizontal holes or in "uppers," where the ordinary method of tamping is not practical.

They are inexpensive and a great time saver. Sometimes used to make powder cartridges.

Each bag is about 2 inches longer than the listed length. This is to provide a margin for folding over the end when it is used.

Nos.	A	B	C	D	E
Inches	1x8	1 1/4 x 8	1 3/4 x 10	1 3/4 x 12	1 1/2 x 8
Weight Bale, Lbs.	21	24	29	30	28
Per 1000	\$.....
Nos.	F	G	H	J	
Inches	1 1/2 x 10	1 3/2 x 12	1 1/2 x 16	2x18	
Weight Bale, Lbs.	33	39	45	68	
Per 1000	\$.....	

500 in a Bale, 10 Bales in a Bundle.

Prices on Application.