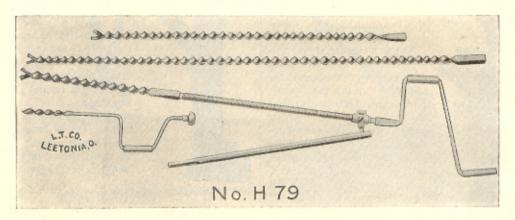
MINERS' TOOLS Socket Handy Billy Drills

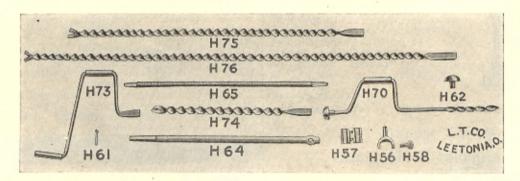


This drill is light and durable and is designed for drilling medium soft coal in high veins. The grip bar is made of high grade steel; the small brace auger has pipe hand-hold and a detachable 7 inch crucible steel bit; the boxing and yoke are made of the best malleable iron and will not break; the augers have square welded sockets. Reversible thread bars are made in 8, 10 or 12 United States Standard threads, also 6, 8 or 10 square threads.

Note: In ordering be sure to give number of threads and whether square or United States Standard is wanted, also diameter of augers. Unless otherwise ordered, we will ship bars having 8 square threads and 1½ inch oval shaped augers.

No. H79 Welded Socket Handy Billy Drills-Complete with 2, 4 and 6 foot augers Each \$20,00

Repairs For Socket Handy Billy Drills



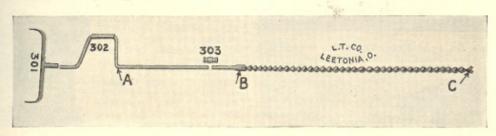
No. H-55 Malleable Yoke, Box and Thumb- screw Complete (give style and number	No. H-73 Double Crank with Welded Socket	.40
of threads) Each \$2.40		
No. H-56 Malleable Yokes Each .60	under,	.44
No. H-56X Malleable Yokes, with Thumb-	No. H-75 4 Foot Augers, 11/2 inch and	
screw,	under,	.88
No. H-57 Boxings (give style and No. of	No. H-76 6 Foot Augers, 11/2 inch and	
threads)	under,Each 4	.32
No. H-58 Thumb-screws Each .20		
No. H-61 Cotter KeysPer Dozen .20	Socket Augers, 11/2 inch and under (give	
No. H-62 Knobs for Small Brace Auger,	diameter) Each 1	.84
Each .40		w.e
No. H-64 High grade Steel Grip Bars Each 2.00		.40
No. H-65 Reversible Thread Bars (give	No. 137 Bit for Small Brace Auger (not	
style and No. of threads) Each 4.00		.60
No. H-70 Small Brace Augers, with detach-	No. 138 Crank and Coupling for Small	
able bit	Brace Auger (not shown)Each 1	.40

Note: Unless otherwise ordered, we will ship 11/2 inch oval augers.

MINERS' TOOLS

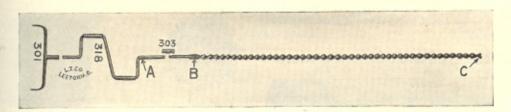
Breast Augers

Breast plates are not fastened to the crank. The twist and crank are connected with a long coupling which makes the auger rigid as if welded.



SINGLE CRANK

No. 300	Single Crank, 5	ft. long with 4 ft. twist,	11/2 in. in diameter Per Dozen \$3	4.00
No. 300	Single Crank, 51/2	ft. long with 4 ft. twist,	1½ in. in diameterPer Dozen 3	34.00
No. 300	Single Crank, 7	ft. long with 6 ft. twist,	1½ in. in diameterPer Dozen 4	2.00



DOUBLE CRANK

No. 319	Double Crank, 6	ft. long with 4 ft twist,	11/2 in. in diameter	
No. 319	Double Crank, 61/6	ft. long with 4 ft. twist.	116 in. in diameter	Per Dozen 44.00

Extra Parts For Breast Augers

			_				
Length of Single Cranks	, from sweep to cou	pling, inches	6 12	18	24	30 36	42
No. 302 Single Cranks		Per Dozen	\$11.00 11.5	0 12.00	13.00	14.00 15.00	16.00
No 218 Double Cranks	standard size with	b 6 inch shanl	le.			Per Dozen	\$18.00

Miners' Needles

Drawn to exact taper and polished. Fitted with full grip malleable iron handle.

No. 184 Polished Steel, length 6 ft.
Per Dozen \$ 9.60

No. 175 All Copper, length 6 ft., Per Dozen 42.00

Combination Scrapers and Tampers

Scraper end is made so that it will not push the drillings to the back of the hole. Tamp end has deep groove to prevent it jumping off the needle.

 No. 186
 Polished Steel, length 6 ft...
 Fer Dozen \$12.60

 No. 182
 Copper Head and Scraper, length 6 ft...
 Per Dozen 42.00

Mining Machine Bits

Made from high grade steel that is especially adapted for the purpose.



CHISEL POINT BITS

Nos.		203	204	205
Size,	Inches 34 x 1/2	x3% or 4	7/8×1/2×4	1x1/2x4
Each	80.	106	.124	.14



PICK POINT BITS

Nos.			206	207	208
Size,	Inches		%x1/2x3 % or 4	7/8 x 1/2 x 4	1x1/2x4
Each			\$0.11	.138	.144

EXPLOSIVES

Dynamite



We carry Du Pont Extra Dynamite which is a high grade, low freezing ammonia explosive for general blasting pur-



It is put up in sticks measuring 1½x8 inches and weighs about ½ pound to the stick.

Packed about 98 sticks to the case, weighing 50 pounds.

PRICES RED CROSS EXTRA DYNAMITE

Monobel Permissible Mine Powders



Monobels are designed primarily for mining coal, especially in gaseous or dusty mines. They are Low Freezing and are packed about 135 sticks to the 50 pound case.



No. 6—A fast, strong powder, designed for hard or solid shooting and narrow heading work.

No. 4—A medium fast and excellent lump coal powder. Standard for general coal mine work.

No. 5—A slow permissible and the nearest to Black Powder in action.

PRICES MONOBEL PERMISSIBLES

 Numbers
 6
 4
 5

 Speeds
 Fast
 Medium
 Slow

 Sticks 1½x8—50 Lb. Cases—Priced
 Per 100 Lbs.

Duobel Permissible Mine Powder



A Monobel type permissible, which has been developed so that objectionable fumes have been reduced to a minimum. The number of sticks to a case run more than any other permissible powder. Packed about 155 sticks to the 50 pound case. Size of sticks 14x8 inches.

Duobel Permissible Priced Per 100 Pounds

"Judson" or Railroad Powder

This is a black, granular, free-running e x p l osive packed in paraffine p a p e r bags containing 12½ pounds each and packed four bags to the 50 pound case. It is low-freezing and requires no thawing except when long exposed to severe weather conditions. It is used extensively for stripping and on construction work in both rock and earth.



It resists water poorly, and requires a detonator of at least 5 pounds of 40 per cent. straight dynamite for every 25 pounds of Du Pont R. R. P.

Du Pont R. R. Powder . . . Priced Per 100 Pounds

Blasting Powder







Best quality Du Pont Standard Blasting Powder for general blasting purposes. Put up in steel kegs or drums containing twenty-five pounds.

Blasting Paper



Special Quality Blasting Paper put up in One Pound Rolls 9 inches wide containing about 85 lineal feet. One hundred rolls in a case. We do not break cases.

One Pound Rolls Priced Per Case 100 Rolls

Powell's Miners' Squibs

Powell's Patent End Squibs. The acknowledged Standard. Fire, Water, Gas Proof. Part of the match is within the squib. No seal to cut. To be used as they are. Put up 100 squibs in a box and packed 100 boxes in a case Priced Per Case

EXPLOSIVES

Blasting Caps



Blasting Caps are the detonators used for firing high explosives when electric blasting is not practiced. They must always be used with Safety Fuse, and are in no way intercnangements with Electric Blasting Du Pont Standard Caps. Packed 25 and 100 Caps One, two, three and five thousand to the case.

... 25 in a Box 100 in a Box No. 6 Blasting Caps Priced Per 100

Safety Blasting Fuse



Safety Blasting Fuse is the medium of bringing sparks to blasting caps to fire them and to ignite charges of blasting powder. It is made up of a fine train of powder tightly compressed

in, and more or less water-proofed by inner and outer coverings of tape, yarn or twine. Put up in 50 ft. coils, nested two coils to a roll. 1,000 ft. in a

"CRESCENT" FUSE. A High Grade Waterproof

Blasting Cap Crimper



This is a special tool for fastening blasting caps to Fuse and for punching holes in cartridges of dynamite for in-

serting the detonator. Also has a fuse cutter.
No. 2 Blasting Cap Crimper......Priced Each

Leading Wire



Duplex Leading Wire is made by binding together two insulated copper wires with an outside insulation, thus giving a return

may be handled the same as a single wire. Used for connecting electric fuses to blasting machine. Put up 500 feet in a coil. Number of feet to the pound, about 26Priced Per Pound

Connecting Wire



This is a single No. 20 insulated copper wire for connecting electric blasting

Electric Blasting Caps



Blasting Caps are special detonators fired or exploded by an electric current. They are made with either copper or iron wires of various lengths. Twenty foot wire size packed 25 to a carton, all other sizes 50 in a carton.

ELECTRIC BLASTING CAPS WITH IRON WIRES Length of Wires 4' 6'

ELECTRIC BLASTING CAPS—COPPER WIRES Length of Wires 4' 6' 8' 10' 12' 16' 20' Length of Wires 4' 6' 8' 10' 12' 16' 20'
All Electric Blasting Caps Priced Per 100

Pocket Blasting Machine



Is designed primarily for blasting, where it is not necessary to fire more than four electric blasting caps at one time, and where it is desirable to have a small, light and compact blasting machine. It is operated by a key which is removable. Weight about 21/2 Lbs.

Pocket Blasting MachinePriced Each

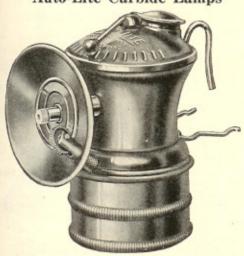
Blasting Machines



Blasting Machines are used to generate the current for firing blasts by electricity. They are made in five sizes to meet every requirement. We can supply any size promptly from factory but only carry the No. 3 in stock. This is the size for quarry and mine. It is the Standard Machine. Its capacity is thirty electric blasting caps with copper wires. Weight, 25 pounds. Due to its small size this blasting machine can be easily carried and operated with satisfactory results. It is recommended for all general blasting operations. It is small enough to be carried easily, and yet is strong enough for anything except the largest blasts.

MINERS' CARBIDE LAMPS AND LANTERNS

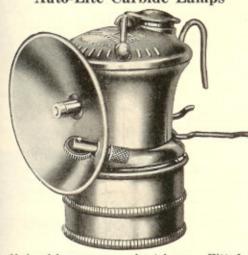
Auto-Lite Carbide Lamps



Made of heavy gauge sheet brass. Fitted with Made of heavy gauge sheet brass. Fitted with improved water dropper which never gets clogged up and never needs cleaning. Top of water tank is notched and holds the water regulator firmly in position. Knurled bands on carbide container strengthen it and give a firm grip when unscrewing the container from the water tank. Fitted with nickel plated deep reflector, spark lighter, round wire cap hook and spreader. Burns 3½ to 4 hours without charge. Weight 5 ounces Weight 5 ounces. 4 hours without charge.

No. 101X Polished Brass, Nickel Reflector Miners' Lamps Priced Per Dozen

Auto-Lite Carbide Lamps



Made of heavy gauge sheet brass. Fitted with improved water dropper which never gets clogged up and never needs cleaning. Top of water tank is notched and holds the water regulator firmly in position. Knurled bands on carbide container strengthen it and give a firm grip when unscrewing the container from the water tank. Fitted with nickel plated deep reflector, spark lighter, round wire cap hook and spreader. Burns 3½ to 4 hours without charge. Weight 5 ounces.

No. 102X Polished Brass, Large Reflector

Guy Dropper Miners' Lamps



Made of heavy gauge sheet brass throughout. Equipped with Guy's pat-ented water dropper which is fitted with valve cleaner. If dropper becomes clogged a few turns of the knurled thimble at end of dropper tube will open it. Has a 2½ inch deep brass polished reflector. The reflector is deep enough to protect

the burner from water.
Spark lighter attached to reflector. Round wire hook and clasp. Carbide container has two knurled bands which enable miner to get a firm grip. Height of lamp 31/4

No. 28-SL Polished Brass Miners' Lamps,Priced Per Dozen

Grier Bros. Carbide Lamps



The top is reinforced with wire which prevents its being knocked out of shape and acts as a water controller. The brass reflector is soldered and braced to the body. Equipped with lighter attachment, round hook and lever valve feed. Made heavy to withstand hard and continued use.

No. 96 Polished Brass Miners' Lamps. . Per Dozen

Justrite Carbide Lanterns



Constructed of brass throughout and for operating purposes is composed of but two parts; the upper frame with handle and wire guards enclosing the glass globe, burner, gas feed and carbide container; and the lower bowl or water res-Globe is of heavy, clear glass held in place by spring device. Lamp is nickel plated and highly polished. Removable reflector. Automatic generator. Height 9 inches. Gives 20 candlepower light. Burns 5 to 6 hours with 3 ounces of carbide. Weight each 2½ pounds. Packed in metal

MINERS' CARBIDE LAMPS

Victor Carbide Lamps



Constructed of heavy gauge brass with extra heavy bottom, double seamed to prevent leakage of gas and water. Water feed can be adjusted to permit the water to flow freely and makes the flame respond quickly to regulation. Reflector has wire edge and is fastened to the lamp with a knurled nut. Lamp is equipped

with regulating water feed, detachable reflector and lighter attachment, round hook and cap brace. Has lever valve feed and 2% in. reflector.

No. 663 Polished Nickel Plated Lamps, Per Doz. No. 661 Polished Brass Lamps Per Doz.

Justrite Carbide Lamps



Concave Reflectors

Made of heavy gauge brass, double seamed bottom to prevent leakage of gasand water. Equipped with 2½ in. concave reflector, metal water door and polygon valve feed which has a square button threaded and sold-

ered to the valve stem. Set rigid and can not get out of line, is a positive water shut off and will never leak. Sharp corners of the button break and rip the caked carbide and insure a steady, free water flow.

No. 707 Polished Brass Lamps Per Dozen No. 709 Polished Nickel Plated Lamps . . Per Dozen

Justrite Carbide Lamps



Saucer Shaped Reflectors

Made of heavy gauge brass, double seamed bottom to prevent leakage. Equipped with 3 in. saucer shaped reflector, lighter attachment, metal water door and polygon valve feed same as

feed same above; round cap hook and flat cap brace.

No. 769 Polished Nickel Plated Lamps. . Per Dozen

Justrite Superintendents' Carbide Lamps



Heavy gauge brass construction, equipped with lighter attachment, round hook and folding handles. Has lever valve feed and 3 in. reflector; carbide can also included with each lamp. Lamp burns 4 hours on one filling of carbide container.

No. 95 Polished Nickel Plated Lamps . . Per Dozen

Justrite Superintendents' Carbide Lamps



Heavy brass construction, made especially for inspection work. Equipped with flame protector, lighter attachment, round hook, folding handles and lever valve feed, large reflector gives added protection to the flame. Lamp burns 5 hours with one filling of container.

No. 302 Polished Nickel Plated Lamps. . Per Dozen

Hansen Carbide Miners' Lamps



Made for strength and durability, a l l edges are rolled to prevent bending and breaking, extra heavy bottom crimped together and soldered inside. E q u i p p e d with lighter attachment force feed valve with plunger attachment w h i c h forces more water into the

carbide without moving the lever, as may be required, large concaved reflector, new style combination brace which carries the water cap, hook and cap clasp.

No. 11 Hansen Carbide Lamps . . Priced Per Dozen

MINERS' CARBIDE LAMPS AND LANTERNS

Auto-Lite Carbide Lamps



Made of heavy gauge sheet brass. Fitted with improved water dropper which never gets clogged up and never needs cleaning. Top of water tank is notched and holds the water regulator firmly in position. Knurled bands on carbide container strengthen it and give a firm grip when unscrewing the container from the water tank. Fitted with nickel plated deep reflector, spark lighter, round wire cap hook and spreader. Burns 3½ to 4 hours without charge. Weight 5 ounces.

No. 101X Polished Brass, Nickel Reflector Miners' Lamps Priced Per Dozen

Auto-Lite Carbide Lamps



Made of heavy gauge sheet brass. Fitted with improved water dropper which never gets clogged up and never needs cleaning. Top of water tank is notched and holds the water regulator firmly in position. Knurled bands on carbide container strengthen it and give a firm grip when unscrewing the container from the water tank. Fitted with nickel plated deep reflector, spark lighter, round wire cap hook and spreader. Burns 3 ½ to 4 hours without charge. Weight 5 ourses without charge. Weight 5 ounces.

Guy Dropper Miners' Lamps



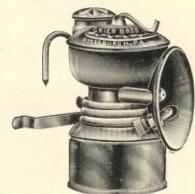
Made of heavy gauge sheet brass throughout. Equipped with Guy's patented water dropper which is fitted with valve cleaner. If dropper becomes clogged a few turns of the knurled thimble at end of dropper tube will open it. Has a 2½ inch deep brass polished reflector. The reflector is deep enough to protect the burner from water.

Spark lighter attached to reflector. Round wire hook and clasp. Carbide container has two knurled bands which enable miner to get a firm grip. Height of lamp 31/4

No. 28-SL Polished Brass Miners' Lamps,Priced Per Dozen

No. 280-SL Nickel Plated Miners' Lamps,Priced Per Dozen

Grier Bros. Carbide Lamps



The top is reinforced with wire which prevents its being knocked out of shape and acts as a water controller. The brass reflector is soldered and braced to the body. Equipped with lighter attach-ment, round hook and lever valve feed. Made heavy to withstand hard and continued use.

No. 96 Polished Brass Miners' Lamps. . Per Dozen

Justrite Carbide Lanterns



Constructed of brass throughout and for operating purposes is composed of but two parts; the upper frame with handle and wire guards enclosing the glass globe, burner, gas feed and carbide container; and the lower bowl or water res-Globe is of heavy, clear glass held in place by spring device. Lamp is nickel plated and highly polished. Removable reflector. Automatic generator. Height 9 inches. Gives 20 candlepower light. Burns 5 to 6 hours with 3 ounces of carbide. Weight each 21/2 pounds. Packed in metal

REPAIR PARTS FOR MINERS' CARBIDE LAMPS



Bottoms

Extra bottoms for all cap lamps except No. 287.

No. 68 Polished Brass Each \$0.20

Pocket Carbide Cans



Made of light steel, tin coated, ribbed, double seamed and sliding cover, air tight, concaved to fit the boot or hip pocket. Holds full day's supply.

No. 77 Capacity 10 Ounces CarbideEach \$0.15

Carbide Flasks

Made of heavy tin, double seamed, strong and durable. Oval shape, size 6%x2x3 in. Knurled screw cap. Large opening and empties freely.

No. 23 Capacity 1 Lb. Carbide Each \$0.20



Reflectors



No. 26 No. 25 3 in. aluminum polished... .Each \$0.25 No. 26 21/2 in. brass, polished with lighter attached and adjustable to fit around the

Lamp Clips

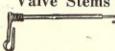


For Use on Miners' Caps

Takes the place of spreader wires on lamp. The clip snaps to tin shield on cap. Can also be attached with rivets to lapel of coat or sewed to hat or coat.

No. 75 Lamp Clips Per Dozen \$1.80 One dozen in a box.

Valve Stems



No. 78 Valve Stems for Lever Feed Lamps No. 16 Cleaning Wire for No. 78 Stems Each

Lava Tips

Jewel Metal Tips





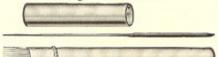
No. 66 No. 28 Lava Tips with Air Holes.... Each Jewel Metal Tips, shell is made of Each \$0.03 brass with lava burner insert, cannot break

Tip Cleaners



No. 37 Wire Brush with Sliding Cover Each \$0.15

Tip Reamers



One dozen in metal tube Per Dozen \$0.65 No. 145

Lighters

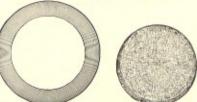


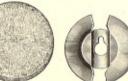
A new idea for lighting fuse, safer than matches, never fails. Lights carbide lamps Each \$0.25



		Nº177	N2172
No.	177	Lighter, Complete	
		Flints	
No.	173	Springs	Per Dozen .36
		Screw Caps	

Gasket Packing Felt Holders





		1	
No. 60	No. 62	No.	64
No. 60 Rubber Gasket	s Per	Dozen	\$0.36
No. 62 Felt Packing			.36
No. 64 Felt Holder.	Per	Dozen	.60

LAMP REPAIR OUTFITS AND CARBIDE

Auto-Lite Repair Outfits



CONTENTS OF AUTO-LITE OUTFITS

- 6 dozen felts
- 6 dozen rubber gaskets 6 complete lighters
- dozen flints 3 dozen lava tips

- 6 brass felt holders Auto-Lite Outfits. In a box.....Priced Each

Justrite Repair Outfits



- 3 dozen No. 60 gaskets
 3 dozen No. 62 felts
 1/2 dozen No. 64 felt
 holders
 2 dozen No. 66 lava tips
 2 dozen No. 28 metal tips
 2 dozen No. 172 flints
 1 dozen No. 173 springs
 1 dozen No. 174 screw
 caps
- dozen No. 182 hex. nuts % dozen No. 177 lighters
- complete 1 dozen No. 37 tip clean-

No. 2 Repair Outfits......Priced Each

These outfits are in a heavy cardboard box, covered with waterproof paper, reinforced corners, strong and durable.

CONTENTS OF NO. 3 REPAIR OUTFITS



- No. 62 No. 64 No. 66 felts holders tips tips
- No. 66 tips No. 28 tips No. 22 cleaners No. 37 cleaners No. 16 wires No. 78 stems No. 145 reamers No. 171 lighter No. 172 flints No. 173 spring No. 174 screw caps
- 12 No. 174 screw caps 12 No. 176 forks and nuts 12 No. 181 water caps 12 No. 182 hex. nuts 4 No. 113 valve

- stems

In handsome metal show case with glass cover and drawer opening from back. White enameled finish.

No. 3 Repair Outfits......Priced Each

"Union" Carbide





10 Pound Can



100 Pound Drum



25 Pound Drum

"Union" Carbide, because of its high gas yield, special selection, uniform size, freedom from dust and its uniform quality, is the most economical and satisfactory carbide for all uses. It is the recognized standard and the world's best quality.

"Union" Carbide is adapted for use in Miners' Lamps, Automobile Generators, House Lighting Generators, Oxy-Acetylene Welding Generators, Contractors' Torches, etc.

"Union" Carbide is put up in Two and Ten pound cans and Twenty-five and One Hundred pound drums. The Two and Ten pound cans are equipped with a compression top while the Twenty-five and One Hundred pound drums have screw tops. The tops can easily be replaced in position, so that the carbide remaining in the container will be thoroughly protected from air and moisture. "Union" Carbide will keep indefinitely if protected from air and moisture.

PRICES

- 2 Pound Can (24 Cans in a Case) Priced Per Can
- 10 Pound Can (6 Cans in a Case) Priced Per Can
- 25 Pound Drum (Loose) Priced Per Drum
- 100 Pound Drum (Loose) Priced Per Drum

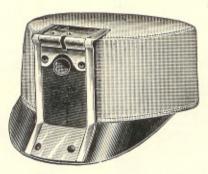
MINERS' SUPPLIES

Miners' Acetylene Lamp Caps



Made of heavy weight, special shrunk duck, flannel lined. Visor made of heavy material and covered with duck. Will not be affected by water or dampness. Lamp Holder is constructed of XX tin and interlined with vulcanized fibre. Lamp holder is especially adapted for carrying acetylene

No. 97 White Duck Priced Per Dozen



Made of heavy weight, special shrunk duck, mel lined. The visor is of heavy sole leather, flannel lined. 2½ inches wide. Sole leather lamp holder with a metal top-piece for carrying lamp.

No. L80 White Duck......Priced Per Dozen

Miners' Electric Lamp Caps



All above, packed one dozen assorted sizes in a box.

Powder Cans



IX tin, capacity 5 pounds or about 2 quarts. Side handle and cone shaped nozzle cover. Height 51/2 inches.

Weight per dozen 23 lbs.

No. 2 Round Powder CansPriced Per Dozen

One dozen in a case.



With squib box, IX tin, capacity 5 pounds or about 2 quarts. wire bail and cone shaped nozzle cover. Weight per dozen 27 lbs.

No. 020 Round Powder Cans Priced Per Dozen

One dozen in a case.



Powder Flasks

IX tin, oval shape with slip cover and side loops for strap or rope. Capacity 5 pounds. Weight per dozen 25 lbs.

No. 05 Oval Powder Flasks Priced Per Dozen

One dozen in a case.

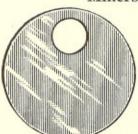
Squib Boxes



Oval pattern, heavy tin; holds 100 squibs; weight per dozen, about 11/2 lbs.

No. 66 Squib Boxes......Priced Per Dozen

Miners' Checks



Brass check, 1% in. in diameter, % in. hole, 500 in a box.

No. 51 Miners' Checks ... Priced Per 1000

Prices quoted on application for checks stamped in figures or letters.

Wilpet Miners' Checks

inches in diameter, in inch hole. Brass plated.

Wilpet Miners' Checks...... Priced Per 1000

1,000 in a box.