

No.	Size, Inches			Duck,	Ozs.
	Price, Each				
8	14½x24	14½x29	18x29		15
9	.39	.47	.56½		14
10	.34½	.42	.51		12

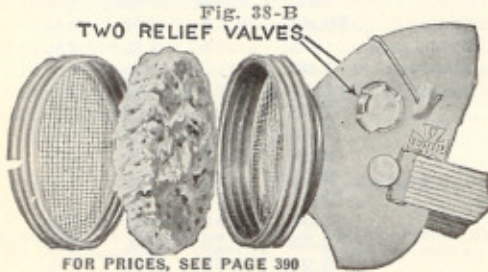
Plain ore sacks equipped with Boss fasteners, each 8 cents extra. Size of sack is based on size cut, before sewing, which makes all sizes finished about one-half inch less than size specified.

SPECIE OR SAMPLE BAGS
8-OUNCE DUCK WITH TIE STRINGS

No.	Size, Ins.	Price per 100	No.	Size, Ins.	Price per 100
0—	4x7	\$ 9.50	3—	9x15	\$25.00
1—	6x10	15.00	4—	10x21	54.00
2—	7x14	20.00	5—	12x16	52.00

Any size not listed made to order if desired. Made with draw strings in place of the strings at 25 per cent additional. Also made of light drill or any weight duck at proportionate prices.

WILLSON RESPIRATORS



RUBBER RESPIRATORS



ELECTRIC BLASTING CAPS
FOR USE WITH BLASTING MACHINES

These caps are for detonating charges of high explosives. The explosive charge is contained in a copper cylinder similar to the ordinary blasting cap, but the explosion is caused by an electric spark brought along a pair of small copper wires. By the use of electric caps, any number of charges can be fired at the same time. The wires attached to the caps range in length from 4 to 20 feet, in two-foot steps. Each fuse is folded separately. Packed in neat paper cartons as follows:
Length of wires, 4 to 16 feet, inclusive, 50 per carton; 18 and 20 feet, 25 per carton; 10 cartons in a case. Made in two strengths. The No. 8 are almost double the strength of the No. 6 and they are strongly recommended where large charges of explosives are to be detonated.

No.	Price, per Hundred	Length Shell, Inches	Caliber Shell, Inches	Color of Label
6	\$.....	1½	.273	Red
8	\$.....	2	.273	Green

Shipping weight, per case of 500: 4 ft. length, 25 pounds; 6 ft. length, 31 pounds; 8 ft. length, 38 pounds. Blasting caps cannot be shipped by express or parcel post.

BLASTING MACHINES



POCKET



Nos. 2, 3 and 5-G. M.

Blasting machines are small, portable electric generators built for generating current to fire electric blasting caps and electric squibs. The mechanism is operated by a rack bar or plunger protruding through the top of the machine. When operating this bar is pulled up as far as possible, and then forced down with a quick, hard thrust. This sets in motion the armature and builds up the current until the bottom is reached, when the connections are automatically completed and the current flows out through the leading wires to the electric blasting caps placed in the charges of explosives.

No.	Price, Each	Shp. Weight, Pounds	*Maximum Capacity Copper Wire
Pocket	\$16.00	6	3
2	18.00	20	10
3	30.00	30	30
3A	35.00	30	50
5GM	60.00	68	100
Davis Pocket	25.00	6	10

GENERAL USES OF MACHINES

Pocket—Coal mining, stump and boulder blasting. No. 2—Springing bore holes, shooting small rounds. No. 3—Standard for mine and quarry work. No. 3A—More extensive mine, quarry and excavating work. No. 5GM—Built for severe usage and large-scale work. Davis Pocket—Coal mining, stump and boulder blasting.

Pocket machines are operated by turning key. Nos. 2, 3, 3-A, 5-GM are the push-down type.

*Maximum capacity in electric blasting caps when using copper wire.

LEADING WIRE

Leading wire is insulated copper wire for conducting the current from the blasting machine to the blast. Has a strong insulation especially suited for the rough usage it must receive. There are two kinds, single and duplex. In coils of 200, 250, 300 and 500 feet.

No. 14—B. & S. gauge, single leading wire, 52 feet per pound.....\$.
No. 14—B. & S. gauge, duplex leading wire, 26 feet per pound.....\$.
No. 14—B. & S. gauge, duplex leading wire, 26 feet per pound.....\$.
No. 14—B. & S. gauge, duplex leading wire, 26 feet per pound.....\$.



CONNECTING WIRE

Connecting wire is used to complete the circuit when the holes or charges are placed too far apart for the electric blasting cap wires to reach. Put up on 1-pound spools.

No. 20—B. & S. gauge, connecting wire, about 210 feet per pound.....\$.
No. 20—B. & S. gauge, connecting wire, about 210 feet per pound.....\$.

BLASTING CAPS

Fig. 40-A



Supplied in two strengths, Nos. 6 and 8, corresponding to the same numbers in electric blasting caps. No. 6, in red boxes, are 1½ inches long; No. 8, in green boxes, 2½ long.

Packed in boxes of 100 caps, in cases as follows:

Number of case.....	0	1	2	3	5
Quantity of caps, per case.	500	1,000	2,000	3,000	5,000
Shipping weight, pounds—					
No. 6 caps.....	6	11	18	29	40
No. 8 caps.....	11	16	24	44	62

Blasting caps cannot be sent by express or parcel post.
Prices on application.

DU PONT CAP CRIMPERS

Fig. 40-B



No. 1—CAP CRIMPER

No. 1—Made of white steel with sleeve type crimping jaws. One handle pointed for use as a punch when making primers. Length, 5½ inches.
No. 1 Cap Crimper. Price, each\$0.90

Fig. 40-C



No. 2—CAP CRIMPER

No. 2—Made of steel, nickel plated. Combined crimper and fuse cutter. One handle pointed for use as punch, the other has screwdriver bit. Length, 7 inches.
No. 2 Cap Crimper.....Price, each \$1.35

DYNAMITE

FOR BLASTING PURPOSES

Dynamite differs from blasting powder, commonly called black powder, in that it is more powerful, detonates with much greater rapidity, and has a greater shattering effect. There are many different kinds of high explosives, but for mining, quarrying, agricultural work, etc., we list the grades most general in use.

RED CROSS EXTRA—LOW FREEZING

20% strength, in sticks, 1¼x8 inches, for tree-planting, sub-soiling and general agricultural use.

40% strength, in sticks, ¾ to 1¼x8 inches, for stump blasting, quarrying and metal mining.

GELATIN—LOW FREEZING FOR UNDERGROUND WORK

40% strength, in sticks, ¾ to 1¼x8 inches, for hard rock.
60% strength, in sticks, ¾ to 1¼x8 inches, for very hard rock.

Put up in tight wooden cases which contain 25 or 50 pounds (net) of dynamite. Prices on application.

We are in position to furnish dynamite for all purposes such as stump blasting, ditching, etc. Write for information.

Fig. 40-D



RED CROSS EXTRA

Fig. 40-E



GELATIN

BLASTING POWDER

BLACK

Blasting powder is produced in granulations or grain of various sizes. Specially adapted for coal mining, quarrying, general excavating, etc.

Put up in steel kegs containing 25 pounds of powder.

PELLET

Du Pont Pellet Powder is an improved deflagrating explosive for use in mining coal. It is made in cylinders with a central perforation, and these cylinders, or pellets are placed end to end and wrapped in thin paraffined paper to form cartridges. Made in several different speeds. Which speed of pellet powder is best adapted for mining a particular seam of coal can be most satisfactorily determined by trial. Cartridges of pellet powder are packed in wooden boxes, 25 or 50 pounds to the box.

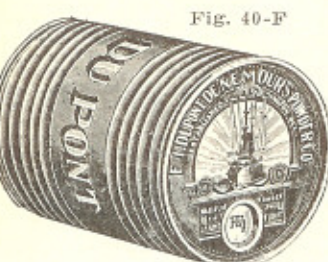


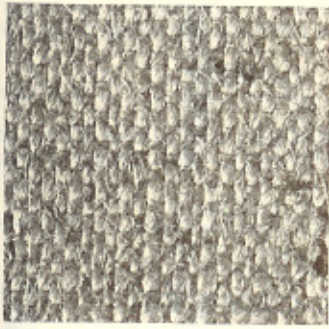
Fig. 40-F

Prices on application.

Explosives cannot be sent by parcel post or express.

JUTE BRATTICE CLOTH
H & B NON-INFLAMMABLE

Fig. 41-A



This is a strong, durable jute fabric that is treated with a specially prepared chemical compound which renders it non-inflammable, making it a safe material for use in mines, particularly in places where it may be subject to flames. Being closely woven, of strong yarns, it is better, more durable and easier handled for such purposes than canvas or wood.

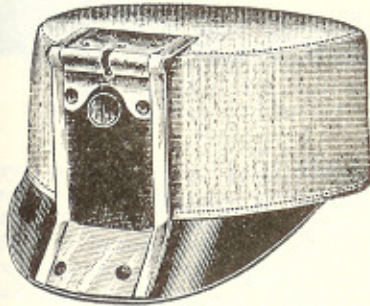
The chemical treatment is for the primary purpose of making the fabric flame-proof but it also protects it from damage due to gases, exposure and moisture and materially adds to the life of the cloth, especially where subject to constant, hard usage. These points are of considerable interest to large users where mines are wet or gaseous.

Carried in stock for immediate shipment in two widths, 54 and 72 inches, in rolls of approximately fifty running yards. Weight, per square yard, about 1 1/2 pounds.
H & B Brattice Cloth.....Price, per square yard \$0.25

MINERS' CANVAS CAPS

MADE OF HEAVY WEIGHT, SPECIAL SHRUNK DUCK, FLANNEL LINED

Fig. 41-B



No. 97

NO. 97 WHITE OR BROWN—FOR CARBIDE LAMPS

Duck covered visor of heavy material; not affected by water or dampness. Lamp holder of 2X tin interlined with vulcanized fibre, making it very durable.

Adapted for carrying carbide lamps of all makes.
No. 97—Miners' Cap (State color)...Price, per dozen \$3.00

NO. 83 WHITE OR BROWN—FOR CARBIDE OR OIL LAMPS

Visor of extra heavy 2 1/4 inch sole leather. Lamp holder of hard, specially treated vulcanized fibre. Made to carry any carbide or oil lamp.

No. 83—Miners' Cap (state color)...Price, per dozen \$4.50

NO. 74 WHITE OR BROWN—FOR ELECTRIC LAMPS

Non-breakable visor of vulcanized fibre. Lamp holder made of specially treated hard fibre; electric, heat and water-proof. Cap has leather fastener on back for carrying electric wires from battery to lamp.

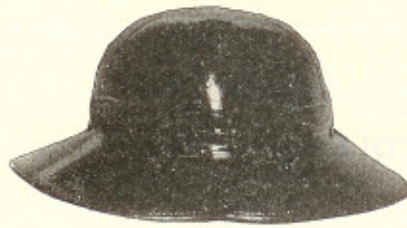
Adapted to carrying any electric lamp.
No. 74—Miners' Cap (state color)...Price, per dozen \$4.50

No. 74-L—Same as No. 74 except has sole leather visor.....Price, per dozen \$4.50

Carried in sizes 6 1/2, 6 3/4, 6 7/8, 7, 7 1/4, 7 1/2, 7 3/4, and 7 7/8. Unless otherwise ordered, dozens will be assorted as follows: 1-6 1/2, 2-6 3/4, 3-7, 3-7 1/4, 2-7 1/2, 1-7 3/4. Will be assorted to suit. Average weight, about 4 pounds to dozen.

HARDBOILED HATS AND CAPS

Fig. 41-C



No. 122

Fig. 41-D



No. 127

These hats and caps are especially designed for protection of the head from the impact of falling objects, electric current, water, acid and fire. Government records of mine accidents show that 40 per cent are due to falling objects. These hats and caps will resist a three-pound wrench dropped from a height of 10 feet or a brick dropped from a height of 7 feet.

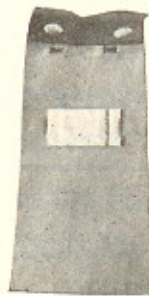
They are made of a special processed fibre pressed together under a patented process. They are light and comfortable, weighing only 7 ounces. Ample air space is provided for the free circulation of air. The lining is adjustable to fit the head comfortably and the leather sweatband insures further comfort and long wear. The wide brim provides additional protection for neck and ears.

No. 122—Standard Southwester...Price, each \$3.00
No. 127—Cap....." " 3.00

Prices listed above include brackets listed below. Unless otherwise specified, No. 152-C leather bracket will be furnished.

STANDARD HARDBOILED LAMP BRACKETS

Fig. 41-E



No. 150-A

Fig. 41-F



No. 151-B

Fig. 41-G



No. 152-C

NO. 150-A

Fiber and Metal Bracket for carbide lamp. Either round or flat hook types. Specify type of hook used.

NO. 151-B

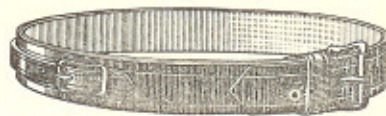
Leather Lamp Bracket with zinc clip for electric lamp or carbide flat hook lamp.

NO. 152-C

Leather bracket for carbide lamp. Standard on slicker type.

MINERS' BELTS

Fig. 41-H

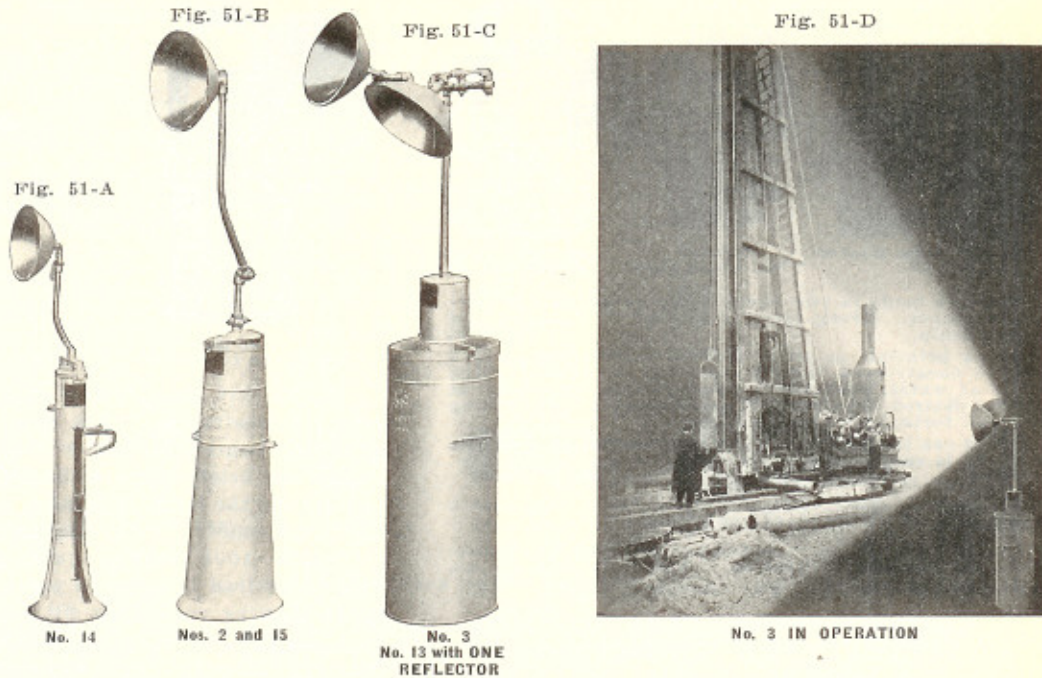


This is an all-leather belt used by miners to carry the batteries for electric lamps. A sturdy belt that will stand severe service a long time. Made in two sizes.

Number 175 300
PricePer dozen \$16.00 \$24.00

CARBIC PORTABLE FLOOD LIGHTS

AN ACETYLENE LIGHT, OPERATING WITH THE CARBIC CAKE



Carbic flare lights are powerful, automatic, reliable, fool-proof and non-explosive. They are a combination of simplicity, strength, economy and durability. All Carbic lights use Carbic cakes, which permits intermittent use, insures accurate charging, gives pure gas and effects material saving in cost of operation.

They operate automatically without use of pumps or moving parts. No mantles, globes, trays, pans, buckets or intricate parts.

All burners are wind and storm-proof. Flame is sootless, smokeless and sparkless. They give many times the light furnished by oil or kerosene for more hours at less money.

Special swing joints make possible the adjusting of reflector to any desired angle. Carbic light does not over-generate. Gas is generated only as required. All Carbic lights consist of but three parts: water tank, cake holder and gas bell, and any light may be fully charged in less than three minutes.

Number	14	15	2	3	13
Candle power.....	4,000	5,000	8,000	16,000	12,000
Price	Each \$33.00	\$40.00	\$48.00	\$60.00	\$55.00
Shipping weight.....	Pounds 37	65	74	118	110
Weight, empty.....	" 16	36	36	79	66
Weight, charged.....	" 30	91	115	200	196
Height (reflector up).....	Inches 56	71	79	79	84½
Diameter of reflector.....	" 10	13	13	(2) 13	15
Charge Carbic Cakes.....	4 No. 5	2 No. 20	4 No. 20	8 No. 20	8 No. 20
Burns	Hours 5	6	12	12	20
Operating cost per hour.....	\$ 0.05	\$ 0.04	\$ 0.06	\$ 0.12	\$0.08

Special catalogue on request.

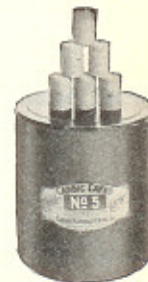
CARBIC CAKES

Carbic cakes are made from the highest grade gas-producing material, compressed into briquet form by a special process. It is the most efficient means of supplying gas to portable torches, and by far the safest.

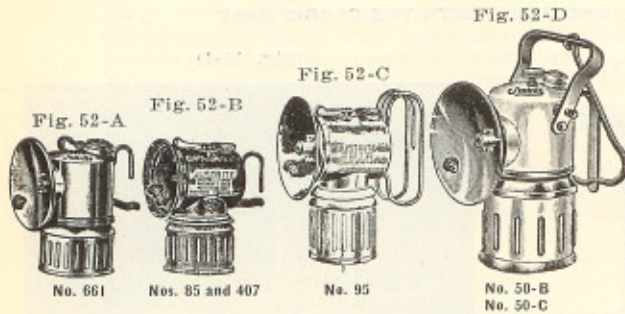
Number of Carbic cake.....	5	20
Weight of drum.....	Pounds 76	107
Number of cakes in drum.....	108	40
Size of cakes (diameter).....	Inches 2	4
Price	Per drum \$9.00	\$9.00



Fig. 51-F



JUSTRITE CARBIDE MINE LAMPS



They are made in two parts, water reservoir and carbide container. Every lamp is perfect in material and workmanship.

A new principle in water feed—a valve enclosed in a tube, so constructed that it increases or decreases the supply of water, enabling the user to burn the flame at any size desired. The valve is operated by a lever sliding back and forth over notches.

Water cap has water chamber to prevent leakage. Fits snug and is easy to open and close.

The hook is riveted and soldered, fits all caps.

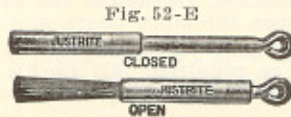
The clasp is made of spring brass, holds lamp secure to cap; will fit all standard cap shields.

No.	Description	Reflector Size, Ins.	Reflector Kind	Ht. Ins.	Wt. Ozs.	Burning Cap., Hrs.
*661	Polished brass....	2 3/4	Saucer	3 3/4	5	2 1/2
‡ 85	Polished brass, with carbide can	2 1/4	Concave	3 3/4	5	2 1/2
‡ 407	Polished brass....	2 1/4	Concave	3 3/4	5	2 1/2
50-B	Rustproof steel..	4	Saucer	6	20	8
50-C	Polished brass....	4	Saucer	6	20	8
‡ 95	N. P. brass, with carbide can.....	3	Concave	4 3/4	7	4

*Detachable reflector and base, polygone feed.
‡Wire feed.

All above lamps are equipped with lighters.

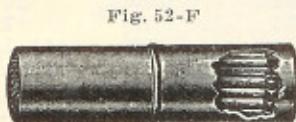
JUSTRITE WIRE TIP CLEANERS



No. 37 contains 50 hard rustproof steel wires. Sliding cover protects wires when not in use.

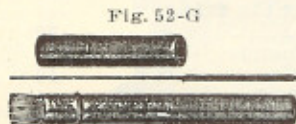
No. 22—Wire tip cleaner with hard rustproof steel wires, without sliding cover.

WATERPROOF MATCH BOXES



Round, seamless brass, nickel-plated. Size, 2 1/2 x 1 1/2 inches
No. 75—Match box.....

JUSTRITE TIP REAMERS

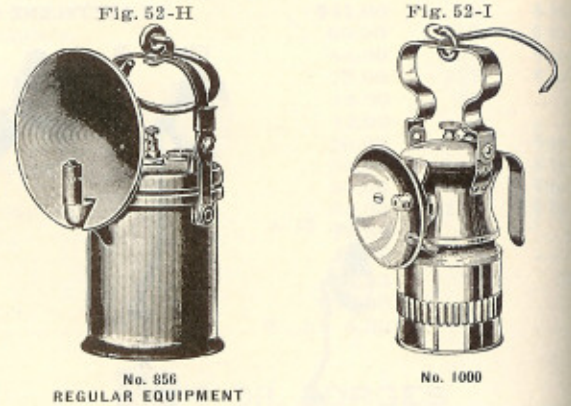


No. 145—Reamers, 1 dozen in metal tube.....
No. 148—Reamers, 1 gross in paper.....
No. 150—Empty reamer cases.....

We will gladly furnish anyone interested with special circulars and catalogues covering the complete line, together with prices, upon request.

WOLF CARBIDE MINE LAMPS

STEEL AND BRASS



The No. 856 Lamp is very simple, but nevertheless strongly constructed. As it is equipped with a non-adjustable automatic water feed, it burns with a steady and bright flame without requiring any attention during the shift. The lamp is made with a sharp hook, convenient for hanging on timbers or wall.

The No. 1000 Lamp is equipped with a non-adjustable water feed in order to prevent waste of carbide. When starting your lamp, fill container with carbide half full and charge water container full. Screw carbide and water container together and turn knob of the water feed all the way up. Should the light get dim, move the knob up and down, which automatically will clean any residue carbide at the point where the water discharges inside the carbide container. This lamp is especially suitable for use in wet mines. The flame is horizontal and is protected from dripping water. It has a patented eyelet and handle that prevent the swinging of the lamp, thus reducing the fire hazard to a minimum, and will burn eight hours on one charge provided water is added after five hours. It is equipped with self-lighter securely fastened to the reflector and is made of heavy gauge metal.

NO. 856 REGULAR CARBIDE MINE LAMPS

Size	Price, Each	Weight, Pounds	Burning Capacity, Hours	Carbide Consumed in Hours Given in List, Ozs.	Height, Body	Dim., Body	Dim., Reflector
II	\$4.00	1 3/4	7 to 8	8	5	3 3/16	4 3/4
III	3.75	1 1/4	5 to 6	5	4 1/4	3	4 3/4

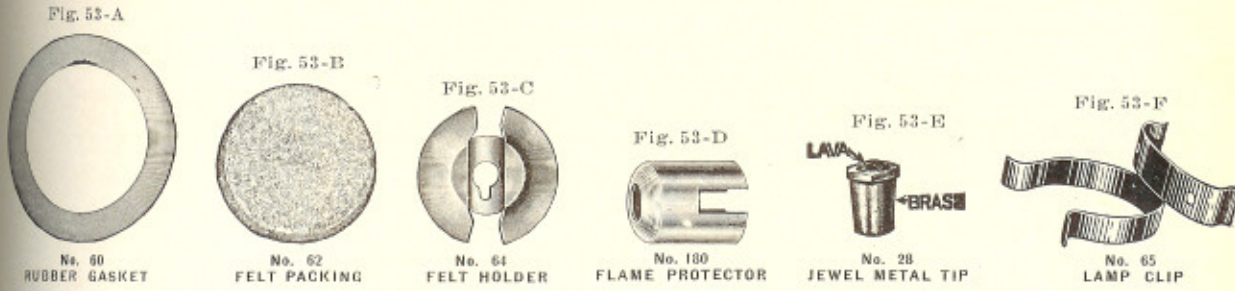
NO. 1000 CARBIDE HAND LAMPS

No. 1000	3.00	1 1/2	8	8	5 1/2	3	3 3/4
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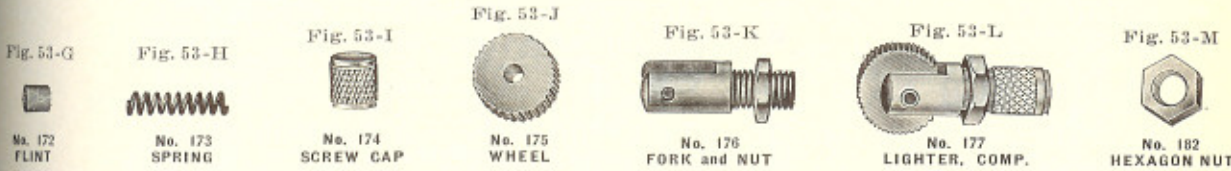
EXTRA PARTS FOR WOLF'S CARBIDE HAND LAMP NO. 1000

Part No.	Description
12-OT	Handle with sharp hook, complete.
13-OT	Water Plug, complete.
17-OT	Knob and upper part for water feed.
19-OT	Rod and knurled nut for water feed.
20-OT	Water Spindle, complete.
23-OT	Rubber Washer.
53-OT	Flame Protector.
54-OT	Burner with lava insert.
55-OT	Reflector with lighter, complete.
56-OT	Lighter only.
78-OT	Felt Washer.
79-OT	Felt Holder.
865	Reamers.
866	Burner Needle in brush form.

SUPPLY PARTS FOR JUSTRITE CAP LAMPS



PARTS FOR LIGHTERS



JUSTRITE REPAIR OUTFIT NO. 3

Handsome metal show case with glass cover. Sliding drawer opening from back. White enamel finish, and contains:

100 No. 60 Gaskets	72 No. 28 Burner Tips	48 No. 172 Flints
100 No. 62 Felts	72 No. 37 Tip Cleaners	72 No. 173 Springs
24 No. 64 Felt Holders	72 No. 145 Reamers	60 No. 174 Screw Caps
72 No. 66 Tips	36 No. 177 Lighters	24 No. 182 Hex. Nuts

For No. 50-B and 50-C, order: No. 52, felt washer; No. 53, felt holder; No. 61, rubber gasket.

Packed in heavy cardboard box, covered with waterproof paper, reinforced corners. Strong and durable.

CARBIDE CONTAINERS

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. Lithographed in three colors, strong and durable. A most convenient and safe carbide supply can. Won't rust.

Capacity, 10 ounces carbide.

No. 77—Pocket carbide can.....\$....

CARBIDE FLASKS

Made of heavy tin, double seamed. Large opening empties freely. A strong, durable flask with screw cap. Oval shape, size 6 3/4 x 2 x 3 inches.

No. 23—Carbide flasks.....\$....

Fig. 53-O



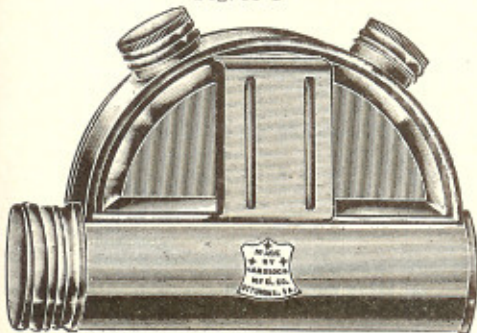
No. 23 CARBIDE FLASK

Fig. 53-N



No. 77 CARBIDE CAN

Fig. 53-P



COMPARTMENT CANTEENS

FOR CARBIDE, WATER AND MATCHES

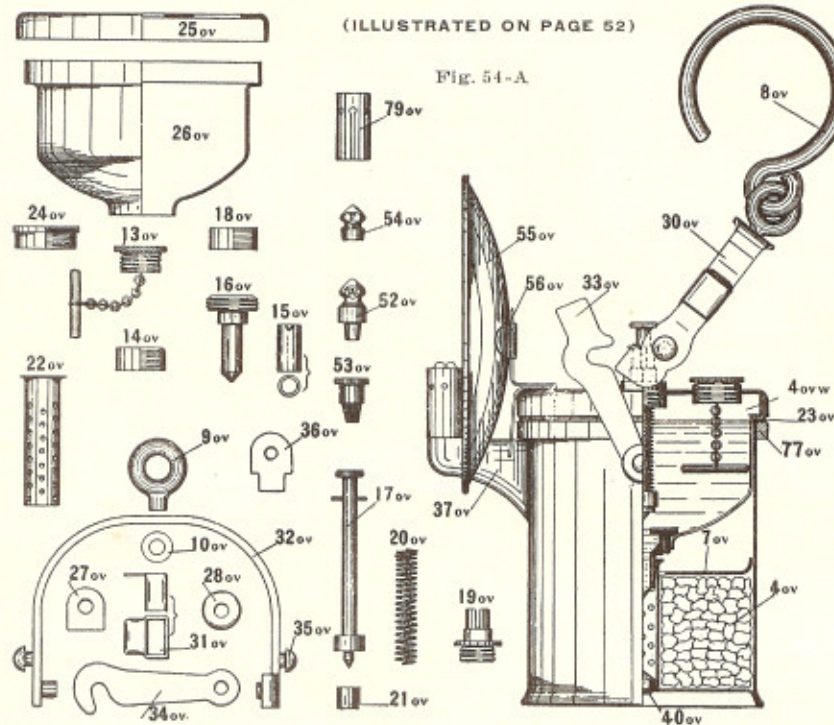
No. 21

Where the miners use acetylene lamps, these canteens will be found very useful. They are made of tin, and weigh 6 1/4 ounces.

Approximate capacity: Carbide, 1/2 pound. Water, 1/2 pint. Matches, 24.

Price.....Per dozen \$6.00

PARTS FOR WOLF CARBIDE MINE LAMPS



(ILLUSTRATED ON PAGE 52)

Fig. 54-A

NAMES OF THE SINGLE PARTS

When ordering, specify the size and whether for steel or brass lamp.

- | | |
|---|--|
| <p>No. 4 ov—Complete carbide holder.
 No. 4 ovw—Complete water holder.
 No. 7 ov—Sheet cover for carbide.
 No. 8 ov—Lamp hook.
 No. 9 ov—Eyelet.
 No. 10 ov—Washer.
 No. 13 ov—Screw plug with chain.
 No. 14 ov—Bush for same.
 No. 16 ov—Water dropper.
 No. 17 ov—Water plug spindle.
 No. 18 ov—Bush for same.
 No. 19 ov—Spindle screw.
 No. 20 ov—Spiral spring for water spindle.
 No. 21 ov—Rubber washer for water spindle.
 No. 22 ov—Water distributing tube.
 No. 23 ov—India rubber washer.
 No. 24 ov—Bush for water dropper.
 No. 25 ov—Cover for water holder only.</p> | <p>No. 26 ov—Water holder only.
 No. 28 ov—Washer for shanks.
 No. 30 ov—Complete locking bridle.
 No. 31 ov—Locking slider.
 No. 32 ov—Bridle with 2 shank pins.
 No. 33 ov—Right shank.
 No. 34 ov—Left shank.
 No. 35 ov—Shank pin.
 No. 36 ov—Bridle bracket.
 No. 37 ov—Burner bracket.
 No. 40 ov—Stud for water distributing tube.
 No. 52 ov—Burner, upper part. (878).
 No. 53 ov—Burner, lower part. (881).
 No. 54 ov—Burner, only (lava tip). (879).
 No. 55 ov—Reflector. (863).
 No. 56 ov—Reflector holder.
 No. 77 ov—Strengthening ring for carbide holder
 No. 79 ov—Protecting tube for burner.</p> |
|---|--|

**BURNERS FOR WOLF CARBIDE MINE LAMPS
WITH TWO OPENINGS**

Fig. 54-B



878

Fig. 54-C



881

Fig. 54-D



882

No.	Price, Each
878	\$0.06
88107
88210

When ordering, always give number of burner desired.

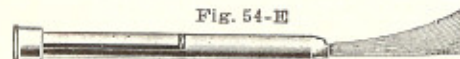
BURNER NEEDLES

For cleaning burner tips.

No. 866 Burner Needles . . . Price, each \$0.20

Special catalogue showing our complete line of Wolf Carbide Lamps and prices on application.

Fig. 54-E



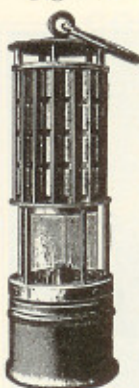
No. 866 in BRUSH FORM

WOLF SAFETY MINE LAMPS

STEEL OR ALUMINUM

APPROVED BY BUREAU OF MINES

Fig. 55-A



No. 100
WITH MAGNETIC LOCK

No. 100—This lamp is equipped with a magnetic lock which renders unauthorized opening impossible.

See No. 3,000 Magnet below.

This lamp is approved by the U. S. Bureau of Mines and meets the requirements of all states.

Lamps are made to take air from below, have corrugated shield, and have internal metal spark igniter.

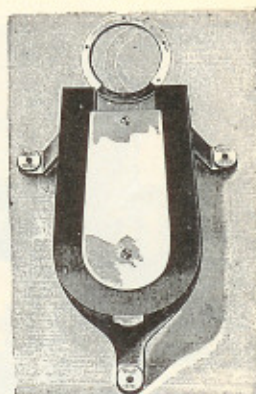
The lamp vessel is filled with an absorbent material consisting of specially prepared cotton wool which lasts indefinitely.

The illuminating power of these lamps is about 1½ candle-power.

Height over all 11 inches.

Carried in stock with magnetic lock, made of steel or aluminum, with round burner and metal spark igniter.

Fig. 55-B



No. 3000
HORSESHOE MAGNET

A pair of swivel pliers and a forked key should also be ordered, to operate the lamp.

No. 3,000 Horseshoe Magnets. Every mine using No. 100 lamps should have one of these special magnets for locking and unlocking the lamps. Magnet is never furnished with lamps but must be ordered as an extra.

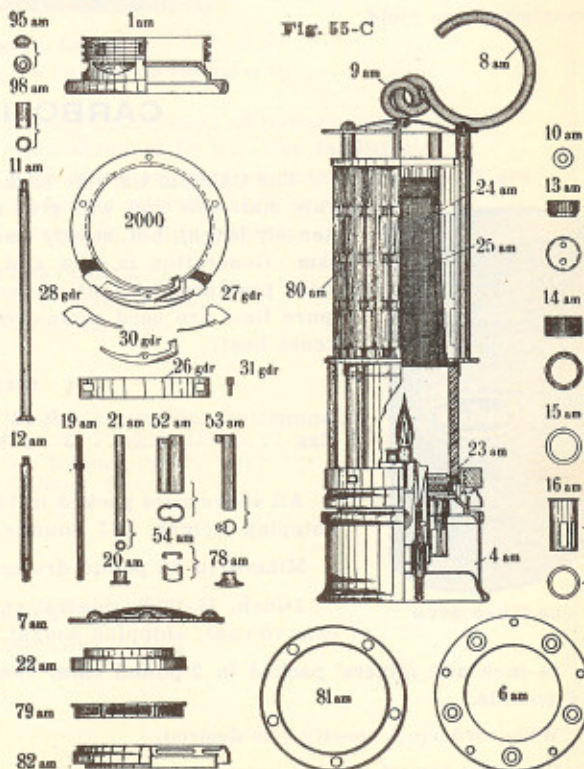
Number	100	
	Steel	Aluminum
Metal		
Price	Each \$6.00	\$8.75
Weight, each	Pounds 3 ½	2 ½

Price, Each

No. 3000—Horseshoe Magnet	\$25.00
No. 1505—Metal Spark Igniter, complete	1.30
No. 1506—Metal Spark Pin, explosive proof	.30
No. 4033-A—Swivel Tong	.85

NAMES AND NUMBERS OF PARTS NOS. 100 AND 131 WOLF NAPHTHA SAFETY LAMPS AND MAGNETIC LOCK

- No. Name of Parts.
- 1 am—Top of lamp fount.
 - 4 am—Lamp fount.
 - 6 am—Middle ring.
 - 7 am—Dome top of lamp.
 - 8 am—Handle of lamp.
 - 9 am—Eyelet.
 - 10 am—Washer.
 - 11 am—Rods with screw heads.
 - 12 am—Rods fronting glass chimney.
 - 13 am—Filling hole stopper.
 - 14 am—Filling hole.
 - 15 am—Leather washer.
 - 16 am—Cylindrical cotton spreader.
 - 19 am—Wick Adjuster.
 - 20 am—Bushing.
 - 21 am—Wick adjuster guide tube.
 - 22 am—Gauze ring.
 - 23 am—Expansion ring.
 - 24 am—Outer wire gauze.
 - 25 am—Inner wire gauze.
 - 52 am—Burner for round wick.
 - 53 am—Wick holder for round wick.
 - 54 am—Wick stop for round wick.
 - 78 am—Wick adjuster knob.
 - 79 am—Air admission ring with double wire gauze.
 - 80 am—Corrugated shield.
 - 81 am—Strengthening ring for shield.
 - 82 am—Protecting ring for air admission.
 - 95 am—Nut for 11 am.
 - 98 am—Tube for fastening 81 am.
 - 2000—Complete Magnetic lock.
 - 26 gdr—Protecting plate.
 - 27 gdr—Anchor spring and spring pole.
 - 28 gdr—Anchor pole.
 - 29 gdr—Spring.
 - 30 gdr—Anchor beam.
 - 31 gdr—Anchor screw.



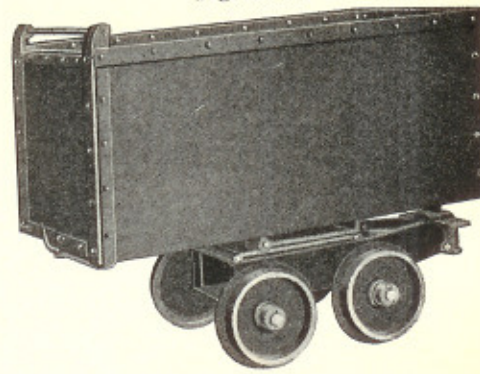
Special catalogue covering our complete line of Wolf Naphtha Safety Lamps and prices on application.

ELECT.

STANDARD ORE CARS

Standard ore cars are made of the very best materials and are designed for the most severe service. Regularly furnished with standard plain bearing wheels. Can also be furnished with either Hyatt roller, solid roller or self-oiling plain bearing wheels.

Fig. 203-A



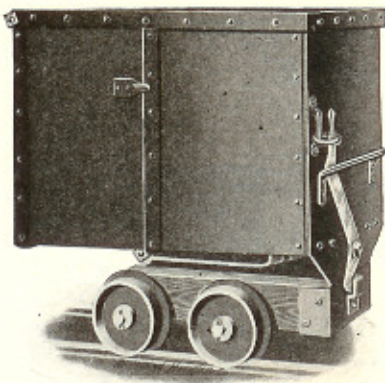
No.	Price, Each	Weight, Pounds	Size of Box			Thickness of Steel	Size Axle, Inches	Size Wheel, Inches	Capacity	
			Length, Inches	Width, Inches	Depth, Inches				Cubic Feet	Average Lbs. Ore
O0	\$ 49.00	250	40	22	19	No. 16	1 1/4	8	10	1,250
O1	60.00	375	44	24	20	No. 14	1 1/4	10	13	1,500
O2	69.00	440	44	24	20	No. 12	1 1/2	10	13	1,500
O3	80.00	512	48	24	20	No. 10	1 1/2	10	14	1,625
O4	91.00	600	48	24	20	3/8	1 1/2	10	14	1,625
O5	107.00	650	48	24	24	1/4	1 1/2	10	16	1,920
O6	131.00	700	48	30	24	1/4	1 1/2	10	20	2,400
O7	141.00	800	54	30	24	1/4	1 3/4	12	23	2,760

We are prepared to quote prices on any type or style of ore car upon receipt of specifications.

Correspondence solicited.

STANDARD CAGE CARS

Fig. 203-B

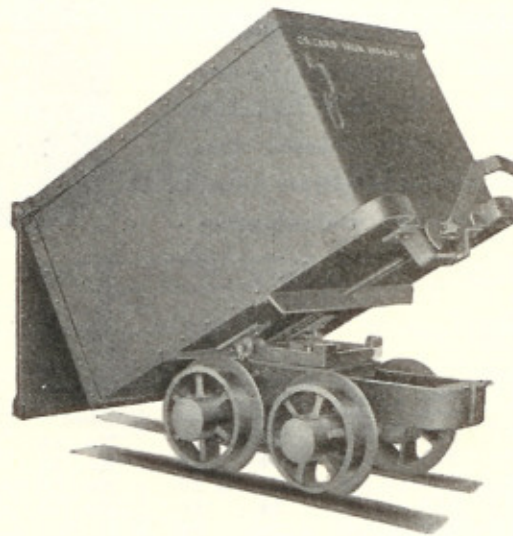


This car is made for the most severe service. The body is of plate steel and all forgings of the best quality of iron and steel. Regularly furnished with standard plain bearing wheels. Can also be had with either Hyatt roller, solid roller or self-oiling plain bearing wheels.

No.	Price, Each	Weight, Pounds	Thickness of Steel		Size of Box, Inches			Size Axle, Inches	Size Wheel, Inches	Capacity, Cubic Feet
			Sides	Bottoms	Length	Width	Depth			
C1	\$110.00	650	No. 10	3/8	42	24	24	1 1/2	10	14
C2	128.00	750	3/8	1/4	42	24	24	1 1/2	10	14
C3	139.00	800	No. 10	3/8	48	24	24	1 1/2	10	16
C4	147.00	850	3/8	1/4	48	24	24	1 1/2	10	16
C5	156.00	900	3/8	1/4	48	30	24	1 3/4	10	20
C6	165.00	950	3/8	1/4	54	30	24	1 3/4	12	22
C7	183.00	1,200	1/4	1/4	54	30	30	2	12	28
C8	229.00	1,400	1/4	1/4	60	30	30	2	12	32

AUTOMATIC DUMP ORE CARS

Fig. 204-A



The body is well braced and riveted and nicely balanced on the truck frame. Two angles are used to reinforce the bottom. Cars of 20 cubic foot capacity and larger are regularly furnished with one reinforcing strap or band in the center of the body. Bumpers, which are used as handles when dumping, are located at the strongest part of the body. The door has a reinforcing strap at the bottom, so that it is well protected when cars come together. The door rod at the rear is forged down and bolted to the handle, so the bolt is in shear. A strong construction and one easily and cheaply renewed. The turntable is cast iron with a grease-lubricated machined groove, which takes most of the load off the king pin, in turning, and is dirt proof. The truck frame is in one piece without riveted corners to work loose or cause trouble. It is held rigid at the top by the turntable and at the bottom by the truck. Type "Z" cars are regularly equipped with the Standard Roller Bearing Truck. When used in heavy trains, they can be specially equipped with Spring Drawbar Truck. For lighter haulage in trains these cars may be equipped with a solid drawbar with chain and hook. Coupling chains and hooks on the side of the body can be furnished. Where possible, we recommend taking the pull on the truck rather than on the body or frame. Brakes may be attached to any standard "Z" type car. Unless otherwise specified, 18-inch gauge cars will be furnished.

No.	Price, Each	Weight, Pounds	Capacity, Cubic Feet	Size of Box			Bottom, Inches	Thickness Steel	Size Axle, Inches	Size Wheel, Inches
				Length, Inches	Width, Inches	Depth, Inches		Sides and Door, Ga. Ins.		
TRACK GAUGE, 18 INCHES										
Z-12	\$ 73.00	630	11.7	42	24	20	$\frac{3}{16}$	No. 10	1½	10
Z-14	76.00	660	14.0	42	24	24	$\frac{3}{16}$	No. 10	1½	10
Z-16	81.75	730	15.9	44	26	24	$\frac{3}{16}$	No. 10	1¾	10
Z-18	86.50	780	18.3	44	30	24	$\frac{3}{16}$	No. 10	1¾	10
Z-20	99.00	1,005	20.0	48	30	24	$\frac{1}{4}$	No. 10	2	12
Z-22	105.50	1,075	22.5	54	30	24	$\frac{1}{4}$	$\frac{3}{16}$	2	12
Z-24	111.50	1,150	24.4	54	30	26	$\frac{1}{4}$	$\frac{3}{16}$	2¼	12
Z-28	115.25	1,200	28.1	54	30	30	$\frac{1}{4}$	$\frac{3}{16}$	2¼	12
TRACK GAUGE, 24 INCHES										
Z-12	\$ 77.50	670	11.7	42	24	20	$\frac{3}{16}$	No. 10	1½	10
Z-14	80.50	700	14.0	42	24	24	$\frac{3}{16}$	No. 10	1½	10
Z-16	88.25	790	15.9	44	26	24	$\frac{3}{16}$	No. 10	1¾	10
Z-18	93.00	840	18.3	44	30	24	$\frac{3}{16}$	No. 10	1¾	10
Z-20	105.75	1,075	20.0	48	30	24	$\frac{1}{4}$	No. 10	2	12
Z-22	112.25	1,145	22.5	54	30	24	$\frac{1}{4}$	$\frac{3}{16}$	2	12
Z-24	119.00	1,230	24.4	54	30	26	$\frac{1}{4}$	$\frac{3}{16}$	2¼	12
Z-28	122.75	1,280	28.1	54	30	30	$\frac{1}{4}$	$\frac{3}{16}$	2¼	12

ROCKER DUMP CARS

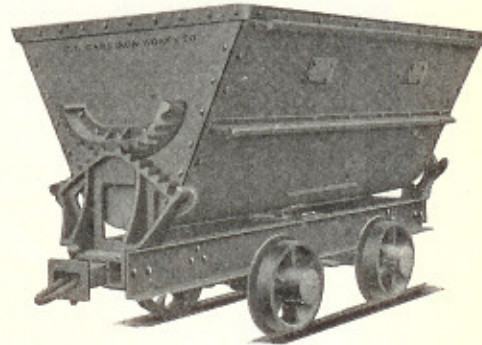
The car dumps and is righted easily. As it dumps to either side, it can be made into trains more readily than a one-way side dump car.

The body is well riveted and braced and is carried on cast steel rockers and rocker pedestals. The rocker pedestals are tightly fitted and well riveted to the structural steel frame. Any thrusts of the body and load are carried against the pedestals close to the frame. The body is held at the bottom by a spring latch, which locks automatically. It is unlocked for dumping by a foot treadle attachment. Two locks operated by one treadle are used on larger cars.

Usually equipped with combination spring bumper and draw-head of cast steel, link and pin type coupling. Can be equipped with automatic couplers if desired, at slight increase in cost.

Cars are regularly equipped with Standard Roller Bearing Truck.

Fig. 205-A

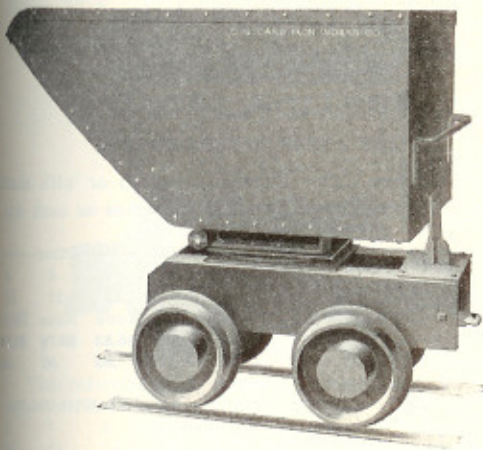


Capacity, Cubic Feet	Weight, Pounds	Thickness of Steel—		Length	Inches Size of Body			Axle	Wheel
		Ends	Sides		Width	Depth			
TRACK GAUGE, 18 INCHES									
18.....	1,220	3/4	3/16	48	32	27	2	12	
20.....	1,250	3/4	3/16	44	38	33	2	12	
27.....	1,500	3/4	3/16	60	38	30	2 1/4	14	
38.....	1,800	3/4	3/16	72	39	33 1/2	2 1/2	14	
44.....	1,950	3/4	3/16	84	39	33 1/2	2 1/2	14	
TRACK GAUGE, 24 INCHES									
24.....	1,600	3/4	3/4	60	37	26 3/4	2 1/4	12	
30.....	1,850	3/4	3/4	60	40	31 1/2	2 1/4	14	
36.....	1,950	3/4	3/4	72	40	31 1/2	2 1/2	14	
40.....	2,000	3/4	3/4	72	48	31 1/2	2 1/2	14	
47.....	2,150	3/4	3/4	84	48	31 1/2	2 1/2	14	

Prices and complete information on request.

SCOOP CARS

Fig. 205-B



This is the familiar scoop car used by mines, industrial plants and contractors. It can be used to advantage in handling wet materials, such as concrete.

The body is mounted on a turntable, allowing the car to be dumped at the end or either side. It is locked by a treadle catch at the rear end. The truck frame is steel securely braced. This design can also be furnished without turntable, to dump forward only. If the sizes listed do not fill your requirements, they can be built special to suit. Regularly equipped with Standard Roller Bearing Truck. 18-inch gauge unless otherwise specified.

No.	Price, Each	Weight, Pounds	Thickness of Steel—		Length	Inches Size of Body			Axle	Wheel	Capacity, Cubic Feet
			Sides	Bottoms		Width	Depth				
K-12	\$67.00	535	No. 10	3/16	48	24	21	1 1/2	10	12	

INCLINE CARS

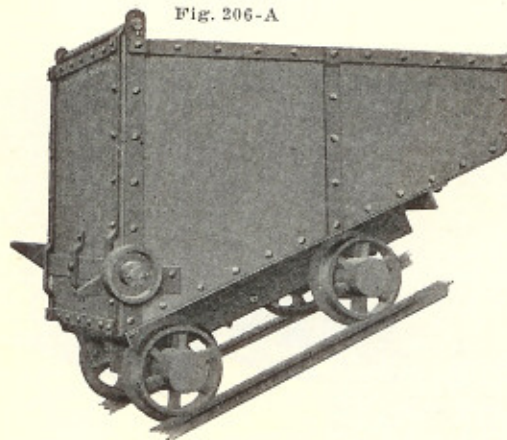


Fig. 206-A

A popular car for handling materials on inclines, usually surface inclines. Note that the door on the car shown is automatically opened by the roller and lever at the dump point.

These cars are built on special order and we can meet your requirements if furnished complete information of operating conditions. Also advise the incline on which the car will operate.

FLAT TOP OR PLATFORM CARS

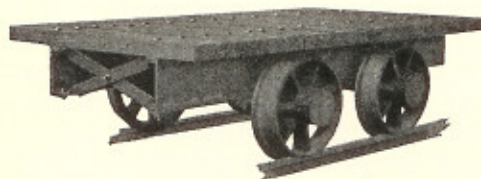


Fig. 206-B

The uses to which a car of this style can be put are unlimited.

They are furnished, regularly with an oak top mounted on structural steel frame, but can be built with steel top if conditions demand. Can also be furnished with cast steel spring drawbars and bumpers for use in trains, if desired.

Regularly equipped with Standard Roller Bearing Truck.

LIGHT DUTY CAR—1½-INCH OAK TOP

Track Gauge, Inches	Platform, Inches		Diameter, Inches		Price, Each	Weight, Pounds
Inches	Width	Length	Wheel	Axle		
18	32	60	12	1¾	\$56.00	567
24	36	60	12	1¾	57.00	594
30	42	72	12	1¾	59.00	677
36	48	72	12	1¾	60.00	713

HEAVY DUTY CAR—3-INCH OAK TOP

18	32	60	14	2¼	\$66.00	830
24	36	60	14	2¼	67.00	875
30	42	72	14	2¼	69.00	1,008
36	48	72	14	2¼	70.00	1,073

BOILER ROOM WAGONS

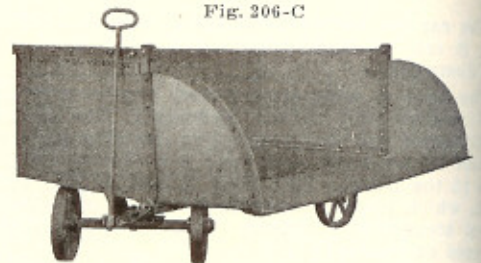


Fig. 206-C

Usually used for handling coal to the boilers, but has other uses. With the door dropped, the construction is very clearly shown by the cut.

Regularly equipped with flat tread, plain bearing wheels, for use without track. Can be equipped with regular car trucks with flanged wheels, either plain or roller bearing, for use on steel rail tracks, at additional cost.

Capacity, Cu. Ft.	Price, Each	Weight, Lbs.	Inches						
			Thickness Sides	Steel Bot.	Size Body			Axle	Wheel
			No.	toms	Length	Width	Depth		
24	\$ 95.00	655	10	¾	48	36	24	1½	14
30	100.00	715	10	¾	60	36	24	1½	14
36	105.00	775	10	¾	72	36	24	1½	14

WOOD ROLLERS



Fig. 206-D

PLAIN



Fig. 206-E

WITH SHAFT

Turned from oak. Furnished plain or with shaft running through and extending 3 inches on each end.

	Plate			
	Inches	3	4	6
Approx. outside diameter.....				
Standard length of roller.....	"	12	12	12
Shaft diameter	"	None	None	None
Roller only.....	Price, each	\$0.53	\$0.70	\$1.22
Add or subtract for each in. of length		.05	.07	.12

	With Shaft			
	Inches	3	4	6
Approx. outside diameter.....				
Standard length of roller.....	"	12	12	12
Shaft diameter	"	¾	¾	1
Roller only	Price, each	\$0.92	\$1.10	\$1.93
Add or subtract from each in. of length		.08	.10	.17
Boxes.....	Price, per pair	1.16	1.66	1.66