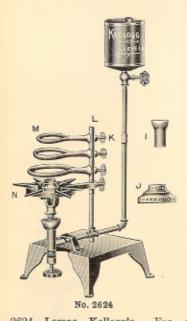
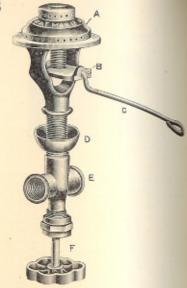
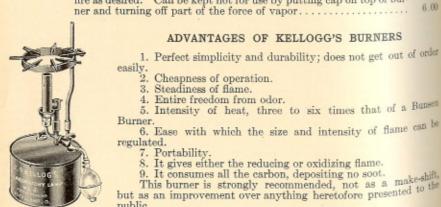
LAMPS





2624 Lamps, Kellogg's. For gasoline. Indispensable where a Bursen Burner flame is required and no gas available. It gives as much heat as several Bursen Burners, and is better than alcohol lamps. There is no smell, as the gas is consumed as soon as produced, no wick necessary. Complete, as per engraving. \$12.00 2626 Burner only, for above lamp. 7.50
2628 Lamps, Kellogg's New Vapor Lamp. Can be used in sets of two or 2630 Lamps, Kellogg's Gasoline Laboratory Lamp No. 2. This lamp gives a pure blue flame and intense heat. Can be easily and instantly reg-

ulated at will. The slide grate allows articles to be placed as near fire as desired. Can be kept hot for use by putting cap on top of bur-



No. 2630

ADVANTAGES OF KELLOGG'S BURNERS

- 1. Perfect simplicity and durability; does not get out of order easily.
 - Cheapness of operation.
 - 3. Steadiness of flame.
 - Entire freedom from odor.
- 5. Intensity of heat, three to six times that of a Bunsen
- 6. Ease with which the size and intensity of flame can be regulated.
 - 7. Portability.
 - 8. It gives either the reducing or oxidizing flame.
- 9. It consumes all the carbon, depositing no soot. This burner is strongly recommended, not as a make-shift, but as an improvement over anything heretofore presented to the public.

MILBURN LIGHTS

FOR CONTRACTORS, TUNNELS, MINERS, FOUNDRIES, ETC.



The Milburn Light is an improved gas light, generated from acetylene in so simple and perfect a manner that, to obtain same, it is merely necessary to turn on the tap and apply a light.

It adjusts itself immediately to any size flame, or any reasonable number of burners used, and requires absolutely no attention until burnt out.

The apparatus mainly comprises three parts. An outer tank holding water, and an mer receptacle holding the chemical, and a burner standpipe. The light closely reembles sunlight. It is fifteen times more powerful than coal gas, and is more penetraing and diffusive for the size of flame than any existing light.

- 332 50 Candle power, 10 hours. A most convenient hand light. Size, 6x12 inches; weight, 6½ pounds, each.....\$13.50
- 334 500 Candle power, for fire and salvage work. Extra powerful size 7x14
- 2536 5,000 to 12,000 candle power, lights 1500 feet. The light of these lamps closely resembles sunlight. Every part is water sealed, making them
- 338 12,000 Candle power, lights 3,000 feet. Same as No. 2636, only with twin cylinders, two storm-proof burners, and two non-tarnishing parabolic

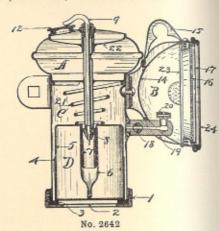
EXTRA CYLINDERS

340 Extra cylinder comprises set of trays, inner receptacle, and cover com-

ACETYLENE LAMPS

FOR ENGINEERS, SURVEYORS, MINERS, CAMPERS, ETC.





Acetylene lamps are cleaner, more convenient, and cheaper to operate than candles or oil lamps. Acetylene light resembles daylight and facilitates a more accurate examination of veins and ores, especially their color. Notebooks, etc., are not soiled by grease nor the air polluted by smoke—in fact, less oxygen is consumed by acetylene lamps than by oil or candles. They will burn in places where candles and oil lamps go out.

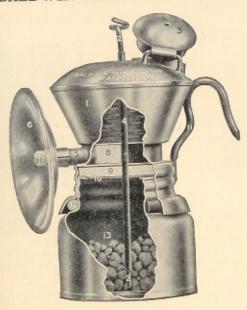
COLUMBIA AUTOMATIC ACETYLENE LAMPS

Ideal for mining engineers, superintendents, surveyors, campers, watchmen, bicyclists, etc. Made of heavy brass with gun metal finish and have double convex lense, fishtail or pencil burner (as desired), gas and water valves. Burn five hours on one charge. Enclosed and not affected by strong winds.

and not affected by strong winds.	60.50
1642 Bale Lamp, without Dark Lantern Shutter	\$5.00
Buggy or Bicycle, Bracket extra	.40
Buggy or Bicycle, Bracket extra. Watchman's Dark Lantern with Shutter, and without Colored Side	1 70
Lights	4.50
Watchman's Lamp, without Shutter and Side Lights	3.50

	EXTRA PARTS,	PRICE	ES P	OSTAGE PAID	
A	Lamp Body, Complete \$1	.80		Thumb Nut and Bolt	\$0.10
D.	Carbide Cup, Complete	.50	В.	Head, Complete	1.00
	Bottom Plate	.10		Bottom Cap	10
5.	Carbide Cup Body	.30		Rubber Gasket	30
9.	Water Valve	.15		Water Distributer	,10
	Reflector	.30	12.	Filler Cap	.10
16.	Double Convex Lens	.30	17.	Lens Retainer Wire	, 20
	Gas Valve Complete	.40		Gas Valve Stem, Screw and	25
	Extension Base Complete	.45	1200	Washer	17
20.	Burner—Pencil Flame	.17	21.	Spiral Spring	.28 .17 .40 .70
	Burner—Fishtail Flame	.25		Buggy Dash Bracket	.70
23.	Reflector Retainer Wire	.10		Hand Bracket	. 14
	Bicycle Bracket	.40		Bracket Extension, no Bolts	
TA	of Dear without Class on Retainer	Wino			.3
Fre	ont Door without Glass or Retainer	wire			.10
SCI	ew and Washer for Gas Valve			*********	

BALDWIN ACETYLENE LAMPS



DESCRIPTION OF THE BALDWIN MINE LAMP

We show herewith, a sectional view of the Baldwin Mine Lamp. While at first sight the many parts may lead you to believe that this lamp is rather complicated, a second observation will show that but few of these various parts have to do with the actual working of the lamp. The other parts are not subject to wear nor can they, in any manner, get out of order. There are no springs nor regulating devices to cause trouble. Anyone can successfully operate the Baldwin the first time they try.

Viewed as a whole, the lamp consists of four parts, a carbide container, a water-tank, burner and a wire agitator. A pipe or tube projects from the water-tank, into the carbide container. In this pipe there is a wire agitator. There is just enough free space between the wire agitator and the sides of the tube to permit the proper amount of water to get to the carbide. This wire is also used to free the tube from any stoppage or sediment which might collect in same. This is indicated by the flame burning low. A turn or two of this wire clears the tube and immediately the flame assumes its normal size and the lamp again burns brightly. Sudden jars or a fall will not injure the lamp or affect the light. It will burn perfectly, for a time, if laid on its side or even held in an inverted position.

The names of the various parts indicated by numbers above are given below.

2. 3. 4. 5.	Name Water-tank. Raking Wire. Cover of Water-Tank. Water-tube. Burner-tube. Reflector. Burner.	No. Name 8. Small Felt. 9. Large Felt. 10. Wire Gauze. 11. Hook. 12. Rubber Gasket. 13. Carbide Contains
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For prices and illustrations of repair parts, page 286.

BALDWIN ACETYLENE LAMPS

STYLE No. 31

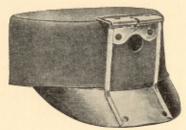






2644 Style No. 30. Give 14-18 candle power. Weight, 5 ounces, height, 33/4 inches. One extra carbide container with each lamp. \$1.00 While this lamp is fitted with a positive shut-off valve, it operates under the well-known "Baldwin" method, which insures a steady and uniform flame. It is the most substantial valve made, but we do not recommend valve lamps in low mines, as the first blow against the roof will put a valve lamp out of commission. Fitted with No. 2 Reflector when a concentrated light is desired. May be supplied with No. 1 Flat Reflector, if so specified. 2646 Style No. 31. Same as above, but without the positive shut-off valve, the regulation of the water being automatic. Fitted with cap-hook the same as Sunshine Oil Lamps. Each...... \$1.00 2648 Style No. 32. Same as No. 31, but with the regular cap-hook and steady braces. Fitted with No. 2 Reflectors. Each................... 1.00 2650 Style No. 33. Same as No. 32, but supplied with No. 1 Flat Reflector, which shields the flame from water dripping from the roof. Each... 1.00

If extra carbide containers are not wanted deduct \$0.15 from list price of lamp.



No. 2652

2652 Miner's Canvas Caps. For use with Nos. 30, 32 and 33 lamps. Size 63/8 to 71/4. Price each.

Write for circulars and quotations upon quantities.

BALDWIN ACETYLENE LAMPS



No. 2654



Nos. 2656-2658

HALF-SHIFT LAMPS

2654 Made of galvanized iron. Burns on	Weight	Height	Price Each
Style One Charge	Charged	Inches	\$1.25
No. 6 hours	11 oz.	6	
34 12 hours	15 oz.	61/2	1.25
Style One Charge 6 hours 12 hours One extra carbide container furnished	with each lamp.	Extra containers,	\$0.30 each.
2656 Style No. 36. Burns 6 ho	TENDENT'S L	sharms Weight	10 ounces.
2656 Style No. 36. Burns 6 ho	ours with one	charge. Weight,	a light over
2656 Style No. 36. Burns 6 ho Height, 6½ inches. Made of galvanized	iron. This lamp	will throw a stron	g nght over
Height, 072 menes. Made or gardinations es	sv One extra c	arbide container with	n each lamp.
Height, 6½ inches. Made of galvanized 50 feet. Makes overhead examinations ea	ay. One office		\$2.00
Extra carbide containers, each		1 1 lated	
Princ.			2.00
11106			



No. 2660 |STYLE 39

2660 The hook and chain will make it convenient to hang this lamp to rock, timber or candlestick. This lamp is easily carried when climbing ladders. Burns five hours on one charge.

Weight, 41/2 ounces. Height, 51/2 inches. One extra carbide container with each lamp.

Price			 					 		\$1.25
Extra carbide c	ontainers,	each.			 -		-			.20
Takette Commont	,									

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BALDWIN ACETYLENE LAMPS REPAIR PARTS





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M	Committee of the Commit
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G.	ASK	ET	FOR	LA	MPS	
Nos.	34,	35,	36,	38	and	39

GASKET FOR LAMPS Nos. 30, 31, 32 and 33

RAKING WIRE

Gaskets for Lamps, Nos. 34, 35, 36 38 and 39, per dozen	
Raking Wires for Nos 31 32 and 33 per dozen	.00
Raking Wires for Nos. 34, 35, 36, 38 and 39, per dozen.	.35









SCREEN	PELT	SMALL		BURNER
Screen, per dozen		 		\$0.25
Felt, per dozen		 		35
Felt, per dozen. Small Felt for Lamps Burners, per dozen. Burner Cleaners, per dozen.		 		20
Burner Cleaners, per dozen		 		35
Wire on Spools for Burner Cle	aners, each	 		10
REFLECTO	RS	CARBII	E CONTAI	NERS



No. 1









Six 8-Hour Shifts

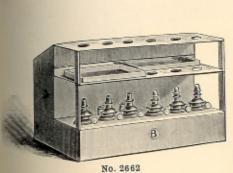
One 10-Hr. Shift

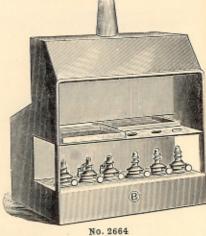
Reflectors, No.1, per dozen	0.20
Reflectors, No. 2, per dozen	2.40
Reflectors, No. 3, 3-inch diameter, per dozen	1.20
Reflectors, No. 4, 2-4-inch diameter, per dozen	2.40
Carbide Containers, capacity, six 8-hour shifts, or 1 lb. Carbide, per dozen	1.50
Carbide Containers, capacity, one 10-hour shift, or ½ lb. Carbide, per dozen Calcium Carbide, size ½-inch. 2-lb. cans (original case contains 20 cans).	Size

1/2-inch, 10-lb. cans (original case contains 6 cans). Size, 1-inch, 10-lb. cans (original case contains 6 cans). Size 1/4x¹/₄z-inch, 100-lb. drums. Size, 11/4x³/₈-inch, 100-lb. drums.

Prices on application.

LAMPS





2662 Lamps, Parting. By W. H. Leavens; for alcohol; galvanized iron, very strong; shelves for sand bath and annealing cups; upper shelf perforated for holding test tubes.

No. of burners	 6	8	12
No. of burners	62 00	3.50	4.50
Each	 00.00	0.00	

2664 Lamps, Parting. Same as above, except upper shelf is left out so as to use flasks instead of test tubes. Hood and pipe attached for carrying off flumes.

No, of burners	6	8	12
No. of burners	00 50	4.00	5.00
Each	99.00	4.00	0.00

2666 Lamp Wicks. For parting lamps......doz. \$0,10

LEAD MEASURES



No. 2668

2668 Lead	Measures.	Of improved	construction	for test	lead		,25
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Lead Foil. Chemically Pure. See Chemical List, page 495.

Lenses. See Magnifiers, pages 290, 291.