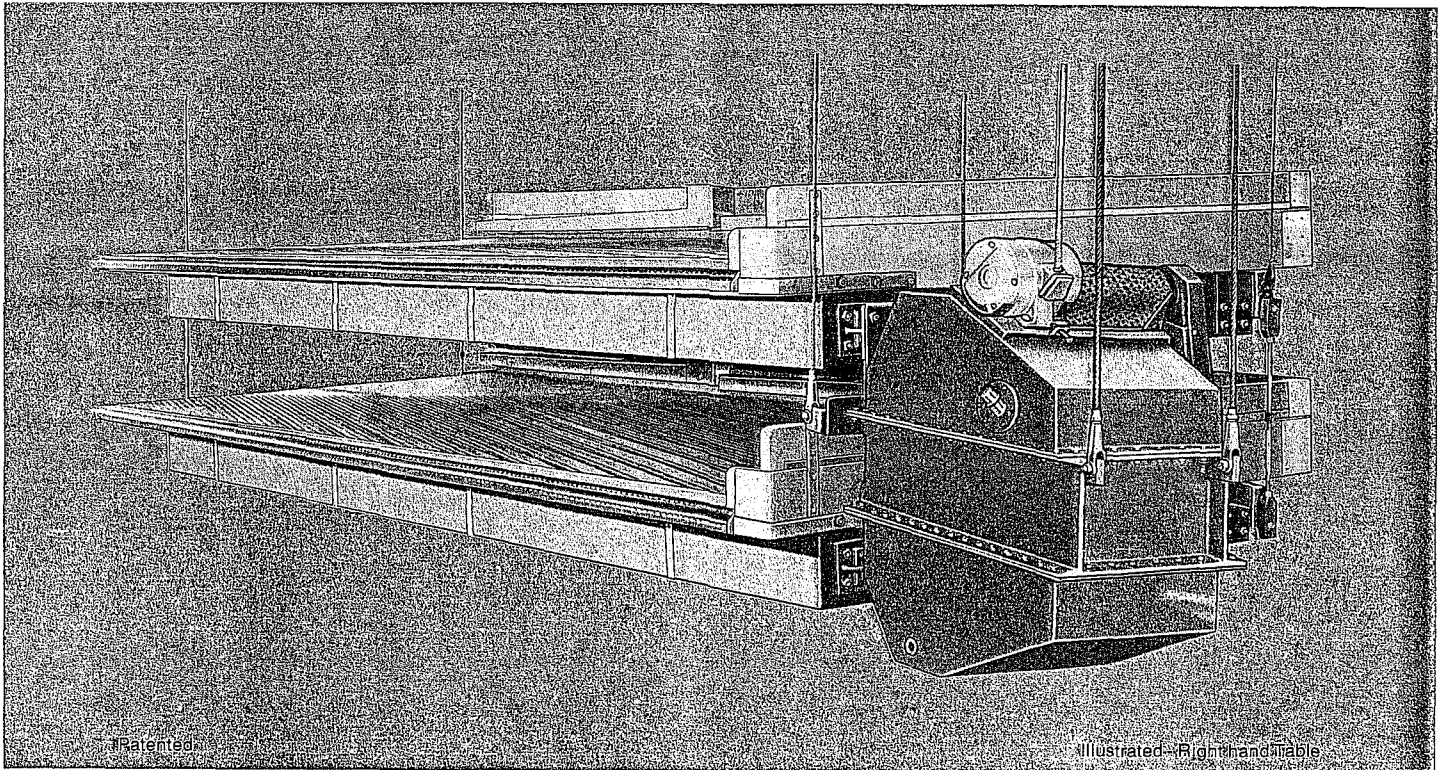
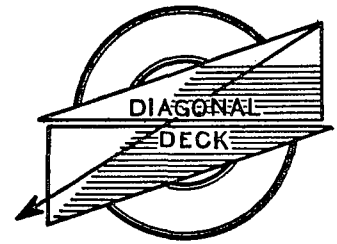


DEISTER "88"

Diagonal-Deck® Coal Washing Table

- Dependability
- Ruggedness
- Lower Operating Costs



Patented

Illustrated - Right hand table

DEISTER CONCENTRATOR

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A new concept in Double-Deck Tables

The Deister Concentrator Company has put three-quarters of a century of engineering and design experience into its new DEISTER "88" Diagonal-Deck Coal Washing Table. As a result, the new "88" is more rugged, more dependable, more versatile and more economical than any Deister table previously available.

The DEISTER "88" offers the ruggedness and dependability of the popular DEISTER "77" and its predecessor, the SuperDuty No. 7 Coal Washing Table... plus a lot of new features and benefits. In fact, the new "88" was designed to be interchangeable with "77" units and utilize the same supporting steel while requiring only minor alterations in existing refuse launders. Many parts are interchangeable between the two models — including the decks. When replacing single deck units, the "88" tables can be installed in 12" less ceiling height than was required for the "77" in most installations.

Product Quality and Versatility

The DEISTER "88" cleans effectively down to 100 mesh and finer... and removes free pyritic sulfur 270 mesh and finer with high efficiency. The "88" is one of the most efficient means available for removing free pyritic sulfur from fine coal. A wider range of particle sizes are effectively handled than by other processes. On a 3/8" x 100 mesh, the size ratio is over 65:1. Organic cleaning efficiencies of 98.5 to 99.7% are routinely obtained.

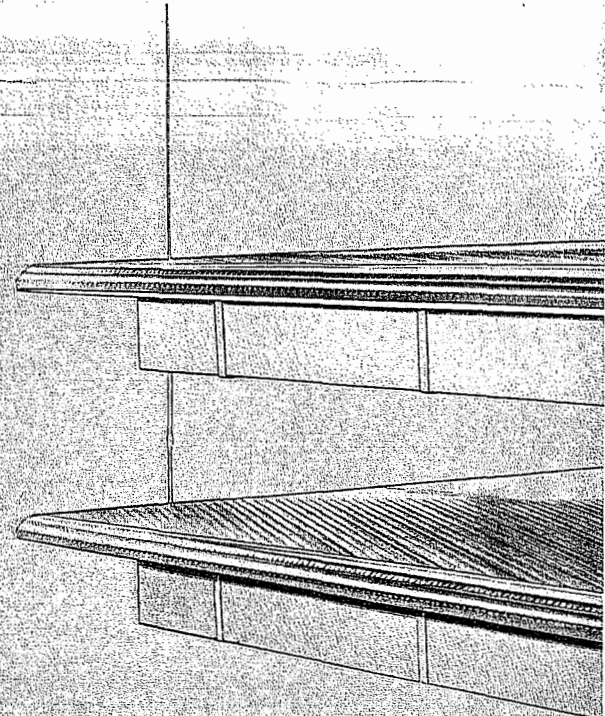
Higher-Value Product

Since the tables gently flow the feed across the deck surfaces abrading and grinding action which could lead to ultra fines of lower economic value are eliminated.

Economical Operation

- Low power consumption — Requires less than 3 hp for operation.
- Low maintenance — Fewer moving parts, heavy-duty construction, quality components.
- Minimum attendance — Once adjusted, tables require no constant readjustment to maintain optimum performance. One operator can handle all of the tables in a large plant with time left over to attend to other functions.

- Lower water-to-solids ratio — The "88" has a water-to-solids ratio of only 2:1 as compared to as much as 8:1 for some other processes. This reduces the cost of pumping and water clarification facilities as such as thickeners.
- No "heavy media" — The "88" uses only water. There are no media losses to add to the operating costs.



Easy, Compact Installation

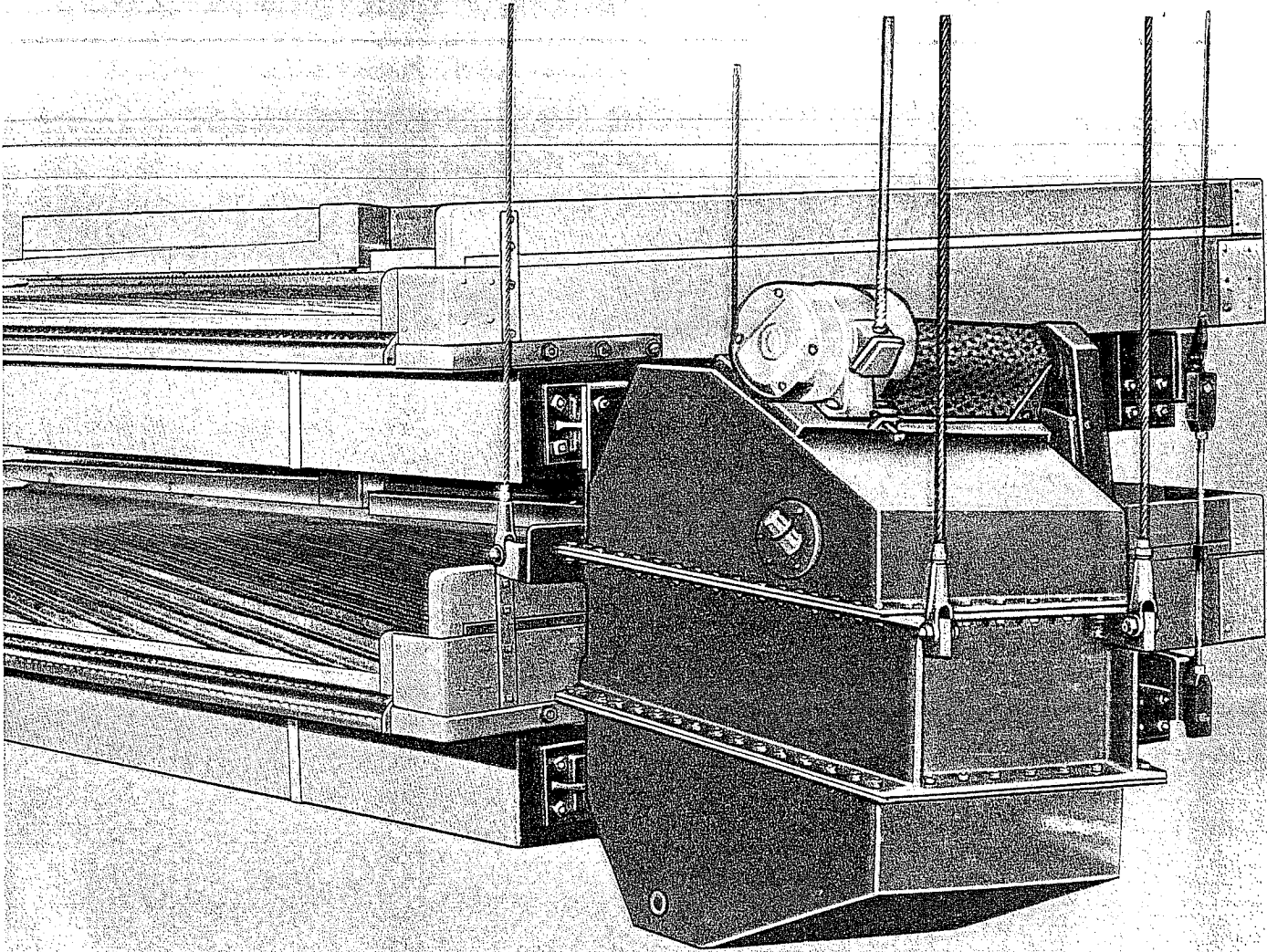
The "88" suspends on wire ropes for free-floating operation without impact to the supporting structure. A conventional installation of a two-deck table requires only 8' ceiling height; vertical paired installation (four-deck stack hung from the same overhead steel) requires only 13'4" ceiling height.

Range of Uses

The "88" cleans either bituminous or anthracite coals with high efficiency.

1. Suspension The entire "88" unit is suspended on wire ropes from overhead steel and connected to a driving mechanism that generates its own accelerating and decelerating forces eliminating the transfer of impact or shock to the building structure. The twin-deck assembly and attached motion suspend from seven wire ropes, supported on knife edges for flex-free operation. Five 1/2" diameter wire ropes support the main weight of the unit, while two 3/8" ropes at the feed and middling corners are part of the synchronized tilting mechanism for controlling table-side tilt.

2. Adjustment Longitudinal inclination adjustment (end elevation) is easily made by means of a single turnbuckle in the refuse and supporting rope. A heavy ball-and-socket joint in the swivel connectors between the motion and deck assemblies permits adjusting deck inclination, both laterally and longitudinally, without disturbing the horizontal operation of the driving mechanism.



3. Deck The table decks offer lightweight plus durability and high strength. The decks are resistant to warpage. The finest grades of California redwood lumber and waterproof plywood are utilized in construction. Decks are normally covered with DEISTER black rubber covers and cemented on rubber riffles having a normal life expectancy of 10 years or more. These ultra-smooth rubber covers add to the efficiency of separation of the finest size particles such as ultra-fine pyrite and high gravity particles that cannot be handled by rougher-surfaced covering materials.

Each deck is firmly bolted to and supported by a sturdy structural steel subframe of deep channel and I-beam construction for extra strength and rigidity.

4. Headmotion The DEISTER "88" motion incorporates gear-driven eccentric weights which can be varied as required. The "88" motion has been simplified and incorporates fewer parts. The headmotion used in the "88" is the quietest and smoothest operating motion ever offered by Deister. Since the motor, V-belt drive and guards are all mounted on the motion and reciprocate with it during operation, installation is simplified.

Capacity and Performance

Table capacity varies with the size consist, the percentage of reject contained in the feed, and the washability of the table feed. Coarser feeds handle at higher rates than do finer feeds; feed rates will be limited by the percentage of reject above 25%. As the difficulty of cleaning decreases, feed rates can be increased. The majority of all installation in bituminous coal are on 3/8" x 0, or 1/4" x 0 or deslimed fractions of same top size where — on coals of normal washing characteristics — capacity per double-deck table is 25 TPH feed (i.e., 12-1/2 TPH per deck). For 3/4" or 1/2" top size (commonly handled when cleaning steam fuels) capacity of 30 TPH per Twin-deck table can be expected.

When handling feeds where not more than 10% lies in the specific gravity range $\pm .10$ point from the separating gravity, the DEISTER "88" Table will deliver a minimum organic cleaning efficiency of 98%; organic cleaning efficiency being defined as the ratio of the actual yield to the theoretical yield at the separating gravity. On many coals, tables produce cleaning efficiencies well above 99%.

Of major importance to producers of metallurgical or steam coal, is that tables are recognized by most authorities as the most effective apparatus currently available for removing free pyritic sulfur from the feed they handle. When handling 3/8" or 1/4" top size, the DEISTER "88" Table will efficiently remove free pyrite particles to 270 mesh and finer; on 3/4" or 1/2" top sized feed, pyrite as fine as 200 mesh will be removed.

Deister will help you select the right equipment for your product

Deister engineers will be glad to discuss your needs. We can provide an accurate projection of table capacity and performance based upon an analysis of washability and size consist data collected from your operation. Call us today.

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Manufacturers of
Deister Ore Concentrating
and Coal Washing Tables
Revolving Feed Distributors
Hydraulic Classifiers

Heavy Duty Vibrating Screens
FlexElex* Electric Screen Heaters
Feeders
SuperScalpers
Flotaire* Flotation Cell