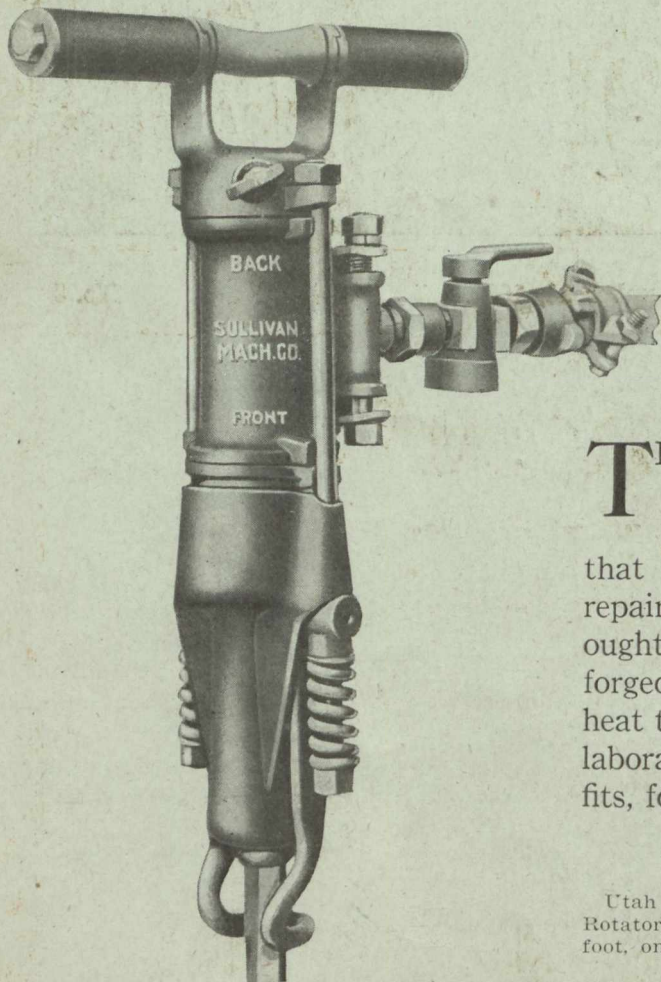


# STURDINESS



*a large element in*  
**ROTATOR**  
*economy*

**T**HE ability to take hard knocks as well as to give them, is possessed by Rotators in a high degree, which is one way of saying that Rotators show unusually low costs for repairs under nearly all conditions. They ought to, because they are built from drop forged steel billets and solid alloy steel bars, heat treated by processes developed in Sullivan laboratories and ground to the closest working fits, for air economy and drilling speed.

**S. C. Head Drove 600 ft., Repairs, \$9.00.**

Utah Silver-Lead Mines drove 600 feet in hard ground with Rotators. Repairs on Rotators were \$9.00. Repair cost per foot, one and one half cents per foot ( $\neq$ 0.015).

**S. C. Head 175 feet of Drift, no Repairs.**

One DP-33 water drill on cradle mounting drove 175 ft. of 5 x 7 heading in very hard diorite for Sullivan, McQuarrie & Clark, contractors, on the So. Pacific Gold & Copper Co. 9dit, north of Ogden, Utah, without being taken out of the heading during the entire distance and was never taken apart.

**S. C. Head Low Costs from Arizona.**

At a well known Arizona copper mine, Rotators have cost \$6.53 per quarter year per drill for repairs, based on 67,467 drill days of use. Based on 5994 drill days during the last quarter, the cost has been \$1.28 per drill.

**If you need fast, sturdy  
Hammer Drills, specify  
ROTATORS**

**Bulletins 670-J**

**SULLIVAN MACHINERY COMPANY**  
**122 SOUTH MICHIGAN AVE., CHICAGO, ILLINOIS U.S.A.**

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**FOREIGN SALES OFFICES:**

Algiers, Brussels, Calcutta, Christiania, Durban, Natal, Havana, Lima, London, Madrid, Mexico City, Paris, San Juan, Santiago, Shanghai, Sydney, N. S. W., Tokyo, Toronto, Tunis, Turin, Vancouver.



**SULLIVAN PRODUCTS**

Air Compressors; Air Lift Pumps; Diamond Drills; All-Hammer Drill Sharpeners; Drill Steel Furnaces; Forge Hammers; Ironclad Coal Cutters; Rock and Hammer Drills; Quarrying Machinery; Contractors for Diamond Core Drilling.