

(24) J. F. asks: If I condense ten volumes of atmospheric air into one volume, and cool it, say, to 40°.

(25) E. M. F. writes: I wish to have some metallic cylinders cast, about 10 inches long, 2 1/4 inches in diameter, and 1/8 inch thick. Lead is too soft. What cheap metal can be moulded as thin and be moderately strong?

COMMUNICATIONS RECEIVED. The Editor of the SCIENTIFIC AMERICAN acknowledges with much pleasure the receipt of original papers and contributions on the following subjects: Locomotive Strokes. By W. G. Protection against Torpedoes. By F. P.

INDEX OF INVENTIONS FOR WHICH Letters Patent of the United States were Granted in the Week Ending March 19, 1878, AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.] A complete copy of any patent in the annexed list, including both the specifications and drawings, will be furnished from this office for one dollar.

- Alloy, bronze, E. C. Kirk 201,586
Amalgamator, L. M. Boardman 201,321
Animal trap, J. McMahon 201,546
Ashes, separating breeze from, J. Coyne 201,390

- Engine, rotary, L. Van Doren 201,574
Engine, rotary steam, A. Stegrist 201,456
Engine, wind, Croft, Sr., & Croft, Jr. 201,384
Fare box, M. M. Moore 201,437

- Screw driver, J. B. West 201,372
Seeding machine, Westcott & Halteman 201,578
Sewer gas trap, F. E. Cudell 201,891
Sewer pipe sockets, A. F. Foster 201,842



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