boat for this engine and boiler, say 8 or 10 feet longer, do you think I would get more speed? What dimensions would you recommend a boat to be to get the most speed out of my engine and boiler? A. It is somewhat questionable whether you will be able to make much improvement on the present performance with another boat and the same machinery. With a larger screw and the present boat you might do somewhat better.

COMMUNICATIONS RECEIVED.

The Editor of the SCIENTIFIC AMERICAN acknowledges with much pleasure the receipt of original papers and contributions on the following subjects:

The Telephone. By S. F. P.

The Microphone. By W. L. S.

The Gyroscope as applied to Vessels. By R. L.

HINTS TO CORRESPONDENTS.

We renew our request that correspondents, in referring to former answers or articles, will be kind enough to name the date of the paper and the page, or the number of the question.

Many of our correspondents make inquiries which cannot properly be answered in these columns. Such inquiries, if signed by initials only, are liable to be cast into the waste basket.

Persons desiring special information which is purely of a personal character, and not of general interest, should remit from $1 to $5, according to the subject, as we cannot be expected to spend time and labor to obtain such information without remuneration.

[OFFICIAL.]

INDEX OF INVENTIONS

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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. In ordering please state the number and date of the patent desired, and remit to Munn & Co., 37 Park Row, New York city.

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Barrel machinery.—Frederick Blount, ——.
Boots and shoes.—J. W. Hatch *et al.*, Rochester, N. Y.
Belt lacing.—M. Jewell, Hartford, Conn.
Buildings.—T. Hyatt, N. Y. city.
Chairs.—L. Haywood *et al.*, Baldwinsville, Mass.
Cotton machinery.—R. Kitson, Lowell, Mass.
Journal lubricator.—S. Norris, N. Y. city.
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Lock bolts.—V. L'Eplattinaire, N. Y. city.
Pulleys.—Providence Tool Company, Providence, R. I.
Solar cameras.—J. Thom, Carrolton, La.