

(Model.)

J. McCORMICK.

TOBOGGAN.

No. 342,215.

Patented May 18, 1886.

FIG. 1.

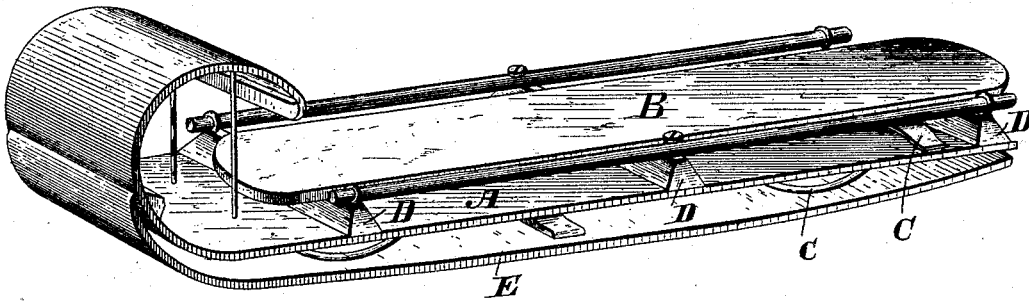


FIG. 2.

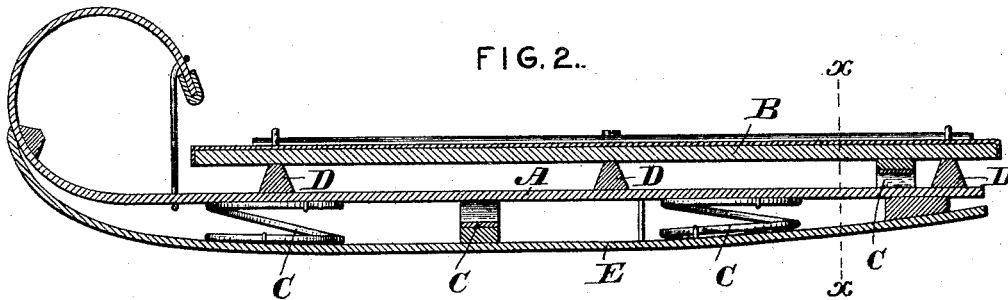


FIG. 3.

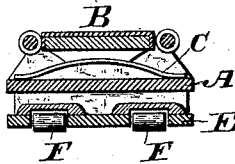
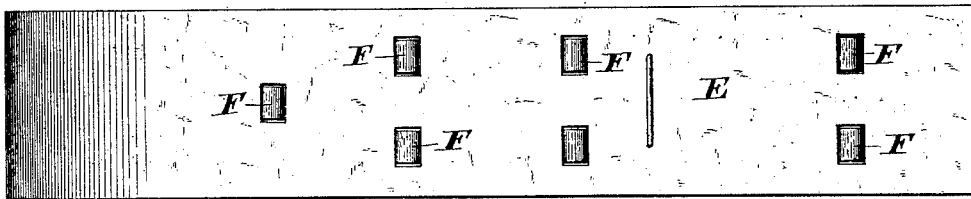


FIG. 4.



ATTEST.

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TOBOGGAN.

SPECIFICATION forming part of Letters Patent No. 342,215, dated May 18, 1886.

Application filed March 13, 1886. Serial No. 195,101. (Model.)

To all whom it may concern:

Be it known that I, JAMES McCORMICK, of Potsdam, St. Lawrence county, New York, have invented a new and useful Improvement in Roller and Spring Toboggans; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, in which like letters of reference represent like parts, and in which—

Figure 1 is a perspective view of a toboggan having my improvements. Fig. 2 is a longitudinal section. Fig. 3 is a cross-section on line *xx* of Fig. 2; and Fig. 4, an under plan view of the runner, showing the anti-frictional rollers.

The ordinary toboggan, as is well known, consists of a single flat broad runner upturned at the front end, being generally provided with a slightly-raised deck or seat portion having cushions and longitudinal hand-rail upon each side. Moving at the great velocity which it is desirable to secure, the toboggan, as thus constructed, when passing over any uneven surface, is liable not only to unseat the rider, but to injuriously jolt and jar him, being thus the frequent cause of serious accident, as well as permanent injury to the health of those partaking in the otherwise healthful sport of tobogganing.

To overcome this defect is the design of my invention; and to this end I have devised a spring or series of springs, by or upon which I support the seat portion of the toboggan. This device I find in use not only secures the primary object of my invention, diminishing effectually the liability to jolting and jarring, but also secures an additional advantage, in that the actual distance covered by a toboggan provided with a spring-runner is increased over that covered by the rigid and unyielding toboggan, the original momentum of each being the same.

In carrying out my improvement I provide between the ordinary runner or toboggan-bottom, A, and the raised seat portion B a spring or series of springs, C. The spring may be of the ordinary elliptic leaf or spiral form firmly secured to the two parts. There may be a single spring secured between the seat portion and the runner, as shown in Figs. 1, 2, and 3, near the rear end of the toboggan, the

front portion of the seat being carried or supported upon the bolsters D, firmly secured to the runner; or, the parts being made of highly-flexible materials, a positive spring may be dispensed with, and the spring action be secured by the two projecting independent ends of the runner and the seat portion, respectively, disconnected by the bolsters, securing their forward ends and central sections firmly together. Preferably, however, I make the toboggan of the ordinary construction, of light but strong wood, and secure very firmly beneath the runner a supplemental runner, E, of curved or bowed form, having its greatest swell or arc centrally located between the toboggan-bottom proper and to this supplemental runner I secure a series of springs of any form preferred. A plurality of compact rubber cushions or disks have been found to secure excellent results.

I have found my improved toboggan to do its best work when made in the form illustrated in Fig. 2—that is to say, when the seat portion of the toboggan is firmly secured to the runner by means of forward bolsters, D, and supported at the rear by a spring, C, while underneath the entire toboggan thus made is secured the supplemental spring-supported or yielding shoe or runner E. This construction gives perfect elasticity of movement to the toboggan, reduces to a minimum the objectionable jar and vibration incident to its rapid passage over obstacles in its path, and prolongs the original momentum to a very marked degree.

It is manifest that the supplemental runner hereinbefore described, if made of elastic or spring material—such as many of the varieties of wood employed in the manufacture of toboggans—and firmly secured to the bottom of the toboggan in the arched or bent form shown, would in itself afford quite a sufficient spring to avoid the objections and secure the advantages I have pointed out.

To adapt the toboggan for use upon inclined surfaces not in themselves highly anti-frictional, I have given the runner a series of anti-frictional rollers, F, mounted within recessed plates, preferably made of metal. These rollers project slightly from the under surface of the runner through suitable openings made therein, as shown clearly in Figs. 3 and 4.

These rollers may be made of any material, but I have found them made of lignum-vitae to secure best results.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A toboggan provided with a supplemental spring-runner, as set forth, whereby the jars and jolts incident to rapid passage over an uneven surface are diminished.

2. The combination of the toboggan-runner, its seat portion, and a spring or a series of springs, whereby the shocks and concussions received in a rapid passage over an uneven surface are obviated or diminished.

3. The combination, in a toboggan, of the seat portion B, the runner A, the supplemental runner E, and spring C, as set forth.

4. The combination, with the main runner of a toboggan, of the seat portion secured firmly thereto by forward bolsters, D, and supported upon the said main runner at the rear end by springs C, as set forth.

5. The combination, with the main runner of a toboggan, the seat portion secured rigidly thereto upon forward bolsters, D, and supported thereupon at the rear end by spring C, of the supplemental spring-runner E, as set forth.

6. The toboggan herein described, provided with a supplemental spring-runner having a plurality of anti-frictional rollers, as set forth.

JAMES McCORMICK.

Witnesses:

GEORGE W. FIELD,
GEORGE M. RUSSELL.