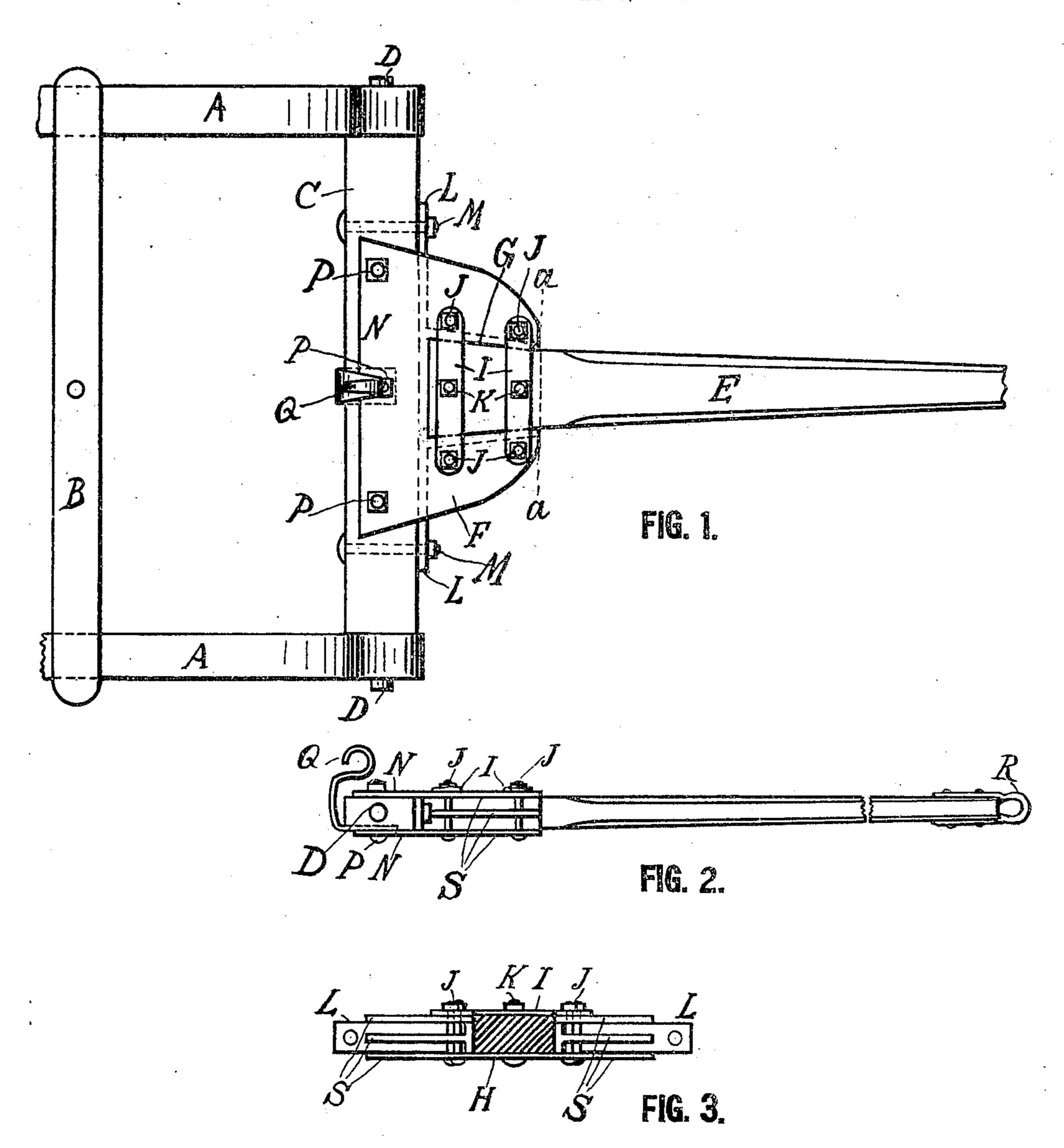
## A. SWANSON. LOGGING SLED. APPLICATION FILED MAY 13, 1905.



WITNESSES: D. E. Carken. J. E. Carlson. INVENTOR: Andrew Gwanson BY his ATTORNEY. AM. Carlsen.

## UNITED STATES PATENT OFFICE.

ANDREW SWANSON, OF ST. FRANCIS, MINNESOTA.

## LOGGING-SLED.

No. 812,310.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, Andrew Swanson, a citizen of the United States, residing at St. Francis, in the county of Anoka and State of 5 Minnesota, have invented certain new and useful Improvements in Logging-Sleds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in logging-sleds, and has for its object the providing of strong and durable connection of the tongue or pole of the sled to the so-called "roller" of the sled. This object I attain by the construction hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of a pole and forward end of a logging-sled connected together by my improved means. Fig. 2 is a side view of the pole and roller removed from the sled. Fig. 3 is a sectional front view on the line a a in Fig. 1.

Referring to the drawings by letters of ref-30 erence, A designates the front runners, and B the bolster of a heavy logging-sled, which when loaded is drawn by four to ten horses and is then so heavy to pull and steer that the pole will often work or break loose from 35 the sled.

C is the roller, journaled at D in the forward ends of the runners. To the roller I secure the pole E by means of a steel or malleable casting F. This casting is formed 40 with a forwardly-tapering socket G, in which the pole is snugly fitted, resting upon the bottom plate H of the socket and retained by wrought-iron straps I and bolts J through the ends of same and by the bolts K through the 45 middle of the straps and through the bottom plate, said middle bolts passing also through the pole. The rearward part of the casting is provided with vertical ears L, secured by the bolts M to the front side of the roller, and 50 with flanges or wings N, fitting snugly against the upper and lower side of the roller, and are secured thereto by the bolts P.

Q is the regular draft-hook inserted with its flat shank into the lower side of the roller, as shown in dotted line in Fig. 2, and secured on the middle one of the bolts P.

In using the sled the regular horses or other draft-animals are hitched to the hook Q; but the extra animals usually required are mostly hitched to the eye or hook R at the 60 front end of the pole. In pulling and steering the pole will gradually wear loose on the bolts K and partly in the socket G; but the latter being tapered the pole will tighten itself therein as it advances forward. This 65 being quite hard on the socket, the latter is not only made strong by its bottom plate H, but also by several reinforcing-ribs S at its sides.

Having thus described the invention, what 70 I claim, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, a steel or malleable casting having the horizontal flanges N with bolt-holes adapting 75 said flanges to be bolted to the upper and lower side of the roller of a logging-sled, the vertical side flanges L securable to the front side of the roller, the tapering socket G for the pole, the integral bottom H and the 80 straps I to keep the pole in the socket, and bolts applied substantially as and for the purpose set forth.

2. As an improved article of manufacture, a steel or malleable casting having the hori- 85 zontal flanges N with bolt - holes adapting said flanges to be bolted to the upper and lower side of the roller of a logging-sled, the vertical side flanges L securable to the front side of the roller, the tapering socket G for 90 the pole, the integral bottom H and the straps I to keep the pole in the socket, the reinforcing side ribs S, and bolts applied substantially as shown and described.

3. The combination with the pole and roller 95 of a logging-sled, of a casting having a tapering socket or pocket open at the top and front, and the flanges L and N securable to three sides of the roller, and bolts therethrough, said pole having its rear end tapered to fit in the socket and straps bolted to the casting across the pole.

4. The combination with the pole and roller of a logging-sled, of a casting having a tapering socket or pocket open at the top and 105 front, and the flanges L and N securable to three sides of the roller, and bolts therethrough, said pole having its rear end tapered to fit in the socket, straps bolted to the casting across the pole, and the bolts K 110 through the straps, the pole and the casting.

5. The combination with the pole and roller

of a logging-sled, of a casting having a tapering socket or pocket open at the top and front, and the flanges L and N securable to three sides of the roller, and bolts there-5 through, said pole having its rear end tapered to fit in the socket, straps bolted to the casting across the pole, and the bolts K through the straps, the pole and the casting,

and the draft-hook Q and R, arranged substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses. ANDREW SWANSON.

Witnesses: GEO. J. GIDDINGS,

H. COLMAN.