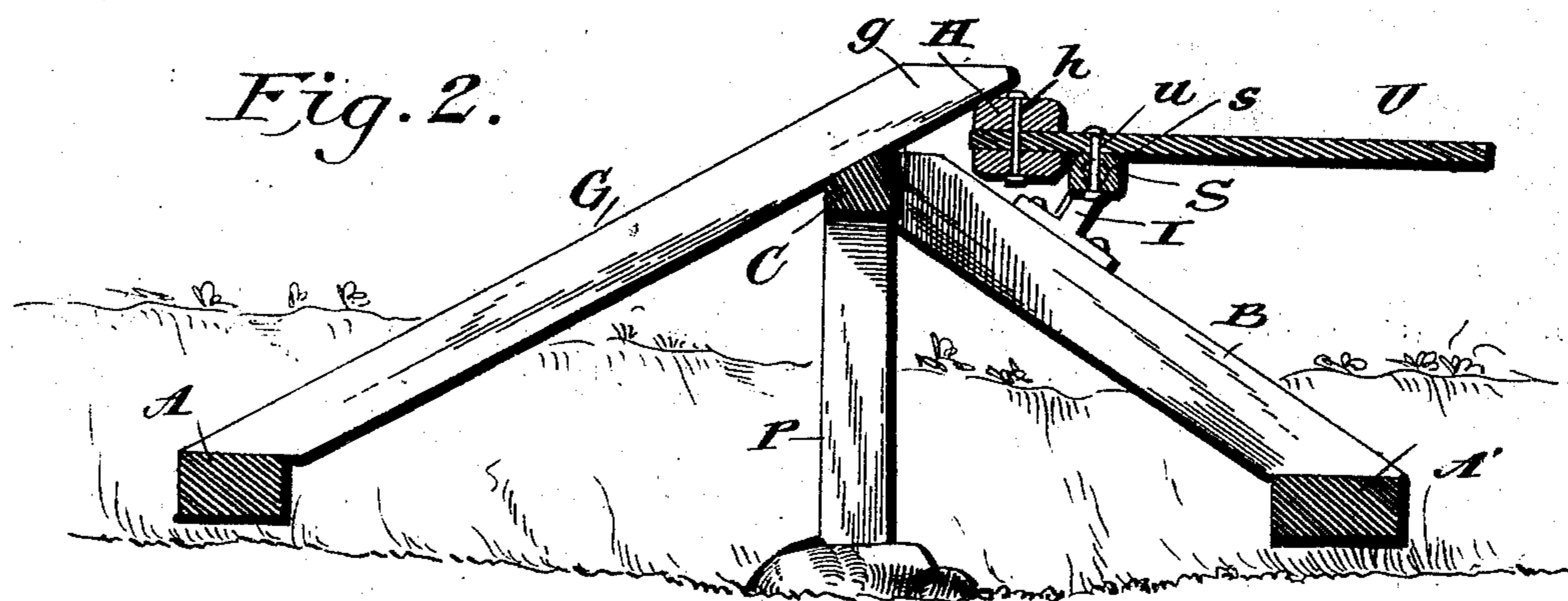
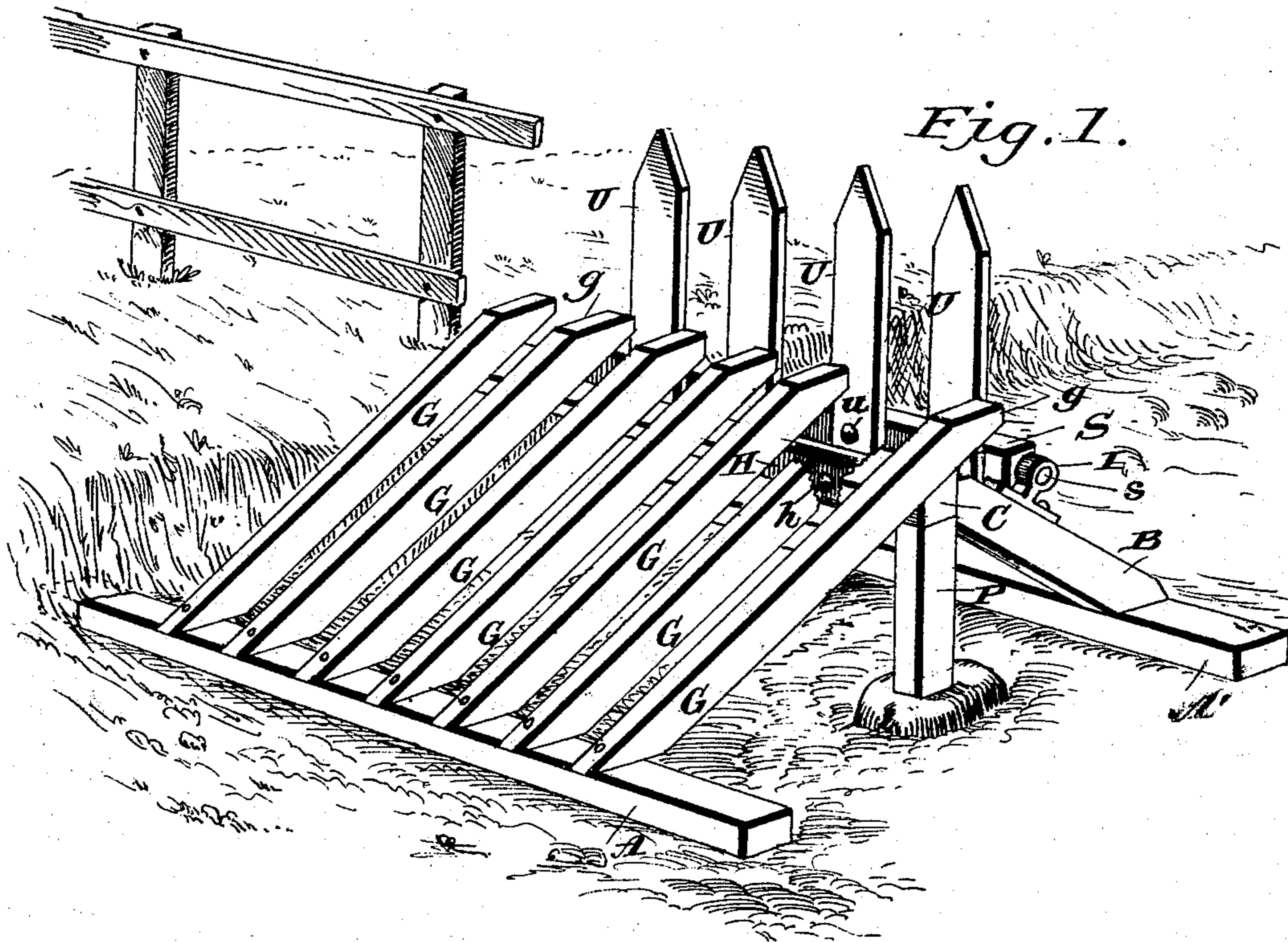


(No Model.)

H. H. EATHERTON.
FLOOD GATE.

No. 500,870.

Patented July 4, 1893.



Witnesses:

L. C. Mills
J. H. Johnson Jr.

Inventor:

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UNITED STATES PATENT OFFICE.

HENRY H. EATHERTON, OF MONTICELLO, ILLINOIS.

FLOOD-GATE.

SPECIFICATION forming part of Letters Patent No. 500,870, dated July 4, 1893.

Application filed April 14, 1893. Serial No. 470,274. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. EATHERTON, a citizen of the United States, and a resident of Monticello, Piatt county, State of Illinois, have invented certain new and useful Improvements in Flood-Gates; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to gates, and more especially to that class thereof known as flood gates: and the object of the same is to construct a gate of this character wherein the pivoted gate is of peculiar construction and operation.

To this end the invention consists in the details of construction hereinafter more fully described, and illustrated on the accompanying sheet of drawings, wherein—

Figure 1 is a perspective view of the gate complete, located within a small stream and showing the pivoted gate as standing upright. Fig. 2 is a longitudinal section of the device with the pivoted gate deflected to a horizontal position.

Referring to the said drawings, the letter A designates an anchor-sill which is preferably a beam of wood standing across and partially embedded in the bottom of a small stream with its ends or extremities preferably entering the banks thereof or held down by weights.

P P are pilings, as upright posts, set in the stream below the sill A, or these pilings may be mounted on rocks, or they may be rocks themselves; and C is a cap-stringer which is a beam extending across the stream and supported on the pilings to which it is secured at its ends in any suitable manner.

G are grate-bars secured at their up-stream ends upon the anchor-sill A, inclining upwardly down-stream, suitably spaced, resting upon and secured to the cap-stringer C, with their down-stream extremities *g* passing beyond said stringer for about one foot more or less.

B B are oblique braces, secured at their upper ends to the ends of the cap-stringer C, and with their lower ends driven into the bottom of the stream or preferably secured at a proper

point to a second anchor-sill A' similar in construction to the first mentioned sill.

The letters I I denote staples, bearings, or eyes mounted on the braces B at points a little over one foot down-stream from the cap-stringer C, and in these bearings are journaled stub shafts *s* at the extremities of a stringer S extending across the stream.

U are upright pickets secured by bolts *u* or otherwise to the gate stringer S, and H is the head of the gate which is made in two members connected by bolts *h* with the ends of the pickets just below the stringer S, this head being preferably of wood and of sufficient weight to cause the pickets to stand normally upright as shown in Fig. 1.

In operation the entire device is built into a stream as across a meadow, with the grate bars G at the up-stream side, and the water in the stream when at its normal height flows through said grate bars and under the head of the gate. The fence leads to points opposite the pilings P. When the water rises in the stream it will flow through the grate bars at a higher point, and when a freshet occurs it will flow over these grate bars and between the pickets, but the current beneath the surface of the water will strike the head H and offset the tendency of the water against the pickets to deflect the pivoted gate from a vertical position. It often occurs in freshets and at other times that drift wood or logs float down the stream, and when any such strike my improved device they will be guided up the grate bars and will pass over the down-stream ends thereof—deflecting the pivoted gate as shown in Fig. 2 until the head H strikes under the lower ends *g* of the grate bars, when the pivoted gate will be approximately horizontal and the drift wood or log may pass over so that the pivoted gate can again resume its upright position.

I do not confine myself to the precise details of construction as herein set forth, as considerable change may be made therein without departing from the principle of my invention. I consider the specific location of the gate essential since I obviate the necessity for the use of all lugs or stops to hold it in its normal or deflected positions, and I also consider the construction of the pivoted gate im-

portant, because it can be taken out of its bearings and its parts separated so as to replace them when broken. The sizes, shapes, proportions, and materials of parts are, of course, not essential to the successful operation of the device.

What is claimed as new is—

1. In a flood gate, the combination with a cap stringer supported on uprights and standing across the stream, grate bars secured at their up-stream ends to an anchor sill with their bodies passing over and secured to said stringer and their down-stream ends extending beyond the same, and braces on the down-stream side of said stringer; of a gate comprising pickets rising from a weighted head, the gate being pivoted upon said braces above the center of gravity of the head, and so located as to allow the head to strike under the down-stream ends of said bars when the gate is tilted, as and for the purpose set forth.

2. In a flood gate, the combination with a

cap stringer standing across the stream, grate bars passing over and secured to said stringer and their down-stream ends extending beyond the same, and inclined braces on the down-stream side of said stringer; of a gate comprising a stringer having reduced ends forming stub-shafts, pickets secured across the same, a weighted head in two members independent of the stringer and removably bolted to the pickets adjacent said stringer, and bearings for said stub-shafts supported by the braces at points to cause said head to strike under the down-stream ends of the grate-bars when the gate is tilted, as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my signature on this 12th day of April, A. D. 1893.

HENRY H. EATHERTON.

Witnesses:

JAMES T. VENT,

JAMES P. OWNBY.