H. F. KELLNER.

SILT BED FORMING DEVICE.

APPLICATION FILED JUNE 21, 1920.

1,355,051. Patented Oct. 5, 1920.

Fig. 1.

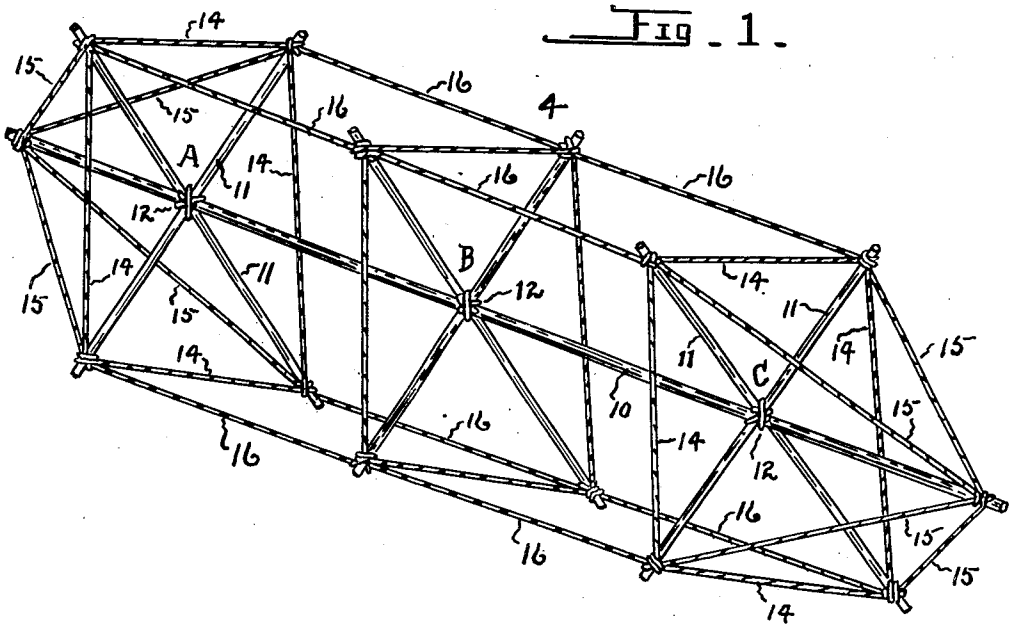


Fig. 2.

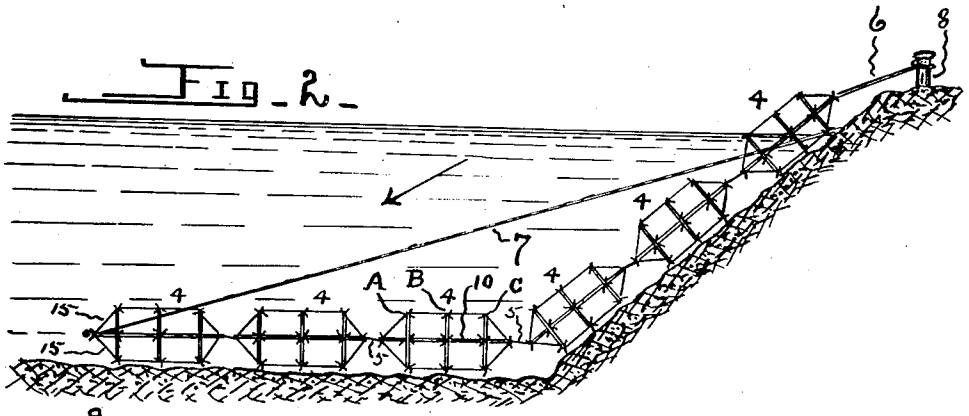
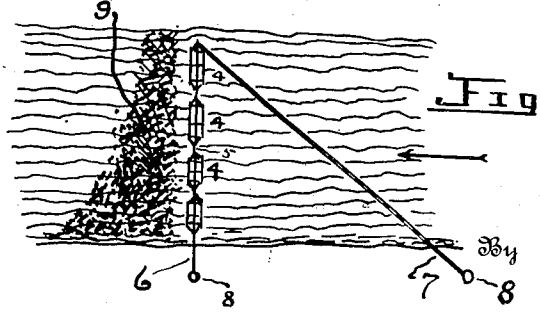


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SILT-BED-FORMING DEVICE.

1,355,051. Specification of Letters Patent. Patented Oct. 5, 1920.

Application filed June 21, 1920. Serial No. 390,364.

To all whom it may concern:

Be it known that I, HENRY F. KELLNER, a citizen of the United States, residing at Silver Lake, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Silt-Bed-Forming Devices, of which the following is a specification.

This invention relates to a silt-bed forming-device for use in deflecting water currents to form beds of sand, gravel or silt wherever required to cause a change in the channels of streams, and particularly to prevent erosion of the banks, and for causing deposits of earth along the banks of silt-bearing streams. One of the specific objects of the invention is to provide fascines which may be constructed conveniently and at a nominal expense by use of material which may be readily obtainable.

The invention consists of the novel construction, combination and arrangement of parts as described herein and claimed, and as illustrated in the accompanying drawing, wherein,—

Fig. 1 is a perspective view of one of the facines employed. Fig. 2 shows the device used in connection with the bank and bottom of a stream. Fig. 3 is a plan view illustrating use of the device.

Referring now to the drawing, the silt-forming device consists of a number of frames or fascines 4 adapted to be connected end to end by any suitable means, as by use of strands 5, shown in Figs. 2 and 3, and to be secured in moving water by any suitable means, as by cables or strands 6 and 7 secured to anchor-posts 8 upon the shore, the strand 7 being connected with that fascine farthest from the shore and extending "up-stream," as shown in the drawing, the result in operation being that beds of earth or sand 9 (Fig. 3.) will be deposited below or "down-stream" from the device. In instances where the bank, alone, is to be protected the strand or cable 7 may be dispensed with.

It will be understood that a strong current of water may cause the connected fascines, or some of them, to become inverted, and therefore they are constructed in such a manner that they will be effective for deflecting a current of water regardless of their position, and it will be seen that the parts of each frame or fascine, when assembled, are the same in plan and side elevation.

Each fascine consists, in part, of a spacing-bar 10 of any desired length, upon which are secured one or more sections, in the present instance three of said sections being shown and indicated respectively, at A, B and C.

Each section consists of a pair of cross-strips 11 disposed substantially at right-angles with reference to each other and secured at their intersecting parts to the bar 10 by any suitable means, as by means of a wire, metallic band or thong 12, the ends of each strip 11 of a pair being connected to the ends of the adjacent strip of said pair by strands 14, any movement of a section A or C longitudinally of the bar 10 being prevented by the inclined strands 15 which connect the strips 11 of the terminal sections A and C, at each of their ends, with the bar 10, near the ends thereof, strands 16 being employed for connecting the ends of the strips of section B with the ends of the strips of the sections A and C.

In order that the fascines will remain in the water in a satisfactory manner, the bar 10 is generally constructed of metal. However, metal may be used for the strips 11, if desired. When assembling the parts, the strands 14, 15 and 16 are drawn taut, and the cross-strips 11 of each section will be maintained in stationary relation relative to each other, and on account of the inclination of strands 15, which converge from the ends of the strips of sections A and C, the sections will be maintained in positions substantially parallel with each other regardless of stresses directed against them by flowing water.

As practical features it will be appreciated that the material required in constructing the fascines is readily obtainable generally in any part of the country, and that they may be conveniently made.

While I have described the device in all of its details I do not wish to be understood as limiting myself in this respect, and changes in form, size, proportion and minor details may be made, as found to be of advantage, said changes to be within the scope of the invention as claimed. In some instances a single fascine of adequate length will be sufficent in use, and on other occasions a plurality of fascines connected end

to end may be required. Also the bar 10 may be provided with a single section or a plurality of sections.

I claim:

1. In a silt-bar forming-device, a frame adapted to be placed in moving water, said frame including a spacing-bar, sections disposed transversely at longitudinal intervals on said spacing bar, each section consisting of a pair of cross-bars secured at their intersecting parts to the spacing bar, strands connecting the ends of each cross-strip of a section with the ends of an adjacent cross-strip of said section, strands connecting the ends of the cross-strips of a section with the ends of the cross-strips of an adjacent section, and strands on the spacing-bar connected with the ends of the cross-strips of said connected sections.

2. In a silt-bar forming device, a spacing-bar, cross-strips arranged in pairs, each pair being disposed at longitudinal intervals transversely on said bar and secured thereto midway between their ends, strands connecting the ends of the cross-strips of one pair with the ends of the cross-strips of an adjacent pair, strands connecting the ends of the strips of each pair, and strands diverging from the ends of the spacing-bar, said last named strands having their respective ends secured to the bar and to the ends of a pair of cross-strips.

In testimony whereof, I have affixed my signature in presence of two witnesses.

HENRY F. KELLNER.

Witnesses:

ARTHUR H. STURGES,

HIRAM A. STURGES.