

We are of the opinion that the claimant was not at a station, in the sense that he is entitled to public quarters, or to a compensation in the form of commutation for rooms and apartments or fuel, obtained or supposed to be obtained in lieu of those expected to be furnished by the government. In making this allowance, we think the Court of Claims erred.

The briefs submitted contain suggestions of what would be the result in various cases, which, it is said, may arise under these regulations. Our judgment is intended to be given upon the precise case before us, and upon no other. Should other cases be presented, the Court of Claims will give them the attention required, as will this court, should they come here. Both courts have business enough to occupy them, without anticipating cases which may never be presented.

*Judgment reversed, and cause remanded with directions to enter a judgment awarding the claimant mileage, and denying him commutation for quarters and fuel.*

NOTE.—In *United States v. Chilson*, *Same v. Rheem*, *Same v. Lynde*, cases in which the claims for commutation for fuel and quarters by officers ordered to their homes, under the act of March 3, 1869, were allowed by the court below, and which were argued by the same counsel as in that case, MR. JUSTICE HUNT delivered the opinion of the court, reversing the judgment of the Court of Claims. At the same time and by the same counsel as in the preceding cases was argued *United States v. Mears*. It involved the question whether an officer ordered to his home, under the act of March 3, 1869, was entitled to his mileage. Mears, a paymaster, paid mileage to an officer so ordered. The government disallowed the item in his accounts, and he brought suit to recover the amount. The Court of Claims found in his favor; whereupon the United States appealed to this court. MR. JUSTICE HUNT, in delivering the opinion of the court, remarked: The officer was entitled to his mileage, and the payment was rightly made.

*Judgment affirmed.*

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CAMMEYER v. NEWTON.

1. This court finds that letters-patent No. 80,492, granted to William H. Cammeyer, bearing date July 28, 1868, for an improved portable and adjustable still-water dam, were not infringed by the defendant.
2. The claims embraced by the patent, and the nature and mode of operation of the invention which is therein described, and of the machine or apparatus used by the defendant in alleged violation of the patent, examined.

APPEAL from the Circuit Court of the United States for the Southern District of New York.

*Mr. Thomas P. Howe* for the appellant.

*Mr. Assistant Attorney-General Smith, contra.*

MR. JUSTICE CLIFFORD delivered the opinion of the court.

Holders of valid letters-patent enjoy, by virtue of the same, the exclusive right and liberty of making and using the invention therein secured, and of vending the same to others to be used, as provided by the act of Congress; and the rule of law is well settled, that an invention so secured is property in the holder of the patent, and that as such the right of the holder is as much entitled to protection as any other property, during the term for which the franchise or the exclusive right or privilege is granted. *Seymour v. Osborne*, 11 Wall. 516; 16 Stat. 201.

Inventions may be assigned before they are patented: and it appears that Samuel Lewis claims to have been the original and first inventor of the patented improvement; that he, without having applied for a patent, assigned all his right, title, and interest in the invention to William H. Cammeyer, one of the complainants; that the assignee made due application for a patent, and that the patent was duly granted to him for the term of seventeen years; and that the patentee, before the suit was commenced, assigned one undivided half part of the same to said Lewis, the other complainant, together with the like proportion of the claims and rights of action which had accrued by reason of any infringement of the patent by the making, use, or sale of the patented improvement.

Due evidence of the patent and the assignment was exhibited; and the complainants allege that the respondents have infringed the patent, as more fully set forth in the bill of complaint; and they pray for an account and for an injunction. Service was made; and the respondents appeared and filed separate answers.

Briefly stated, the defences set up in the respective answers are as follows: 1. That Samuel Lewis is not the original and first inventor of the patented improvement. 2. That the patented improvement is neither new nor useful, and was not the proper subject for a patent. 3. That they have never

infringed the patent by making, using, or selling the patented improvement. 4. That the use, if any, they have made of the patented improvement was done under the directions of the United States, and as their agents or officers.

Proofs were taken by both parties; and, the parties having been fully heard, the Circuit Court entered a final decree in favor of the respondents, dismissing the bill of complaint. Due appeal was immediately taken by the complainants to this court.

Engineers and practical operators have long known and still admit that the work of blasting rocks under water is attended with many and great difficulties. Efforts have been made to overcome those difficulties; but they have never been entirely successful, nor do the complainants pretend that the patented improvement will meet every requirement in that regard. What they allege is, that their assignor is the original and first inventor of a new and useful improved portable and adjustable dam for the purpose of producing still water in which to operate for the blasting and removal of obstructions in rivers and other watercourses.

Such obstructions, where they exist in rivers or in channels affected by the ebb and flow of the tide, have the effect to contract the watercourse and to accelerate the current or flow, and consequently to increase very much the difficulties of the operator in his endeavors to blast the rocks or to remove the obstruction, except in seasons of low water, or when the tide is down.

Difficulties of the kind almost insuperable, it must be admitted, do exist when attempting to remove such obstructions in large running streams or in deep channels affected by the tide, and that the description of the same given by the patentee in the introductory portion of his specification is not very much exaggerated. As evidence to show that the invention, if successful, will be of great public utility and importance, that part of the specification refers to different localities, where, from the nature of the bottom of the stream or channel, a coffer-dam could not be constructed, and where the drilling by hand from the surface would be impracticable, owing to the depth of the water and the strength of the current.

Means of a character to remove such obstructions, the specifi-

cation states, were unknown prior to the patented improvement, and that important water thoroughfares, for the want of adequate means to accomplish such an end, are either entirely or partially closed to vessels of large draught, which may, by the use of the patented machine, be converted into highways for the largest ships engaged in commerce and navigation.

Suppose the alleged improvement will effect the described results, or will even facilitate to a considerable extent the removal of such obstructions, all, it would seem, must concede its value and utility; and the patentee proceeds to state that the main object of the same is to enable workmen to continue their operations without suspension or impediment from the strength of the current, the ebb or flow of the tide, or the varying depth of the water. All these results the patentee professes to believe can be accomplished by the mechanism described in the specification and illustrated in the annexed drawings; but it is evident, from the language of the specification, that the supposed inventor had never put the apparatus which he describes to any practical use or test. Enough appears to justify the conclusion that he believed in the theory of the improvement, and that he felt much confidence that the described mechanism would work out the described results.

Having set forth the object and aim of the improvement, the patentee then proceeds to describe the apparatus by which they are to be accomplished, as follows: Two boats are prepared (double-enders, as shown), on one or both of which is an engine of requisite power, with propeller and machinery complete for moving the boat, raising the anchors, varying the depth of the dam, and operating the drills. These boats or hulls are connected by a substantial deck, which has an opening in the centre equal to the horizontal area of the dam, for the purposes of access, light, &c., for the diver. From the deck is suspended the telescopic or sectional portion of the apparatus, with the chains and attachments, all previously adjusted and ready to be drawn through their respective openings in the deck.

By the description it also appears that the manner of constructing the telescopic or sectional portion of the apparatus is to prepare a series of plates of galvanized iron, or any other proper material, of suitable thickness, and bend and fasten them

into the form shown in the drawings, which is that of an acute parallelogram, one sliding vertically within another, so as to offer the least possible resistance to the tide or current, thereby easing the work of the anchors, and contributing generally to the control of the apparatus.

Each division of the dam is bent inwards at its upper edge, and at its lower edge has a strip fashioned so as to prevent the sections from separating. Every section is likewise provided with four eyes or eyebolts, one at each side and one at each end, which serve as guides to the several sections while operating, the eyebolts on the bottom section being attached permanently to the chains through which the dam is operated, and the bottom section being also provided with four framed wheels or eyebolts through which the side anchor-chains pass, which are to be operated by windlasses, and which extend from the boats, similar to those shown for the operation of the dam above, through the eyebolts on the bottom section, and then outward to the side anchors. Chains extend directly from the boats to the side anchors, and from the ends of the boats directly to the end anchors, the dam being operated by windlasses.

Drills are provided which work in tubes, the lower ends of the tubes being fastened into braces attached to the bottom section of the dam. Tubes of full length, it is stated, are not deemed essential, as a section of sufficient height above the braces on the bottom section of the dam to prevent the drill from being entirely withdrawn from the tube during a stroke, is for some reasons to be preferred, if the tube is properly set with a rocking joint in the lower brace.

Self anchors, so called, are also provided, which are bars of iron formed and moving in sockets, as shown in the drawings, and which, by virtue of their length and free play, adapt themselves to the irregularities of the bottom, and take a rigid and steady hold during the process of drilling. Anchors of the kind are connected with the deck, so as to be taken out of the way when desirable, and the telescopic apparatus is suspended from the deck by four links and bolts, and the several chains are drawn through their respective openings and attached to their proper windlasses.

All the appurtenances, including the boats and dam, being

complete and the sliding sections closed, the machine is taken to the spot where it is intended to begin work, the anchors are put out, and the dam is lowered.

Intelligent description of the mode of anchoring the machine and putting it in operation is also given in the specification, as follows: 1. An anchor is let go and its cable paid out to its full length, the boat moving till the anchor takes hold and the chain is taut. 2. Then the other anchor is dropped and the two chains taken up, till the floating structure is held steadily by the two anchors. 3. The side anchors are next launched from a lighter or attendant boat. 4. When these anchors are placed, it is suggested that the diver should be sent down to explore the bottom, to see whether any change of position is desirable. 5. Change may be made in any direction by letting out one cable and taking up another, if it appears that the change will give the self anchors a better face for work when the dam is lowered. 6. When the drills have penetrated to the desired depth, they are withdrawn, and the diver goes down and inserts the charges. 7. The apparatus is then removed and the charges fired, when the machine is replaced as before, and the work continued.

Four claims are made in the specification, as follows: 1. The construction and arrangement of a portable and adjustable dam in sliding or telescopic sections, in the manner and for the purposes described. 2. The combination of the self anchors with the dam, in the manner and for the purposes set forth. 3. The combination of the boats, supports, or floats with the dam and the arrangement of anchors to hold the boats in position, in the manner and for the purposes described. 4. The combination and arrangement of windlasses, chains, and boats with the dam, so that by the construction thereof a series of drills may be operated within and enclosed by the dam, in the manner and for the purposes described in the specification.

Persons seeking redress for the unlawful use of letters-patent in which they have an interest are obliged to allege and prove that they, or those under whom they claim, are the original and first inventors, and that the same have been infringed by the party against whom the suit is brought. Both of these allegations must be proved by the party instituting the suit;

but the patent, if introduced in evidence by the complainant, affords a *prima facie* presumption that the supposed inventor is the original and first inventor of the patented improvement. Evidence to overcome that presumption is admissible, provided that notice of such defence is given in the answer, as required by the rules of equity practice. *Seymour v. Osborne*, 11 Wall. 516. Notices of the kind were not given in this case, and it follows that the *prima facie* presumption must prevail.

Infringement is alleged by the complainants, and the burden is upon them to prove the allegation, as it imputes a wrongful act to the respondents. Such an issue cannot be understandingly determined without first ascertaining the true nature of the invention as embodied in the claims of the patent, when the same are properly construed in view of the descriptive portions of the specification.

Of all the claims of the patent, the first is by far the most important, and embraces all that is embodied in the other three. It is the construction and arrangement of the patented improvement called in the claim a portable and adjustable dam in sliding or telescopic sections, in the manner and for the purposes set forth in the specification.

Argument to show that the dam is to be suspended from the main deck is unnecessary, as the statement is three times repeated in the specification of the patent: 1. Figure 3 of the drawings, the specification states, shows the manner of suspending the dam from the main deck. 2. It is stated that the deck has an opening in the centre equal to the horizontal area of the dam, and that from the deck the telescopic or sectional portion of the apparatus is suspended. 3. That the telescopic apparatus is suspended from the deck by four links and bolts.

Beyond question, these references show that the patentee, when he claims the construction and arrangement of a portable and adjustable dam in sliding or telescopic sections, means a dam suspended from the deck when in use, and intends to be understood that such suspension of the dam, in the manner and by the means shown, is a necessary element of the claim.

Evidently the sections are not only free to slide in the manner described, but when the dam is in use the sections are to adjust themselves to varying depths of water, such as are

caused by the ebb and flow of the tide, which has the effect to vary the distance the dam is suspended from the bottom, showing that the top section must at all times be connected with the boat by links and bolts, as stated in the specification, or by equivalent means, and that the bottom section must be permanently connected or attached by chains or equivalent means, with a hoisting apparatus arranged on the boat.

Unless the top section is connected with the boat, the letting down of the bottom section will cause all the other sections to go down with it, and they will not be opened out telescopically, as described by the patentee. On the other hand, if the top section is connected with the boat, and the bottom section is not connected with the hoisting apparatus on the boat, the dam cannot be lifted, and the bottom section will always rest where the machine is placed; or, if the water is deep enough, all the sections will remain extended to their full length, showing that no dam constructed and arranged in the manner described in the descriptive portion of the specification can be within the first claim of the patent, unless the sections are free, at all times when the dam is in operation, to slide on each other, nor unless the top section is attached to or suspended from the boat, nor unless the bottom section is connected with a hoisting apparatus on the boat.

2. Self anchors combined with the dam constitute the second claim, which is merely a subdivision of what is embodied in the first claim. Viewed in that light, it will not be necessary to enter into any extended explanation as to its scope and signification.

Remarks already made show that the dam with telescopic sections was to be self-adjusting to tidal and other variations in the depth of the water where the machine is to be operated, and it is equally clear that the self anchors must be free to slide in their sockets with the rise and fall of the bottom section, in order that they may always rest on the bottom where the machine is placed for operation. Unless the bottom section is free to slide on the self anchors, should the bottom section be raised by an increase in the depth of water, it would raise the lower ends of the self anchors from the bottom, and might stop the working of the drills, which

shows that the self-adjustment feature of the anchors is necessary to maintain the connection of the dam with the bottom, for the reason that the dam is suspended from the deck, and that the connection of the dam with the bottom is liable to be severed by the receding of the boat from the bottom, as the tide rises beyond a depth equal to the extreme extent of the sections, showing that the feature of self-adjustment in the self anchors is inseparable from the feature of the suspension of the telescopic dam from the boat, sufficient explanation of which has already been given.

Much aid has been derived from the very able opinion of the district judge in defining the nature and mode of operation of the patented invention as embodied in the first and second claims of the patent; and the court here also concurs with the district judge in the definition which he gives of the words "self anchors" and "dam," as used in the claims and specification. As there employed, the term "self anchors" means anchors capable of self-adjustment, by having at all times free play, because not attached to their sockets nor moving with the bottom section to which the sockets are attached, which sufficiently explains the difference between the word "anchor," as commonly used, and the term "self anchors," as used in the description of the patented apparatus.

Where the claim of the patent is for a combination, it is necessary to understand the meaning of the several devices of which the combination is composed. In the second claim, the combination is the self anchors with the dam, and the term "the dam," as there used, means the dam suspended from the boat, with the described devices to accomplish in its movement and operation the functions already explained, from which it follows that no combination can be held to be within the second claim, unless it be a combination of such self anchors with such a dam, constructed and arranged in the manner described, so as to allow of such self-adjustment in the self anchors.

Two other claims are annexed to the specification; but the language of those claims are sufficiently explicit to speak their own construction without any special exposition, nor is any special explanation necessary, in the view taken of the case, as the decision of the question of infringement must depend chiefly upon the first and second claims of the patent.

Before comparing the patented machine with the apparatus used by the respondents, it will be useful to advert briefly to certain other issues tendered by the respondents in their answers. Preliminary to that, it should be remarked, that the respondent first named in the pleadings is an engineer in the employment of the United States, and that the other respondents are his agents and employes in the same service. In their answers they separately deny: 1. That they have made, constructed, or used the alleged invention of the complainants, or any substantial or material part of the patented machine. 2. That they or either of them have ever originated or planned any infringement or violation of the complainants' patent. 3. That they ever claimed to be the inventors of a still-water dam or apparatus such as that described in the bill of complaint. 4. That they ever made a model of any invention belonging to the complainants, or ever caused any drawings of the same to be constructed for any purpose. They, or the principal respondent, admit that he invented and devised a machine or apparatus for use as a caisson coffer-dam and diving-bell in excavating and removing rocks at certain reefs in New York harbor, that the same was constructed by and at the public expense, and has since been used solely and exclusively in the prosecution of the work to which the principal respondent has been assigned by the public authorities.

Public employment is no defence to the employe for having converted the private property of another to the public use without his consent and without just compensation. Private property, the Constitution provides, shall not be taken for public use without just compensation; and it is clear that that provision is as applicable to the government as to individuals, except in cases of extreme necessity in time of war and of immediate and impending public danger. *Mitchel v. Harmony*, 13 How. 115; *United States v. Russell*, 13 Wall. 623.

Sect. 22 of the Patent Act provides that every patent shall "contain a grant to the patentee, his heirs and assigns, for the term of seventeen years, of the exclusive right to make, use, and vend the said invention or discovery throughout the United States." 16 Stat. 201.

Agents of the public have no more right to take such private

property than other individuals under that provision, as it contains no exception warranting any such invasion of the private rights of individuals. Conclusive support to that proposition is found in a recent decision of this court, in which it is held that the government cannot, after the patent is issued, make use of the improvement any more than a private individual, without license of the inventor or making him compensation. *United States v. Burns*, 12 Wall. 246.

Suppose that is so, then it follows that the decision in the case before the court must depend upon the question of infringement.

Four principal propositions are maintained by the respondents responsive to that charge: 1. That the caisson coffer-dam and diving-bell which they use is not a portable and adjustable dam constructed and arranged in sliding or telescopic sections, as described in the specification of complainants' patent. 2. That it does not contain any combination of self anchors or self-adjusting supports. 3. That there is not any combination of a boat or boats with the caisson coffer-dam or diving-bell which they use, nor is there any boat or boats used or combined therewith in any manner or for any purpose similar to those set forth in the specification of the patent. 4. That there is not any combination of windlasses, chains, or boats in connection or combined with the caisson coffer-dam or diving-bell used by the respondents.

Contracts, it seems, had been made for the removal of rocks in the channel of the New York harbor, and the record shows that the respondent made a report to the War Department, in which he described the difficulties and ascribed the want of success to the imperfections in the machinery employed. Attempt was made by him to construct an apparatus for the purpose; and it appears that he subsequently filed a *caveat* in the Patent Office for the same, called improvements in the mode of constructing a caisson coffer-dam and diving-bell for the purpose of conducting operations in waters with rapid currents. Authority was subsequently given to him by the War Department to construct an apparatus embodying the arrangement set forth in the *caveat* and his antecedent report, from which it appears that an iron dome is to be sunk on the rock

to protect the drills and the diver from the velocity of the current, which, though lowered and raised from a boat, is yet entirely disconnected therefrom, and is uncontrolled thereby when in position. Drill-tubes are arranged within the dome in which the drills work, being dropped by their own weight, and raised by connection with motive power on the boat.

Experimental use of the apparatus commenced late in the fall of 1870, and it was found to work successfully, and it appears that it was for some time in constant use, and that it is the use of the same which it is alleged infringes the complainants' patent.

In that apparatus the dome is let down through the well-hole in the boat. Movable legs are provided for use when the bed is hard and uneven, which are attached to the lower edge of the dome, and fall by their own gravity until they bear on the bed in such a manner as to insure the horizontal position of the lower edge of the dome, — the legs being kept to their bearings by self-acting cams which hold them permanently in place. When the dome is properly located, it is then detached from the lowering apparatus, and becomes a structure firmly located on the bed of the channel, having no suspension from the boat or any floating structure. Of course the apparatus has drill-tubes, but they are fixed to the inside of the dome, and the drills are raised by lifting-engines on the boat and dropped to the work by their own gravity, working vertically and without friction, because the dome stands erect and immovable. Both the dome and the drill-tubes are unaffected by any motion in the boat, and the attachments to the drills being by loose connections, the action of the drills is also practically unaffected by such motion within the range to which it is limited by proper anchorage and by allowing sufficient play between the face of the well-hole and the side of the funnel, which projects up from the centre of the dome.

Without more, these suggestions are sufficient to show that the apparatus used by the respondents is substantially different from that of the complainants, for the following reasons: 1. Because the dome when in position for work is not suspended from the boat or any other floating structure. 2. Because the funnel of the dome in the respondents' apparatus, though it is

capable of being adjusted at different heights, is not and never was self-adjusting to varying depths of water. 3. Because it has no self anchors, free to slide and self-adjusting at all times while the apparatus is in use.

Prior observations are sufficient to show that these features in the apparatus of the complainants are necessary features in the operation of the patented improvement, as clearly indicated in the first and second claims of the patent; and, if so, they are abundantly sufficient to substantiate the proposition that the apparatus of the respondents is substantially different from the machine described in the complainants' specification.

Proofs were introduced by the respondents which showed that no apparatus such as is described in the specification of the patent was ever constructed and put into practical operation, and the evidence tends to show that the apparatus, if constructed as described, would be worthless.

Serious difficulty, it is apparent, would arise if the mode of anchoring the dam there described should be adopted, as its tendency certainly would be to render it impossible to work the drills with useful effect.

Discussion is scarcely necessary in respect to the third claim, as the very statement of it shows that it is not infringed by any thing in the apparatus of the respondents, as their apparatus has no anchors connected with the dome, nor which connect the dome with the boat, which is an essential feature of the third claim in the patent.

In order to make the dam an element of the combination set forth in the third claim, the anchors connected with the boat by chains passing through eyebolts on the bottom section of the dam must be included; and as the anchors so connected and operating are wanting in the apparatus of the respondents, it follows that it does not infringe the apparatus of the complainants.

Nor is it necessary to enter much into the discussion of the fourth claim of the patent, as it has already sufficiently appeared that the apparatus of the respondents has no chains connected with the dome, nor do the respondents operate the drills in the manner or by the means described in the complainants' specification. Instead of that, drill grooves in the complainants'

apparatus are all connected below with the bottom section of the dam, and that is connected with the boat by chains and a hoisting apparatus, and the upper section of the dam is fixed to the boat with the other sections hanging from it. Unlike that, the drills in the apparatus of the respondents are operated in reference to the rock without any chains connected with the dome, showing that the apparatus is substantially different from that of the complainants in respect to every claim of the patent.

Suffice it to say, without pursuing the examination, that we are all of the opinion that there is no error in the record.

*Decree affirmed.*

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INMAN STEAMSHIP COMPANY v. TINKER.

So much of the act of the legislature of New York, passed May 22, 1862, amended April 17, 1865, as requires, with certain exceptions, all ships or vessels which enter the port of New York, or load or unload, or make fast to any wharf therein, to pay a certain percentage per ton, to be computed on the tonnage expressed in the registers of enrolments of such ships or vessels respectively, is in violation of the Constitution of the United States, and therefore void.

APPEAL from the Circuit Court of the United States for the Southern District of New York.

This was a bill in equity filed by the appellant for an injunction to restrain the appellee, the captain of the port of New York and his successors in office, from collecting a fee of one and one-half per cent per ton, to be computed from the registered tonnage of certain vessels entering that port, pursuant to sect. 6, c. 487, of the acts of the legislature of the State of New York, entitled "An Act defining and regulating the powers, duties, and compensation of the captain of the port and harbor-masters of the port of New York, passed May 22, 1862, three-fifths being present. Amended April 27, 1865."

That section is as follows:—

"The following fees shall be collected under this act, and no others: All ships or vessels of the United States of one hundred tons burden or more, except lighters, tugs, barges, and canal-boats,