United States District Court,
D. Colorado.

Edward H. PHILLIPS,
Plaintiff(s).
v.
AWH CORPORATION, et al,
Defendants.

No. 97MK212(CBS)

Nov. 22, 2002.

MEMORANDUM OPINION AND ORDER ON CLAIM CONSTRUCTION FOR '798 PATENT

KRIEGER**, J.**

This action is for patent infringement brought pursuant to Title 35 of the United States Code, particularly 35 U.S.C. s. 271 et. seq . This matter is before the Court for interpretation and construction of certain disputed claims in patent no. 4, 677, 798 ('798 Patent) held by Edward H. Phillips (Phillips or Plaintiff).

I. JURISDICTION

This Court has jurisdiction pursuant to 28 U.S.C. s. 1338(a)(b).

II. PROCEDURAL HISTORY

This action was initiated on February 3, 1997. On October 3, 2000, a "Markman" hearing FN1 was conducted following which the parties filed motions for summary judgment. This matter was reassigned to the undersigned on February 14, 2002. At such time, neither the motions for summary judgment nor a claim construction ruling had been made.

FN1. This is the common vernacular for a claim construction hearing required by the United States Supreme Court in Markman v. Westview Instruments, 517 U.S. 370 (1996).

Since then, the Court has denied the motions for summary judgment. This ruling is intended to resolve the disputes concerning claim construction for the '798 Patent.

In considering claim construction, the Court has reviewed:

1. The parties' Joint Claim Construction Statement dated November 10, 19997;

2. The parties' opening briefs regarding claim construction;

3. The reporter's transcript of the Markman hearing conducted on October 3, 2000;

4. All briefs filed in support of and opposition to the parties' motions for summary judgment following the Markman hearing;

5. The exhibits admitted at the Markman hearing and submitted in support and opposition to the motions for summary judgment;

6. The parties' supplemental briefs on claim construction filed, at the Court's request, on May 31, 2002.

The Defendants have requested the opportunity for further oral argument. In light of the well presented, voluminous arguments already made by the parties, the Court finds that further oral argument is not necessary.

III. ISSUE

In this action, Phillips contends that the Defendants have infringed upon Claims 1, 21, 22, 24, 25 and 26 of the '798 Patent in constructing various prison facilities. The Defendants respond that there is no infringement because the device described in the '798 Patent is different than that utilized by Defendants. At issue is the meaning of Claims 1, 21, 22, 25 and 26 of the '798 Patent.

IV. PATENT AND PROSECUTION HISTORY

The '798 Patent entitled "Steel Shell Modules for Prisoner Detention Facilities" describes a method of constructing metal, modular wall panels for use in prison facilities. The '798 Patent reflects an invention designed to create "vandalism resistant building modules suitable for detention and secured storage facilities". (Plaintiff's Exhibit 1, Abstract.)

At the time of submission of the '798 Patent, modular construction of prison facilities involved two methods-"sandwich panels" (Exhibit 9) or "steel stud panels" (Exhibit 8). The sandwich panel had two outer faces of thin metal skin used to enclose insulation. Such panels worked well in controlling temperature and sound, but lacked sufficient rigidity to bear loads of any kind and could not be fire rated because the panels collapsed too quickly. (Markman Transcript, p. 35, Lines 12-25 to p. 36, ln. 6; and Exhibit 12.) Steel stud walls had metal outer faces with metal interior studs that linked the wall faces to each other. The steel stud walls provided improved rigidity for load bearing, but the studs and end pieces of each panel created a thermal-acoustical path which allowed excessive heat and sound transmission to be transmitted from one face of the panel to the other. (Markman Transcript, p. 36, ln. 21 to p. 37, ln. 10; and Exhibit 12.)

The Phillips invention was designed to retain the load bearing capabilities of the steel stud wall but to eliminate the thermal-acoustical path from one face of the panel to the other created by the studs and the end pieces of each panel. Philips accomplished this in two ways. First, in his invention, the ends of each modular panel do not use steel-to-steel contact to link the faces to each other. Instead, the end of a module is formed by bending the module's face toward the interior of the panel and a thermal acoustical sealant is used to join the bent end of the panel to the opposing face wall. Second, the invention utilizes baffles in the interior of each wall, but such baffles do not connect one face to the other. The internal baffles are directed at angles other than 90 (deg.) to the wall face which provides resistance to bullets and other projectiles that impact the wall.

In the Specification for Patent '798, Philips describes the invention as follows:

This invention provides modular equipment for formulating detention structures comprising of a multiplicity of interchangeable modules of similar size having steel plate inner and outer wall sections defining end closures and internally directed load supporting baffles. The modules comprise three steel plate wall panel sections of partially triangular cross section shape positioned to provide the internally directed baffles and the end-closure walls. Modules of a size that may be manually processed are abutted together end to end in registration and welded together along two weld lines to form walls for the detention structure. The ends are indented so that the two weld lines at the wall section surfaces are the sole lines of registered contact.

The baffles provided by the triangular shaped panels to extend inwardly form an intermediate interlocking barrier with the baffles disposed at such angles that bullets which might penetrate the outer steel panels are deflected. Flanges are formed between the inner and outer wall panels between which a ropelike insulating seal is compressed to isolate the two walls. Two different kinds of filler insulating material may be inserted on opposite sides of the intermediate layer to increase the versatility of the modules. Thus, insulation properties, impact properties or load bearing properties may be emphasized by the appropriate filler materials.

Accordingly jail or other detention structures may have substantially sound, impact and fire resistant characteristics. Thus, vandalism resistance is provided. The exterior steel plate walls are smooth and strong and easy to decorate and maintain. The modules may carry utility instruments and utility flow lines. This construction is also ideal for storage vault use, safety barriers and other secure facilities.

(Plaintiffs Exhibit 1, Column 1, Line 65-Column 2, Line 31.)

The original patent and a later amendment are accompanied by eighteen diagrams, six of which display the internal configuration of the modular wall. (Abstract and Figures 2, 4, 5, 6 and 7). Seven diagrams display how the end abuttments attach to the face walls of the modules. (Abstract and Figures 2, 3, 4, 5, 6 and 7). All of the diagrams display the internal baffles extending from an acute or oblique angle to the wall faces. No diagram shows a baffle extending internally at a right angle to a face wall in a T-shaped form or connecting the two wall faces. All diagrams showing the end abuttment of the module display the bending of one wall face to create the end piece. None of the figures are identified as a "preferred" or "best" mode.

Patent '798 contains 26 Claims. The original application was submitted on April 14, 1986. In this submission, neither Claim 1 nor Claim 18 referred to baffles. As a result, on September 25, 1986, the United States Patent and Trademark Office rejected Claims 1 and 18 as being "unpatentable over a prior patent" (Patent 3,899,043) and rejected Claims 2 through 17 being dependent upon a rejected base claim (Claim 1). Claims 19 through 28 were allowable. On December 19, 1986, Philips filed amended Claims 1 through 18. Claim 1 was rewritten to include reference to internal steel baffles and claim 18 was withdrawn. The patent was thereafter approved and issued to Philips on July 7, 1987.

V. ANALYSIS

A. Legal Doctrines Applicable to Claim Interpretation.

Determination of whether a patent is infringed is a two-step analysis. CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1365 (Fed.Cir.2002). *See also,* Johnson Worldwide Assocs. v. Zebco Corp., 175 F.3d 985,

988 (Fed.Cir.1999). The first step is interpretation or construction of the claim; the second is to determine whether the accused product infringes the claims as interpreted. This decision addresses only the first step.

The Court "must determine as a matter of law the correct scope and meaning of a disputed claim term." *CCS Fitness* at 1365; *Lizardtech, Inc. v. Earth Resource Mapping, Inc.,* 35 Fed.App. 918, 923 (Fed.Cir.2002) (unpublished) (Claim terms may be "viewed in the context of the invention as a whole and through the lens of one skilled in the relevant art."); Hoganas AB v. Dresser Indus., Inc., 9 F.3d 948, 952 n. 15 (Fed.Cir.1993) (citing Smithkline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878, 882 (Fed.Cir.1988) ("[T]he claims should be construed as one skilled in the art would construe them.")). At this stage, a court construes the claims' meaning without reference to what is known as the "accused device." *See* Young Dental Mfg. Co. v. Q3 Special Prods. 112 F.3d 1137, 1141 (Fed.Cir.1997). This issue is exclusively a question of law. Markman v. Westview Instruments, 517 U.S. 370 (1996).

The goal of patent claim construction is to spell out in layman's simple language the meaning and the scope of the legal language contained in a patent. The claims of a patent are akin to a contract. *See* Doble Engineering Co. v. Leeds & Northrop Co., 134 F.2d 78 (1st Cir.1943). The claims describe the basic invention, Autogiro Co. of America v. United States, 384 F.2d 391 (Ct.Cl.1967), and the words in claims are to be given their ordinary meaning in the absence of an indication in the patent to the contrary. *See* Gentex Corp. v. Donley Corp., 69 F.3d 527, 530 (Fed.Cir.1995); Transmatic, Inc. v. Goulton Industries, Inc., 53 F.3d 1270, 1277 (Fed.Cir.1995). However, because an inventor is allowed to be his or her own lexicographer, the meaning of the words in a claim may be different from the ordinary meaning. Intelicall Inc. v. Phonometrics, Inc., 952 F.2d 1384, 1987-88 (Fed.Cir.1992).

To determine what the words in a claim mean, a court may look to both intrinsic and extrinsic evidence. Intrinsic evidence includes the claims, the specification with drawings and the prosecution history. Extrinsic evidence includes prior art references, dictionaries and expert testimony.

1. Intrinsic Evidence.

The Court begins with the intrinsic evidence because it is "the most significant source of the legally operative meaning of disputed claim language." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). Only if the intrinsic evidence is ambiguous in delineating the scope of the patent should a court resort to extrinsic evidence. *See* Phillips Petroleum Co. v. Huntsman Polymers Corp., 157 F.3d 866, 870 (Fed.Cir.1998). Intrinsic evidence is composed of the language of the patent claims, the patent specification and drawings, and the prosecution history. *See,* Vitronics, 90 F.3d at 1582.

a. Claims.

The claims of a patent are the concise formal definition of an invention expressed in numbered paragraphs. The doctrine of claim differentiation presumes that each numbered claim, except as specifically stated in it, stands independently. Thus, each claim defines an invention not only by the words in the particular claim, but also by the absence of terms found in other claims.

The doctrine of claim differentiation precludes the reading of the limitations found in narrower, dependent claims into broader, independent claims. *See* Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 770 (Fed.Cir.1983) *cert. denied* 465 U.S. 1026 (1984); Wenger Manufacturing, Inc. v. Coating Mach. Sys. Inc., 239 F.3d 1225, 1233 (Fed.Cir.2001); Xerox Corp. v. 3M Corp., 267 F.3d 1361, 1366 (Fed.Cir.2001). Recent opinions, such as those cited above, however, acknowledge that the claim differentiation doctrine applies

only in circumstances where a limitation of a dependent claim is the only or primary meaningful difference between it and the independent claim. *See* Ecolab, Inc. v. Paraclipse, Inc., 285 F.3d 1362, 1375 (Fed.Cir.2002).

b. Specification and Drawings.

The patent specification describes the invention and often includes diagrams to display its attributes. The specification is generally regarded as the single best guide to the meaning of a disputed claim term. It acts as a dictionary when it expressly or impliedly defines terms used in the patent claims.

The claims are always construed in light of the specification, of which they are a part. The role of the specification includes presenting a description of the technologic subject matter of the invention, while the role of claims is to point out with particularity the subject matter that is patented. The claims are directed to the invention that is described in the specification; they do not have meaning removed from the context from which they arose. Thus the claims are construed to state the legal scope of each patented invention, on examination of the language of the claims, the description in the specification, and the prosecution history.

Network, LLC v. Centraal Corp., 242 F.3d 1347, 1352 (Fed.Cir.2001) (internal citations omitted).

Two fundamental rules assist the Court in interpreting claims in light of the specification:

(a) one may not read a limitation into a claim from the written description, but (b) one may look to the written description to define a term already in a claim limitation, for a claim must be read in view of the specification of which it is a part. These two rules lay out the general relationship between the claims and the written description.

Renishaw, 158 F.3d at 1248.

There are several recognized exceptions to the fundamental rule that the specification should not limit or restrict the meaning of a claim. The first exception applies when the specification describes or displays a single, particular embodiment as the invention, itself. It is generally recognized that the description or diagrams in the patent specification may be narrower than the invention described in the patent claims. This is because the specification "sets forth the best mode contemplated by the inventor of carrying out his invention." 35 U.S.C. s. 112, as compared to all the modes that could be used. A patentee may display only the "best mode" or "preferred embodiment" of the invention in the specification. If the patentee displays only the best mode of the patent in diagrams or the specification this does not ordinarily restrict the meaning of a claim. *See* Adams v. United States, 330 F.2d 622, 625 (Ct.Cl.1964) *aff'd* 383 U.S. 39 (1966). If the specification does not identify the described or displayed embodiment in terms of being the "best mode" or "preferred embodiment," and the patentee describes a particular embodiment as the invention, itself, rather than only one way of utilizing the invention, the specification may limit the claim's scope. *See* Autogiro, 384 F.2d at 398.

The specification may also limit the meaning of a claim if (1) the patentee has clearly and unequivocally set forth a special definition for a term in the specification; or (2) the terms used in the claim are so unclear that there is no means by which the scope of the claim can be ascertained from its language. In such events, the language of the specification is controlling. *See* Bell Atlantic Network Servs, Inc. v. Covad Communications Group, 262 F.3d 1258, 1270-71 (Fed.Cir.2001); Johnson Worldwide Assoc., Inc. v. Zebco Corp., 175 F.3d at

990.

Finally, pursuant to 35 U.S.C. s. 112, if a claim contains "means-plus-function" language, the specification is used to define and limit the function. This section provides:

An element in a claim for combination may be expressed as a means or step performing a specified function without the recital of structures, material or acts in support thereof, and such claims shall be construed to cover the corresponding structure, material or acts described in the specification and equivalence thereof.

Whether a claim is written in means-plus-function format is a question of law. Personalized Media Comm., LLC v. ITC, 161 F.3d 696, 702 (Fed.Cir.1998).

The mean-plus-function language is usually triggered when the word "means" appears in a patent claim. However, if the claim language that follows the word "means" designates the structure that performs the function described, such language is not read as a means-plus-function element.

To invoke this statute [35 U.S.C. s. 112], the alleged means-plus-function element must not recite a definite structure which performs the described function. Patent drafters conventionally achieve this by using only the words "means for" followed by a recitation of the function performed.

Coal v. Kimberly-Clark Corp., 102 F.3d 524, 530-31 (Fed.Cir.1996).

c. Prosecution History.

The history of the patent's submission, modification and relationship to other patents can also assist in understanding the meaning of disputed claim language. *See* Biodex Corp. v. Loredan Biomedical, Inc., 946 F.2d 850, 862 (Fed.Cir.1991). Because patents are presumed to describe unique inventions, the prosecution history may indicate that certain interpretations of claim language are appropriate to avoid replicating prior art. *See* Biodex, 946 F.2d at 863; Builders Concrete, Inc. v. Bremerton Concrete Products Co., 757 F.2d 255, 260 (Fed.Cir.1985) ("[T]he prosecution history of all claims is not insulated from review in connection with determining the fair scope of [a] claim.... To hold otherwise would be to exalt form over substance and distort the logic of this jurisprudence, which serves as an effective and useful guide to the understanding of patent claims.").

2. Extrinsic Evidence.

If the intrinsic evidence is ambiguous, a court may then refer to extrinsic evidence such as technical experts, dictionaries, prior art references and treatises for the meaning of technical terms or to understand the underlying technology. Such sources may not be used to contradict the claim language, but only to explain it, and when the intrinsic evidence is unambiguous, expert testimony is entitled to no weight. Even when the intrinsic evidence is ambiguous, expert testimony on claim construction should be treated with "utmost caution". *See* Vitronics, supra, 90 F.3d at 1582-1585; *Markman,* 52 F.3d at 979-986 (Fed.Cir.1995).

B. The Disputed Claim Language

The parties dispute the following highlighted claim language in Patent '798:

Claim 1. Building modules adapted to fit together for construction of fire, sound and impact resistant

security barriers and rooms for use in securing records and persons, comprising in combination, an outer shell of substantially parallelepiped shaped with two outer steel plate panel sections of greater surface area serving as inner and outer walls for a structure when a plurality of the modules are fitted together, sealant means spacing the two panel sections from steel to steel contact with each other by a thermal-acoustical barrier material, and further means disposed inside the shell for increasing its load bearing capacity comprising internal steel baffles extending inwardly from the steel shell walls.

* * *

Claim 21. A prisoner detention facility providing vandalism resistance constructed of modular shells having outer steel plate wall panels welded together to provide unitary inner and outer steel walls and internal baffles with the modular shells enclosing insulating material providing substantial thermal, sound and impact resistance.

Claim 22. Modular equipment for formulating detention structures comprising of a multiplicity of interchangeable modules fo similar size having steel plate inner and outer wall sections defining end closures and internally directed load supporting baffles with said modules welded together to form said detention structure.

* * *

Claim 24. Modular equipment as defined in claim 22 including insulation material inside the modules for resisting fire, sound and impact.

Claim 25. Modular equipment as defined in claim 22 including modular shape for abutting modules end to end in registration to meet substantially only along two welded lines appearing at the inner and outer wall outer surfaces, wherein the multiplicity of modules are welded together along the two weld lines.

Claim 26. Modular equipment as defined in claim 22 including means defined in the end closures disposing thermal insulation between the inner and outer walls to interrupt steel to steel contact.

1. Claim 1

a. Preamble.

The parties agree that Claim I includes a preamble and three elements. The parties further agree that the preamble should be included in the claim because it contains four terms essential to the Patent. The preamble states:

Building modules adapted to fit together for construction of fire, sound and impact resistant security barriers and rooms for use in securing records and prisons, comprising in combination.

(Exhibit 1, Column 6, Lines 22-25.)

The parties disagree, however, as to whether the foregoing terms "fire resistant", "impact resistant" and "sound resistant" are terms of art. The Plaintiff contends that as terms of art, these terms should be defined

in accordance with the Model Building Code adopted by the organization of Building Officials and Code Administrators International, Inc., referred to as BOCA. (Plaintiff's Exhibit 4). According to BOCA definitions, "fire resistant" describes the ability to resist the spread of fire, particularly the ability to pass appropriate fire testing procedures. For most security applications, this requires passage of a two-hour loaded fire test. (BOCA definitions, sections 401.0 and 1403.1.1.) Sound resistance is defined as "ability to pass code test for the transmission of airborne and structural noise." (BOCA definitions 715.2 and 715.3.) Impact resistance is defined as "ability to resist any reasonably anticipated forces or kinetic loads in a jail or a prison environment." (Plaintiff's Exhibit 4.)

The Defendant argues that nothing in the Patent suggests that these be regarded as terms of art. Instead, the Defendant contends that they are unique terms that should be defined consistent with their use in the Specification.

With regard to terms "fire resistant" and "sound resistant", the opposing arguments create a distinction without a difference. Although the BOCA Code definitions are extrinsic evidence and the Specification is intrinsic evidence, the meanings and contextual reference of these terms in both sources is essentially the same.

The same cannot be said, however, for the term "impact resistant". With regard to impact resistance, the Defendant's argument is more persuasive. Although the general rule prohibits resort to the Specification in order to ascertain the meaning of a claim, an exception to the rule is applicable here. The term "impact resistant" is not defined in the claim. Therefore reference to some other source is required. The preferred reference is to intrinsic evidence such as the Specification, before resort to extrinsic evidence such as the BOCA definitions. Vitronics, 90 F .3d at 1582. In addition, the BOCA definition of the term "impact resistant" is imprecise because it is contextually dependent. BOCA's definition of impact resistant as the "ability to resist any reasonably anticipated forces or kinetic loads in a jail or prison environment" is meaningless without further explanation or identification of the anticipated kinetic or impact forces to be resisted.

It is the Specification which describes the anticipated forces or kinetic loads reasonably anticipated. It identifies these forces as coming from bullets or bomb fragments.

In secured facilities, and protected barriers, it is feasible that projectiles may be encountered, such as bullets from high powered guns or bomb fragments. There have not been effective ways of dealing with these powerful impact weapons with inexpensive housing in the prior art.

(Exhibit 1, Column 3, Lines 27-32.)

* * *

Thus the modular building construction afforded by this invention provides significant advantage wherever security provision need be provided. Typical wall characteristics include bullet and explosion resistance, fire and heat resistance, acoustic insulation, ease of manual assembly on site, and high structural strength.

Uniquely the advantages of the steel shell modules are combined with thermal and acoustical isolation of two spaced walls in protection against bullet penetration of the walls. Accordingly, those novel features

believed descriptive of the nature and spirit of the invention are defined with particularity in the claims.

(Exhibit 1, Column 6, Lines 14-20.)

Although the inventor and expert witnesses testified that the bullet penetration may not be the impact ordinarily associated with prisons, their testimony is disregarded in deference to the clear statement in the Specification that the invention's impact resistance feature pertains to bullets and exploding projectiles. Thus, the Court agrees with the Defendant that term "impact resistant" is defined by the Specification as resisting the impact of bullets, exploding projectiles or bomb fragments.

b. Element 1

"An outer shell of substantially parallelepiped shaped ..."
The parties have stipulated that a parallelepiped shape is a polyhedron, all of whose faces are a parallelograms. (McGraw Hill Dictionary of Scientific and Technical Terms.) In this context, a parallelepiped structure would be a six-sided box where each opposing pair of sides are parallel. The parties disagree as to the meaning of the word "substantially".

The Plaintiff contends that the term "substantially" has the meaning that those skilled in the art already know or could ascertain with the use of a dictionary. Thus, the Plaintiff contends that the word "substantially" means "considerable in ... extent" or "largely, but not wholly that which is specified." York Products Inc. v. Central Tractor Farm & Family Cntr, Inc., 99 F.3d 1568 (Fed.Cir.1995) (from American Heritage Dictionary, Second College Edition, 2d Edition 1982 and Webster's Ninth New Collegiate Dictionary, Ninth Edition, 1983, respectively). The Plaintiff explains that "substantially parallelepiped" therefore means a shape that is almost, but not quite a parallelogram. The Defendants argue that the phrase "substantially parallelepiped" is ambiguous and therefore must be limited by Figures 6 and 7 of the Specification.

The difficulty in giving meaning to the phrase "substantially parallelepiped" is not in the meaning of the word "substantially". It is, instead, that the word "substantially" negates the characterization of "parallelepiped" to some degree. The issue is in what way and to what degree a "substantially parallelepiped" shape differs from a parallelogram. Simply stated, an object that is "substantially parallelepiped" is an object which is *not* a parallelogram because not all of its opposing sides are parallel with each other. This meaning is clear, but describing a structure as "substantially parallelepiped" does not reveal which sides of the parallelogram are and are not parallel. To that extent, the phrase is ambiguous.

Where claim language is ambiguous and therefore cannot be understood, it is appropriate to refer to the written description in the Specification. *Bell Atlantic Network Svs.,* 260 F.3d at 1270-71. Reference to the Specification is helpful in this context because it clarifies which sides of the module are not parallel. Figures 2, 3, 6 and 7 reveal that it is the end panels of each module that are not parallel to each other.

FIG. 2.

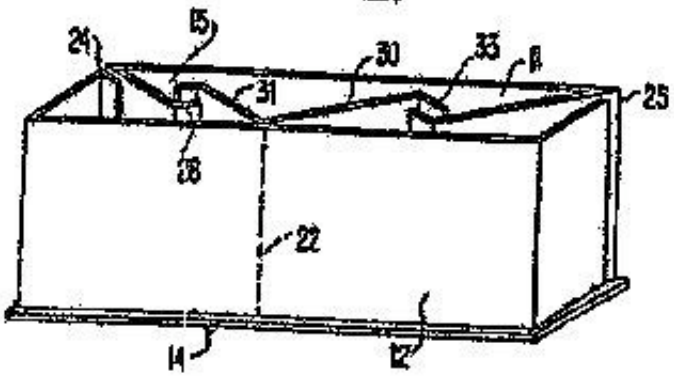


FIG. 3.

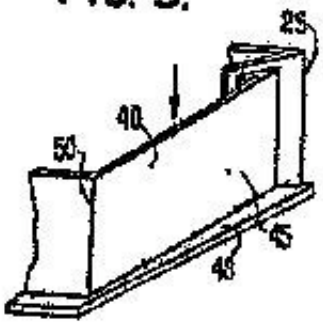


FIG. 6.

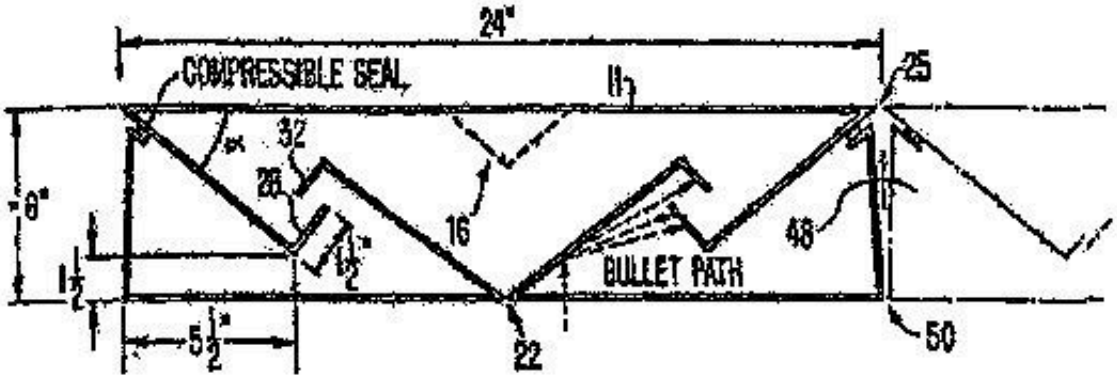
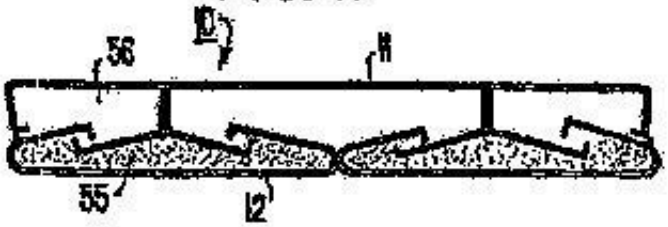


FIG. 7.



All these figures show that one or both of the wall faces of the modules are bent to form the end abuttment

structure, and that the bent portion flanges in toward the center of the wall. Indeed, the Specification describes this precise attribute.

Modules of a size that may be manually processed are abutted together end to end in registration and welded together along two weld lines to form walls for the detention structure. The ends are indented so that the two weld lines at the wall section surfaces are the sole lines of registered contact. Exhibit 1, column 2, Ins 5-10. As best seen from Fig. 3, the module ends are not perpendicular to the front and back panel facings 11 and 12. Thus the apex 49 of the right angle triangular panel section 21 is displaced inwardly toward the center of the module.... The end plate 40 thus is at an angle 48 of a few degrees. As a result there is only line contact between adjacent modules along the apex 25 and the apex 50 when the modules are assembled in registration.

(Exhibit 1, Col. 4, Lines 60-70.)

Thus, the Court concludes that for purposes of Claim 1, the phrase "substantially parallelepiped" means a six-sided parallelogram in which the end panels are neither parallel to each other nor perpendicular to the face walls.

c. Element 2

With two outer steel plate panel sections of greater surface area serving as inner and outer walls for a structure when a plurality of the modules are fitted together.
The parties have stipulated that the Specification provides a special meaning for "steel plate" in the Specification where the term is defined as meaning 14 to 10-gauge steel. The parties' dispute focuses on this language in the context of the following reference.

The Plaintiff contends that the phrase "steel plate panel sections of greater surface area" simply identifies the largest sides or wall faces of the six-sided wall module. The Defendants argue that the meaning of "steel plate panel sections of greater surface area" should be limited to the partially triangular shapes forming the interior and exterior walls in Figures 4, 5 and 6, and to comport with the language found in the Abstract and Specification.

Three steel panel pieces are formed into a module, each being partly triangular in cross-section so that only one weld seam between two of the panels is required in assembling the three pieces, which thereby form the internal baffles that angles for deflecting bullets.

(Exhibit 1, Abstract, cover page.)

* * *

... the modules comprise three steel plate wall panel sections of partially triangular cross section shape positioned to provide the internally directed baffles and the end closure walls.

(Exhibit 1, Column 2, Lines 2-5.)

This controversy focuses upon whether the subject language in Claim 1 is so broad and amorphous that it

must be reconciled either with 1) the Specification or 2) Claims 4 through 16. The Plaintiff argues that Claims 4-16 describe and Figures 4, 5, 6 and 7 display the "best modes" of the invention contemplated by 35 U.S.C. s. 112, rather than the only possible embodiment of the invention. The Plaintiff further argues that fundamental claim construction principles preclude any narrowing of the subject language, and that there is no need to resort to the Specification.

The Court agrees with the Plaintiff. Claim interpretation must not limit the claim to the "best mode" terms inasmuch as the patentee need not list every possible infringing device in the Specification. Adams v. United States, 330 F.2d at 625. The language describing "two outer steel plate panel sections of greater surface areas serving as inner and outer walls" is sufficiently precise to describe the face walls of a module. The language "for a structure when the plurality of the modules are fitted together" further explains that the steel plate panel sections serve as the inner and outer walls of the six-sided, module. Such terms are not so broad or amorphous that reference to the Specification is needed. Although all of the drawings in the Specification show triangular shapes in Figures 2, 4, 5, 6 and 7, the particularized shapes differ slightly and therefore represent varying modes of the invention. Although they are similar in several respects, only Figures 4, 5 and 6 display walls constructed of three triangular pieces. Figures 2 and 7 display walls constructed with slightly different shaped pieces. Indeed, Figure 7 is identified as a particular embodiment.

FIG. 2.

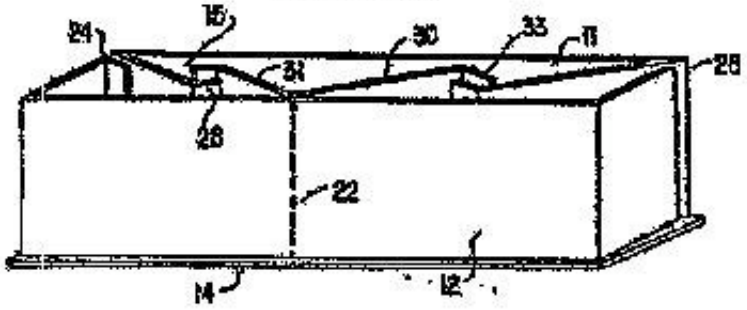
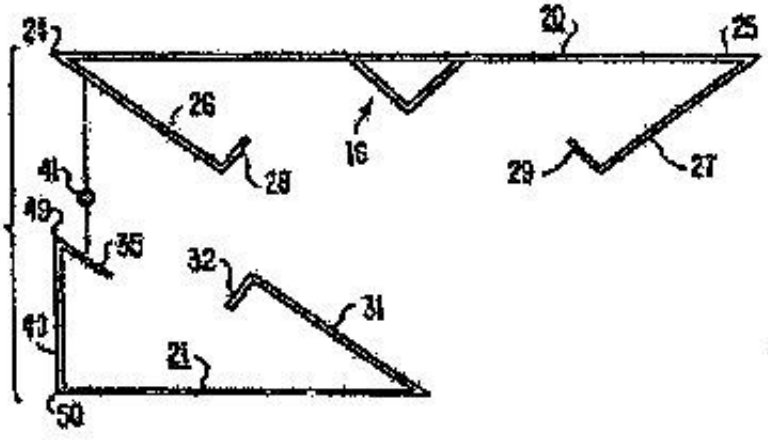
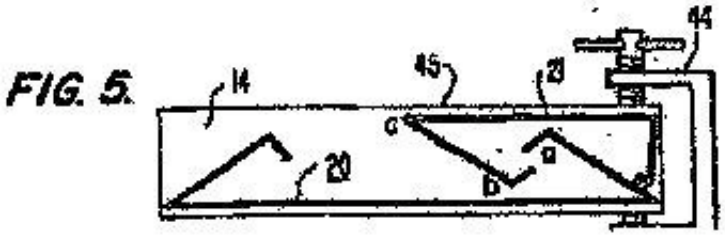
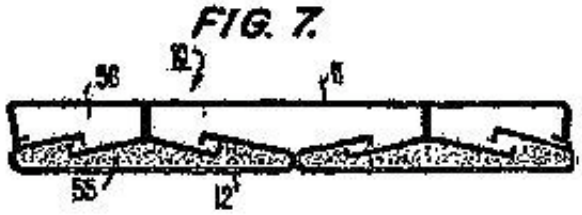


FIG. 4



Compare to:





This language is also subject to application of the claims differentiation rule. Claims 4 through 16 are dependent claims in that they borrow the description found in Claim 1, but one of the primary distinctions between Claim 1 and Claims 4 and 16 is reference to the triangular shape depicted in Figures 4, 5 and 6, above. Thus, this language is not limited to the triangular shapes displayed in Figures 4, 5 and 6 of the Specification.

d. Element 3

Sealant means spacing the two panel sections from steel to steel contact with each other by a thermal acoustical barrier material.
The Defendant contends that the means-plus-function test of 35 U.S.C. s. 112, is applicable and therefore the definition of sealant should be determined by the Specification as compressible glass rope. Plaintiff replies that although this element appears to be in a means-plus-function format, it is not limited by the Specification because the structure to perform the function is specified in the claim. According to the Plaintiff, the specified structure is a thermal acoustical barrier which can be of varying types of material.

It is not necessary to decide whether the means-plus-function characterization is applicable or not because both the plain language and the Specification anticipate that a sealant is a spacer with thermal acoustical properties. Neither limits the sealant to compressible glass rope. Thus, the sealant described in this claim may be a glass fiber rope or some other material with thermal acoustical properties.

e. Element 4

Further means disposed inside the shelve for increasing its load bearing capacity comprising internal steel baffles extending inwardly from the steel shell walls.
The Defendants argue that this element is written in a means-plus-function format and, therefore, should be defined and limited by the Specification, particularly limited to the description and display of baffles disposed at acute or oblique angles to the wall faces.FN2 Alternatively, Defendants argue that "baffle" is not

adequately defined in Claim 1 and therefore should be defined by the figures and text of the Specification as 1) being deployed toward the interior of the module at an angle other than 90 (deg.) for the purpose of deflecting bullets or other projectiles; and 2) that the baffles form an intermediate, interlocking barrier.

FN2. (Exhibit 1, Abstract Cover Page; Exhibit 1, Column 1, Lines 48-62; Exhibit 1, Column 2, Lines 12-16; Exhibit 1, Column 3, Lines 26-32; Exhibit 1, Column 3, Lines 43-44; Exhibit 1, Column 5, Lines 14-18; Exhibit 1, Column 5, Lines 20-24; Exhibit 1, Column 5, Lines 20-24; Exhibit 1, Column 5, Lines 25-29); Figures 2, 4, 5, 6 and 7.

The Plaintiff responds that although this phrase appears to be a means-plus-function element, it is not because the language identifies the structure, "internal steel baffles" and locates them, "extending inwardly from the steel shell walls". Plaintiff further argues that the term "load bearing" is a technical term. Plaintiff concedes that the word "baffle" is not specifically defined in the patent. The parties have stipulated that the meaning of "baffle" is a "means for obstructing, impeding or checking the flow of something". Webster's Third International Dictionary; (Parties' Joint Claim Construction Statement I.). Thus, Plaintiff argues that the drawings in the Specification which show angled baffles disposed to deflect bullets and other projectiles are simply best mode drawings and that the claim does not require either a required angle of deflection nor that baffles create an intermediate, interlocking barrier. To support this argument, the Plaintiff points out that baffles which act as an intermediate barrier designed to deflect bullets and other projectiles appear in Claim 6-14, but not in the other patent claims. Plaintiff also argues that the doctrine of claim differentiation requires acknowledgment that Claim 1 generally describes baffles while Claims 2, 6, 10, 17, 19 and 23 specifically describe angled baffles. Furthermore, Plaintiff argues that the baffles described in this claim need not create an intermediate barrier as displayed in Figures 2, 6 and 7.

The Court's analysis begins with the parties' stipulation that "baffle" is defined as a "means for obstructing, impeding or checking the flow of something". (Webster's Third International Dictionary.) Using this definition, the reference to "baffle" in Claim 1 is ambiguous to the extent that it does not identify the substance or force the flow of which it is intended to check, impede or obstruct. The modifying language, "load bearing capacity comprising internal steel" and "extending inwardly from the steel shell walls," does not offer further clarity. Although the preamble of the claim suggests that the purpose of the "baffle" is to enhance heat, sound and impact resistance, even this language does not identify the substance which the baffle checks, impedes or obstructs. The subject language includes a means and a structure, but does not adequately describe the function of the structure. Therefore, I conclude that this language is a means-plus-function description that is limited by the Specification pursuant to 35 U.S.C. s. 112.

In referring to the Specification, the Court is cognizant that a Specification ordinarily sets out the "best mode" of the invention, and that ordinarily the claim need not be limited to that mode. However, where the Specification does not describe the embodiments in terms of "best mode", the embodiment may be the invention, itself, rather than only one way of utilizing it. See Autogiro, 384 F.2d at 398.

In the context of this invention, the parties agree that a "baffle" is an object which checks, impedes or obstructs the flow of something. The questions are what is checked, impeded or obstructed, and from what direction does that something come? The "means-plus-function" characterization requires reference to the Specification. The Specification does not expressly answer either question, but it implies answers. The Specification refers to sound and heat resistance generally, and specifically refers to baffles to retard fire and projectiles. (Exhibit 1, Column 1, Lines 39-42; Exhibit 1, Column 3, Lines 11-16; Lines 26-31; Lines

41-45; Exhibit 1, Column 5, Lines 14-24).

Both fire and projectiles impact a wall face rather than the ends of a module. Thus, one can reasonably anticipate that the internal baffles are intended to block fire or projectiles which impact the wall faces. To achieve this purpose, every textual reference in the Specification and its diagrams show baffle deployment at an angle other than 90 (deg.) to the wall faces. This makes sense. If a baffle were perpendicular to the face wall, it would deflect or restrict substances or forces flowing from one end of the module to the other rather than those which impact a wall face. Because bullets, projectiles and fire would impact the face walls of the module, the baffles are placed at an oblique or acute angle to the face wall. Furthermore, the placement of the baffles at such angles creates an intermediate interlocking, but not solid, internal barrier in each module. This is displayed in all figures showing baffles. (See Figures 2, 4, 5, 6 and 7).

This interpretation is also consistent with the prosecution history of patent '798. When originally submitted, Claim 1 contained no reference to "baffles". Instead, it referred to "further means disposed inside the shell for increasing its load bearing capacity". Claim 1 was rejected pursuant to 35 U.S.C. s. 103 as unpatentable because it duplicated patent # 389 9043 issued to Mr. Hall. The Hall patent described wall modules designed to resist sound and fire and were joined with a sealant. When Claim 1 was amended to include the "internal steel baffle" language, the invention became distinguishable from the prior art of the Hall patent.

Plaintiff acknowledges that prior art such as the Hall patent utilized sandwich walls and face walls linked by steel studs. The unique aspect of the Phillips patent is the use of a "baffle" which acts as a steel stud but it does not extend from one wall face to the other and is angled so as to obstruct or restrict something. The things that are uniquely restricted or obstructed in Patent '798 are heat, bullets and bomb fragments. Thus, I conclude that for purposes of this Claim, "baffle" has two attributes. A "baffle" extends inward from the steel shell walls at an oblique or acute angle to the wall face and it forms, with other baffles, an intermediate, interlocking but not solid barrier in the interior of the wall module.

2. Claim 21

Claim 21 includes a preamble and three elements. The preamble states:

A prisoner detention facility providing vandalism resistance constructed of ...

The parties agree that the preamble is part of the claim because it defines a unique feature of this prison detention facility to be its ability to withstand attempts to destroy and deface it.

a. Element 1

Modular shell having outer steel plate wall panels.
As in Claim 1, the parties agree that "steel plate" is defined by the Specification to mean 14- to 10-gauge steel, and that "wall panels" are the larger surface area sides of the six-sided parallelepiped shape which comprises the module.

The Defendant argues that the complete phrase "modular shell having outer steel plate wall panels" should be limited by the Specification text describing Figures 2, 4 and 6. (See p. 18, *infra*.) Each figure reflects three triangulated shapes which when fitted together create the external wall surfaces of the module and an interlocking internal baffle structure. The Specification describes this configuration as,

Three steel panel pieces are formed into a module, each being partly triangular in cross-section so that only one weld seam between the two panels is required in assembling the three pieces, which thereby form the internal baffles at angles for deflecting bullets.

(Exhibit 1, Abstract Cover Page.)

The modules comprise three steel plate wall panel sections of partially triangular cross section shape positioned to provide the internally directed baffles and enclosure walls.

(Exhibit 1, Column 2, Lines 2-5.)

It may be seen that each model has its sides and end walls formed from two kinds of standard panel sections.

(Exhibit 1, Column 4, Lines 22-24.)

Plaintiff replies that the Specification figures and language reflect only the "best mode" or a single embodiment of the patent as described in Claims 4 through 20. Plaintiff further argues that Claims 4-20 are independent from Claim 21 and their limitations should not be read into Claim 21. Plaintiff also argues that the Abstract should not be used to interpret the claim.

The Court agrees with the Plaintiff. The '798 patent has unique features suited to its use in a prison facility, but the embodiment showing three triangulated pieces welded together to form a module is not the sole embodiment anticipated by the patent. As noted with regard to Claim 1, Element 2, there is a difference in between the configuration of the face walls in Figures 2, 4 and 6 (See p. 20) and Figures 5 and 7 (See p. 21). In figures 5 and 7, the face walls are bent but they do not have a fully triangular shape. Thus, in this aspect, the triangular shape found in Figures 2, 4 and 6, and as described in Claims 4-20, is simply one embodiment of the patent. The language of this element is clear on its face and need not be limited by the language or figures contained in the Specification.

b. Element 2

Welded together to provide unitary inner and outer steel walls and internal baffles ...
The Plaintiff argues that these terms are not given special meaning in the Specification and therefore are to be given their ordinary meanings. However, the parties agree that "baffle" is defined as "something for deflecting, checking or otherwise regulating flow." Webster's Third International Dictionary.

Consistent with the argument made with regard to Claim 1, the Defendants argue that the term "internal baffles" should be limited by the Specification in two respects. "Baffle" should be interpreted to require that 1) a baffle be disposed at an angle other than 90 (deg.) to the wall face in order to deflect bullets and projectiles; and 2) baffles interlock to form an intermediate barrier bifurcating the module's interior.

There is no suggestion in Claim 21 that the definition of "baffle" should be different than the definition of baffle in Claim 1. With regard to Claim 1, the Court has previously determined that a "baffle" should be interpreted to require disposition at an acute or oblique angle (other than 90 (deg.)) to the wall face in order to deflect bullets and projectiles. The Court has concluded that the only embodiment of the patent described in the Specification utilized baffles, interlocking to form an intermediate but not solid barrier. This is

because a baffle is something for deflecting, checking or otherwise regulating flow.

c. Element 3

With the modular shelves enclosing insulating material providing substantial thermal, sound and impact resistance.
The Defendant argues that this element is vague in that no definition is provided to interpret what the inventor means by the term "substantial" in modifying thermal, sound and impact resistance provided. Particularly, the Defendant argues that the language fails to specify a quantitative or qualitative measure of resistance to heat, sound, or impact. The Defendants further argue that in order to have substantial impact resistance, the invention must use "hard insulating materials such as concrete gravel, etc." but to provide "substantial heat or sound resistance" the invention must include "soft" insulating material such as foam board. The Defendant relies upon the testimony of Plaintiff's expert witness, Norman Werkler, who acknowledges that both types of insulation are required to simultaneously enhance impact, heat and sound resistance. (Exhibit 3, p. 135, Lines 12-20). To provide both type of insulation materials requires the separation of the materials into two compartments which are created by the baffles' intermediate, interlocking barrier.

This claim language is not so vague that it has no meaning, particularly in light of the prior conclusion that the term "baffle" must be interpreted in a manner consistent with the Specification. Because a "baffle" is deployed from an outer wall toward the center of the module at an angle other than 90 (deg.) to the wall face and because the only embodiment presented in the Specification displays the baffles creating an interlocking, intermediate barrier no further limitation is required to give meaning to this language. It is possible that either one type of insulating material or that two types of insulating material are appropriate each serving different functions.

3. Claim 22

Modular equipment for formulating detention structures.
Both parties agree that the preamble language defines the invention and is a limitation on this claim.

a. Element 1

A multiplicity of interchangeable modules of similar size.
Neither party argues for a special meaning for these terms.

b. Element 2

having steel plate inner and outer wall sections defining end closures and internally directed load supporting baffles ...
"Steel plate" is the same term defined previously in conjunction with Claim 1 and Claim 21 to mean 14- to 10-gauge steel. The Defendants argue that "inner and outer wall sections defining enclosures" has a meaning different from the language of Claim 1 "two outer steel plate wall sections of greater surface area serving inner and outer walls." As they have previously argued in the context of Claim 21, the Defendants respond that the language in Claim 22 specifically refers to the three-panel design described in text and depicted in Figures 4 and 6 of the Specification. This design is a configuration of wall panel sections with two different triangular shapes which, when fitted together, create all the required elements of the module, including the baffles and the internal locking intermediate barrier to projectiles and bullets. The Defendants

rely upon language in the Specification as follows:

The modules comprise three steel plate wall sections of partially triangular cross section shapes positioned to provide the internally directed baffles and enclosure walls.

(Exhibit 1, Column 2, Lines 2-5.)

The longer panel sections 20 comprise a cross section substantially that of the base of two partial legs of a triangle forming acute angles having an apex points at the opposite ends 24, 25 of the completed module. This construction affords integrally attached inwardly pointing baffles 26, 27.

(Exhibit 1, Column 4, Lines 30-35.)

The two shorter panel sections 21 abutted together, with each extending substantially half the dimension of the triangular base wall 11 of the longer panel similarly formed internally directed baffles 30, 31 ... these panel sections 21 then form in cross section a part of the substantially right triangle having the right angle forming the end walls 40 of the module.

(Exhibit 1, Column 4, Lines 38-47.)

The Plaintiff responds that Claims 4 through 20 contain a description of the outer walls being bent to form end panels and baffles in a triangular shape, but that such claims are independent from Claim 22 and therefore, under the doctrine of claim differentiation, such limitation should not be read into Claim 22. The Plaintiff further argues that the end structure of the module in Claim 22 is not described as those in Claim 4 and 20.

The problem here is that the end closure is not defined in Claim 22, at all. Indeed, the language "inner and outer wall sections defining end closure" is ambiguous. How walls "define end closures" is not clear from the claim and thus requires reference to the Specification. The Specification clarifies the meaning-the inner and outer walls of the module "define" the enclosure by being bent to create the end abuttment. No text or figure in the Specification shows any embodiment of the patent with an independent end piece that joins the two face walls. Indeed, it is the bending of the outer and inner wall to create the end piece which ensures that the end piece is not at right angles to the inner and outer walls, thereby limiting the metal-to-metal contact at the ends of adjoining modules.

The Defendant also contends that the language "internally directed load supporting baffles" should be interpreted and limited by the Specification. The Plaintiff responds as it has with regard to Claim 1 and to Claim 22, that the baffles need not interlock, need not form an intermediate barrier and need not be disposed as angles to the wall face other than 90 (deg.).

As determined with regard to the word baffle in Claim 1 and Claim 22, the term "baffle" in Claim 22 must be limited by the Specification. There is no indication in Claim 22 that "baffle" should have a different meaning than in the prior two claims. The modifying language "internally directed load supporting" does not change either the function or the configuration of the baffles as reflected in the Specification.

Thus, the language of this element describes outer wall sections which are bent to create end closures but are not necessarily triangularly shaped and baffle is defined as in Claim 1.

4. Claim 24

Modular equipment is defined in Claim 22 including insulation material inside the modules for resisting fire, sound and impact.
The Plaintiff contends, as it has with regard to Claim 1, that Claim 22 should be read in the context of a jail or prison environment and that no words in this claim have special definitions. The Defendant contends that the claim should be interpreted to require that the modular shell enclose material, separated by an intermediate interlocking barrier, which provides a significant amount of increased protection against thermal sound and impact transmission, including projectile penetration from one outer face of the module to the other outer face wall of the module.

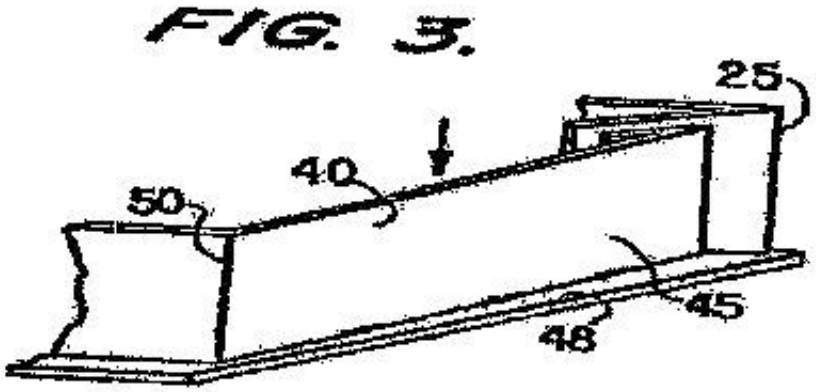
The analysis with regard to Claim 22 resolves this dispute. Because the definition of "baffle" in Claim 22 includes the intermediate interlocking barrier described and displayed in the Specification, there is no need to provide greater specificity with regard to the insulating material to be used.

5. Claim 25

Modular equipment as defined in Claim 22 including modular shape for abutting modules end-to-end in registration to meet substantially only along two welded lines appearing at the inner and outer wall surfaces wherein the multiplicity of modules are welded together along the two weld lines.
The Plaintiff contends that all terms of this claim should be given their ordinary meaning. Unlike Claims 21, 22, 24 and 26, this claim requires that the modules only be welded at specific places-seams on the "inner and outer wall surfaces."

Initially, the Defendants contended that this claim was fatally vague because it is not comprehensible to one with ordinary skill in the art. The Defendants later changed their position to argue that Claim 25 be construed to require that the ends of the two modules touch each other only at the seam lines. The Defendant argues that this is accomplished by shaping the end panels so that they do not lie flat against each other but are somewhat concave. Because no such limitation is presented in the claim, Defendants apparently rely on the embodiment of the invention described in the Specification at Column 4, Ln 60 to Column 5, Ln 4. This section reads:

As best seen from FIG. 3, the module ends 40 are not perpendicular to the front and back panel facings 11 and 12. Thus the apex 49 of the right angle triangular panel section 21 is displaced inwardly toward the center of the module from the apex 25 of the longer panel section 20. The end place 40 thus is at an angle 48 of a few degrees. As a result there is only line contact between adjacent modules along the apex 25 and along the apex 50 when the modules are assembled in registration by welding the two modules together. Thus only the seam 22 and the corresponding seams along the apex lines 25 and 50 need be finished by sanding, etc. to provide smooth inner and outer wall surfaces.



The Court agrees with the Defendants, in part. The language of Claim 25 requires that the modules meet only at the weld lines on the inner and outer walls. If the end components were configured at right angles to the outer walls, modules would meet not only at the weld lines but also for the entire length of the end panels. This is contrary to a fundamental aspect of the invention; that of preventing steel-to-steel contact between the inner and outer walls of the modules. In addition, such interpretation would be contrary to the language of Claim 22 upon which this claim depends. As with regard to Claim 22, reference to the Specification is required to determine the configuration of the end closures. The only end closures depicted and described in the Specification are end closures created by the bending of the inner or outer face wall at an angle other than 90 (deg.). Such configuration is displayed in Figures 2, 3, 4, 5, 6 and 7. No figures or text identifies this configuration as a "best mode" embodiment; indeed, it is the only mode that is described and furthermore is the only mode that meets the objective of the invention-that of preventing a steel-to-steel connection between the inner and outer walls.

The Court does not agree, however, with the Defendants' argument that the construction must reflect a concave wall. There is nothing in this claim or in the Specification that suggests a concave configuration, merely that the inner and outer walls be bent to create end closures at an acute or oblique angle to the wall face.

6. Claim 26

Modular equipment as defined in Claim 22, including means defined in the end closures disposing thermal insulation between the inner and outer walls to interrupt steel-to-steel contact.
The Defendants argue that Claim 26 is stated in a means-plus-function format requiring resort to the Specification is required to determine the means for the function. The means disclosed in the Specifications is the "compressible seal" as depicted in Figure 6, and as elaborated upon in reference to Element 2, Claim 1 as glass fiber rope. The function provided is the interruption of steel-to-steel contact between the inner and outer walls.

The Plaintiff contends that this claim contains no special terms and relates to the same issues discussed for Claim 1. The Plaintiff readily acknowledges that "one of the main ideas in this invention is the thermal isolation of the two wall faces to prevent the spread of fire, as well as sound and impact". Thus, the Plaintiff contends that this claim allows for any type of thermal insulation to be interposed between the wall faces to prevent steel-to-steel contact which would defeat the fire, sound and impact resistance of the module.

The dispute with regard to this claim is resolved by the same analysis expressed with regard to Claim 1. As

acknowledged by the Plaintiff, one of the main ideas of the invention is to prevent a steel-to-steel connection between the inner and outer wall. Both the language of this claim and the Specification anticipate that there may be different substances which may act as a seal between the bent end piece of one wall face and the other wall.

2. Summary of Claim Construction

Based upon the foregoing, I construe the disputed claims language as follows:

Claim 1

"Impact resistant" is construed as pertaining to projectiles such as bullets and bomb fragments. "Substantially parallelepiped shaped" means a six-sided parallelogram in which the end panels are neither parallel to each other nor perpendicular to the face walls. The phrase "steel plate panel sections of greater surface area serving as inner or outer walls for a structure when a plurality of the modules are fitted together" is not limited to the embodiment described in Claims 4 through 16 nor as reflected in Figures 4, 5 and 6 where the modules are constructed with the assembly of three triangularly shaped pieces. "Sealant" is not limited to glass fiber rope.

"Internal steel baffle" means a structure obstructing, impeding or checking the flow of heat and projectiles such as bullets or bomb fragments deployed toward the interior of the module at an angle of other than 90 (deg.) and when fully assembled forms an intermediate, interlocking, but not solid, barrier.

Claim 21

The term "modular steel shells having outer steel plate wall panels is not limited to the triangular shape reflected in Figures 4, 5 and 6 or described in Claims 4 through 20. Insulating material providing substantial thermal, sound or impact resistance does not require an intermediate interlocking barrier.

Claim 22

The phrase "inner and outer wall sections defining end closure and internally directed load supporting baffles" does not mean that the wall need be configured by use of three triangular shapes as in Figures 4, 5 and 6, however, baffle is defined as in Claim 1.

Claim 24

No interpretation is required in light of the construction interpretation for Claim 22.

Claim 25

This language is interpreted to mean that the end closures are configured by bending the face walls at an angle other than 90 (deg.) but not necessarily creating a concave surface.

Claim 26

The term "means defined in the end closure disposing thermal insulation between the inner and outer walls" is not limited to glass fiber rope.

DATED this *20th* day of November, 2002.

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing Memorandum Opinion and Order on Claim Construction for '798 Patent was served on November *22,* 2002, by:

(X) delivery to:

Magistrate Judge Craig B. Shaffer

( ) e-mail to:

( ) facsimile to:

(X) depositing the same in the United States mail, postage prepaid, addressed to:

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