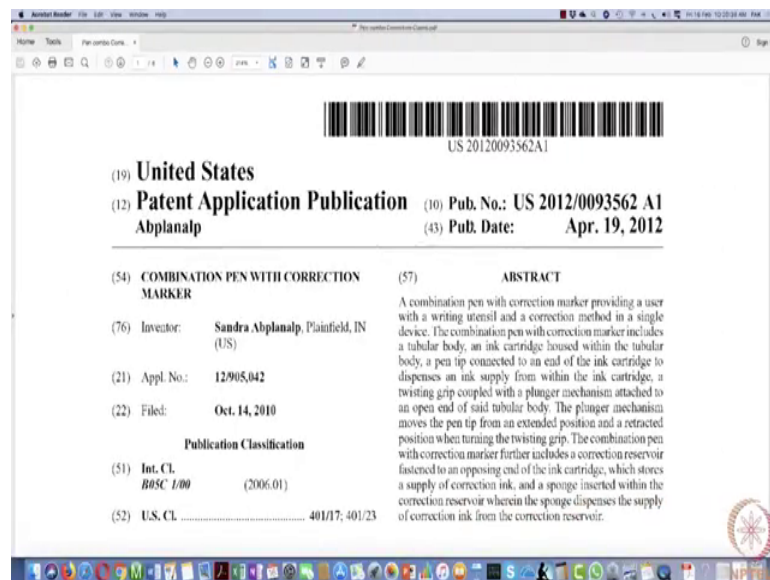


**Patent Drafting for Beginners**  
**Prof. Feroz Ali**  
**Department of Humanities and Social Sciences**  
**Indian Institute of Technology, Madras**

**Lecture – 44**  
**Claims Analysis Combo Pen with Marker**

Claim Analysis: Combination Pen with Correction Marker. In this lecture we will be looking at analyzing the claims of a patent for a combination pen with correction marker. Now let us look at the patent document.

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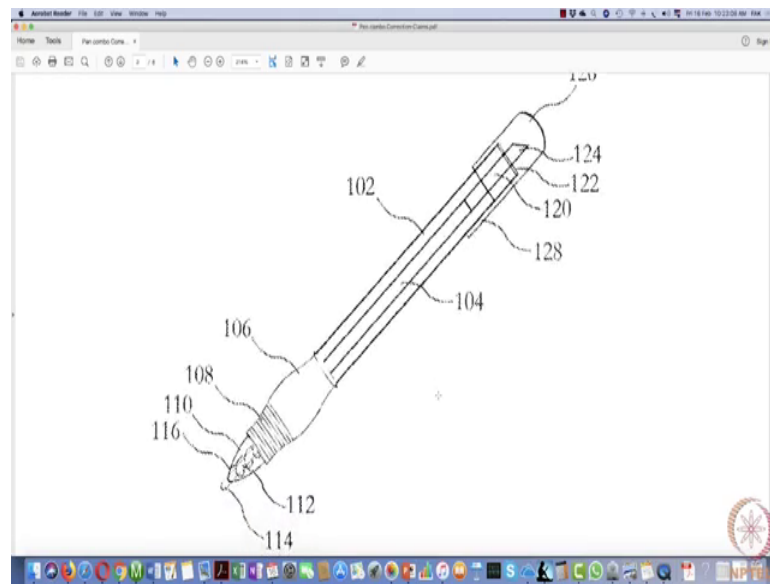


Now, this is a United States patent and it has got some bibliographical details which you can see and at 54 you will find the combination pen with correction marker; you can see that. The title is mentioned here now these are numbers which signify different fields 76 is inventor, 21 is application number, 22 is the date on which it is filed and so, on.

Now the abstract gives you a detail of a summary of what the invention is about. Now we will just quickly read that abstract at least a part of it a combination pen with correction marker providing a user with a writing utensil and a correction method in a single device. Now that itself gives us an impression about what the invention is about; it is a combination pen with the correction marker and the correction method and the writing instrument both these things are united or are combined in a single device.

now let us take a detail look at this claim because our object in this lecture is to analyze the claim to ensure how did the claim come into being. So, we can look at parts of the specification and eventually see how those parts turned into a claim. And when we look at the claim we will also be able to see what portion of the description got into the claim and how the transition happened? And we will also; obviously, be analyzing the claim claims in the light of whatever we have learned so, far. So, let us have a look at this.

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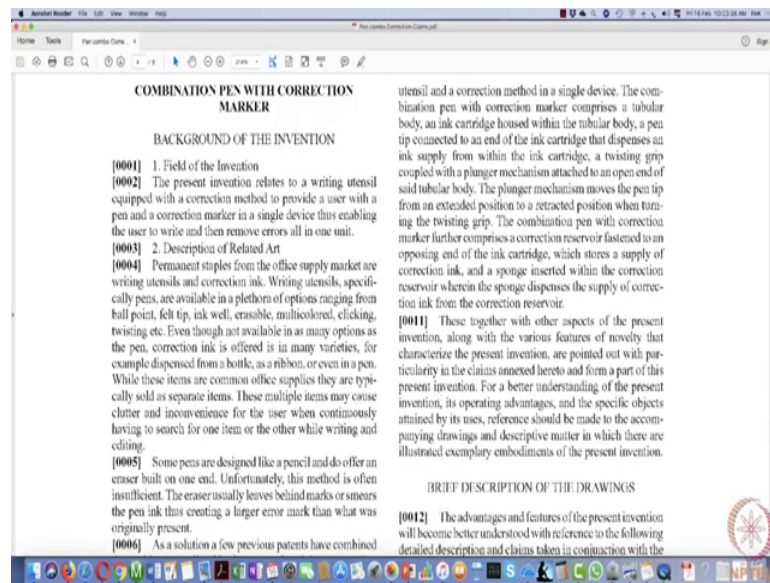


So, you though the patent is a apparatus patent it is largely the claim is for an apparatus which is what we call a product patent. And for mechanical devices we have already mentioned it usually starts with the drawing.

So, you can see the drawing here it is just a drawing without any writings in it and patent drawings are drawings except for flow diagrams you do not have writings on it; you only have markings and numbers reference numbers. And the explanation to the drawing is given in a different part of the specification itself. So the drawings need to be explained in writing; so, we will come to that part.

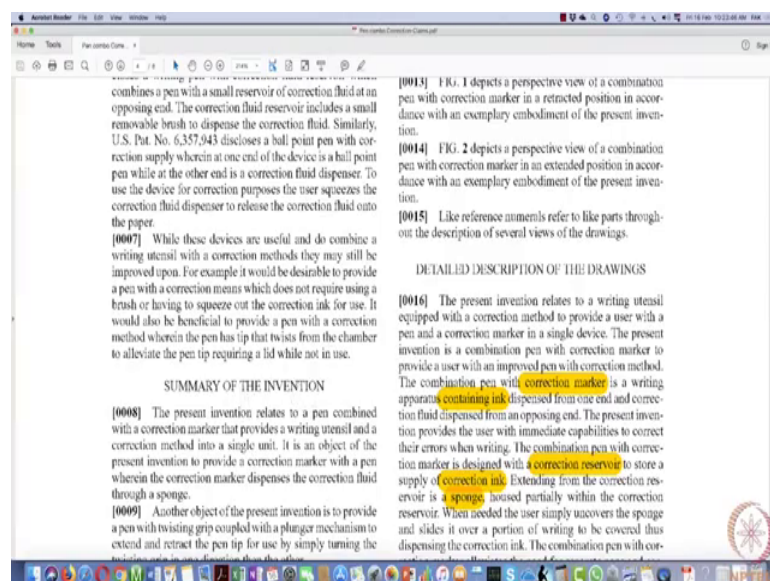
So, so, the drawings figure first in the Indian practice you have drawings filed in separate sheet. So, and there are more drawings you can have a look at that and there are further drawings describing how different things work and the you will be coming across what these numbers actually denote and then we have the description which is the specification.

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Now the background of the invention is important we received a question on how do we construct or how do we write a problem solution statement? And which part of the specification if you are actually looking at a granted specification and trying to look draft a problem solution statement which part of the specification should we be looking at? It is this part the background of the invention and the part just above summary of the invention.

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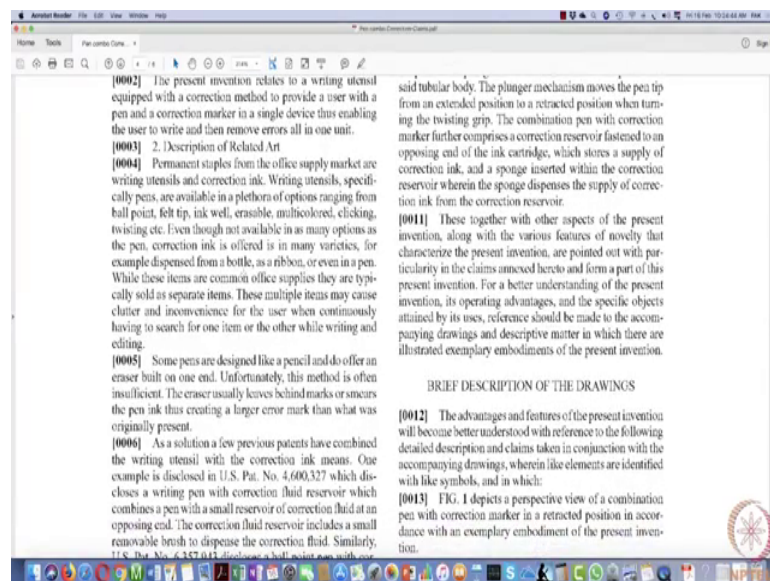


So, the summary of the invention is actually the invention itself, but the background should give you an understanding of what problems existed in the art.

So, ideally if you want a problem solution statement you will look at the background, understand what the problem in the art was then look at the summary of the invention understand the solution and then by reading these two parts you should be able to come up with the problem solution statement.

Now, let us just run this quickly field of invention the present invention relates to writing utensil, the choice of word could be in writing device, writing instrument, writing apparatus equipped with a correction method to provide a user with a pen and a correction marker in a single device. Thus enabling the user to write and then remove errors all in one unit. So we understand; what is the field of the invention it is a combo device.

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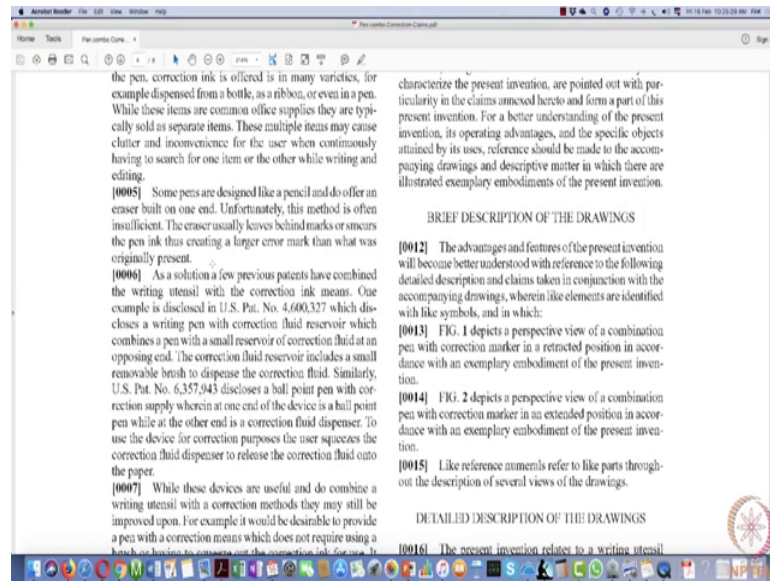


Now description of related art now this is where you can describe; what went before permanent staples from the office supply market are writing utensils and correction.

Student: Ink.

Ink writing utensils specifically pens are available in a plethora of options ranging from ballpoint, felt tip, inkwell, erasable, multicolored, clicking, twisting etcetera now they describe further things about the field itself this is the background.

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Now, in para of 5 they mentioned some pens are designed like a pencil and do offer a eraser built at one end. Now this is not an eraser at one and it is a correction marker at the end, but look at the parallel they are bringing they are showing pen pencils with an eraser as a prior art or something which could be comparable and they continue.

Unfortunately this method is often insufficient; so, whenever you see this language unfortunately that that or the problem with the existing art; it tells us that they are trying to define a problem in the prior art. The eraser usually leaves mark behind or smears the pen ink thus creating a large error mark than what was originally present. So, they bring out a problem in the eraser.

Para 6 as a solution a few previous patterns have combined the writing utensil with the correction ink means. So, they say there is already some prior art and that has been patented. And pattern number 3 is to 7 which discloses a writing pen with correction fluid reservoir which combines a pen with a small reservoir of correction fluid at an opposing end. Now look at this now the earlier patent calls the instrument a writing pen now they call it a utensil. Now you can see I mean the choice of words would largely come out of what in what position you are while filing your pattern and what was the patterns that went before you.

The correction fluid reservoir includes a small removable brush to dispense the correction fluid. Similarly 9 4 3 US pattern 9 4 3 us pattern 9 4 3 it is an easy way to

refer to the pattern by the last 3 numbers and it is also you can also write it that way write an apostrophe 9 4 3 the earlier pattern I just mentioned it that 3 to 7. So, I am referring to the last few numbers discloses of ballpoint pen with correction supply where in at one end of the device is a ballpoint pen; while at the other end is a correction fluid dispenser. To use the device for correction purposes the user squeezes the correction fluid dispenser to release the correction fluid onto the paper.

Now, these are two prior arts which this pattern recites saying that there has been instances of combo pen, but the invention is different; now they come to that part. Now this is the solution they are offering right now was the problem that erasers were not were insufficient and they were existing are existing patterns now they come to the defining their problem.

7 while these devices are useful and do combine writing utensil to a correction methods, they may still be improved upon. For example, it would be desirable to provide a pen with a correction means which does not require using a brush or having to squeeze out the correction ink for use. It would also be beneficial to provide a pen with a correction method wherein the pen has tipped that twist from the chamber to alleviate the pen tip requiring a lid while not in use ok.

So, they this is more often improvement patent. So, they do not identify a problem that needs to be solved, but they identify scope for something to be better. So, which is as good as a problem to say that we do not have pen with a twisting tip, where if you rather than having a replaceable cap and that we do not have correction marker which need not be operated through a brush or through a squeezing means; so, you can see that.

So, the problem statement here is not an existing problem it is in a you can call it an inefficiency of an existing solution or the ability to improve a power an existing solution. So, there is an existing solution this invention comes upon as an improvement. So, that is the problem the problem is the existing solutions are not perfect. So, there is scope for improvement that is why they say correction methods they may still be improved upon.

So, from this you can see the pitch the pitch is on a device or combo device and most specifically the pitch is towards an improvement of a better combo device; there are combo devices which do the same job, but this is an improvement over what is already there. Now how do they achieve this? For that you can just quickly read the summary of

invention and the summary of invention will tell you how this is combined and how this is the invention is presented.

Now, following the summary you have the brief description of drawings; now the brief description is a very short description of what figure 1 and figure 2 are followed by a detailed description of drawings. Now in mechanical devices; the entire focus is on the drawings.

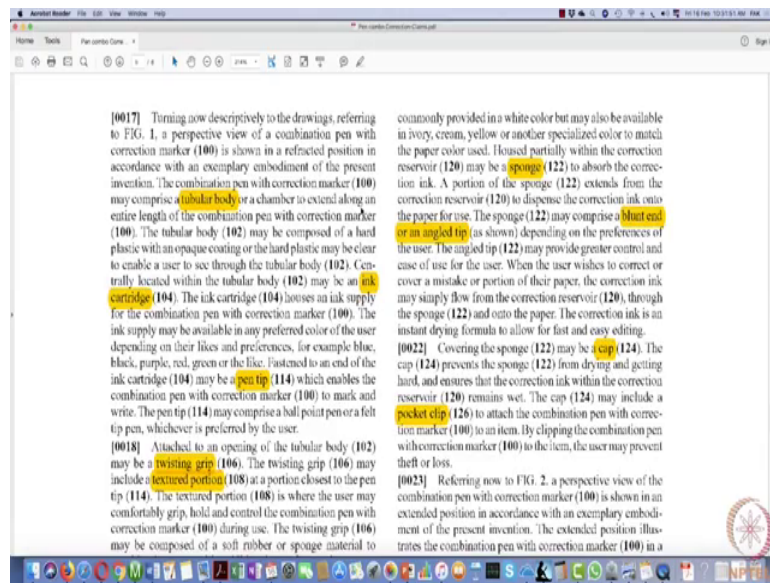
So, you see the drawings placed first then the brief description of the drawings. And the detailed description of the drawing itself explains the entire description of the invention. So, in this case the detailed description of the drawing ends and the claims begin the next portion is the claims itself.

So, I have highlighted some parts here; so, that as you read this you will know these parts; I am not going to read the entire thing the document is available online you have seen the pattern number and the first page. So, you can search for it now I will just read parts of it in the detail description of the drawing.

A combination pen with correction marker as a writing apparatus containing ink; so, so there is correction marker and there is ink. Further down the combination pen with correction marker is designed with a correction reservoir to store a supply of correction ink. So, there is a correction reservoir and correction ink is stored there; the earlier ink was the writing ink extending from the correction reservoir is a sponge. So, the sponge is another I have just highlighted the things that could be important or the things that could get into a claim.

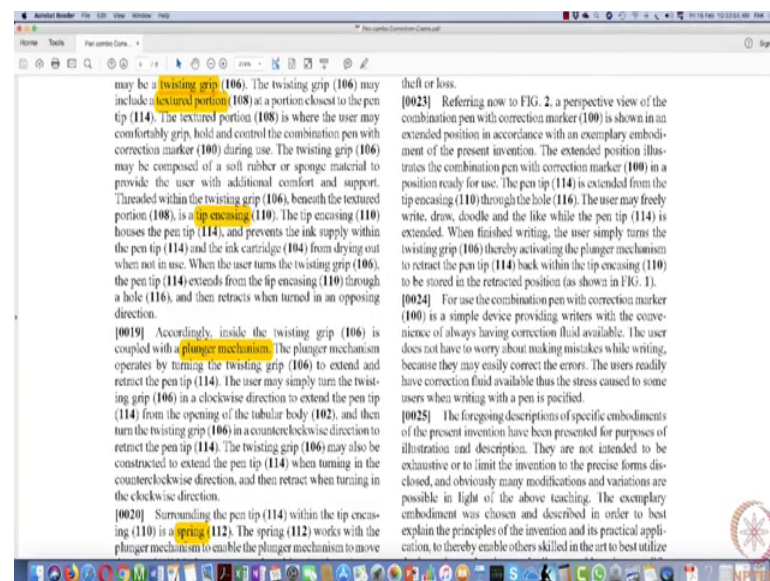
Now, make a note of this mental note of this and see how it gets into the claim. And see what gets into the main claim and what gets into the or the independent claim and what gets into the dependent claim now that is the exercise we are trying to do here. So, there are other things explanations.

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Now, now in para 17 the combination pen with correction marker may comprise a tubular body; now look at the language may comprise a tubular body or a chamber to extend along an entire length which is what you call the main part of the pen. So, the tubular body is recited it is mentioned further down the next highlight centrally located where in the tubular body may be an ink cartridge.

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So, the ink cartridge is mentioned and further down fastened to an end of the ink and ridge may be a pen tip. Now maybe language is used you would see maybe language is



used here to tell you that it could also be something else. So, it could be a pen tip or it could be something else which you will soon see.

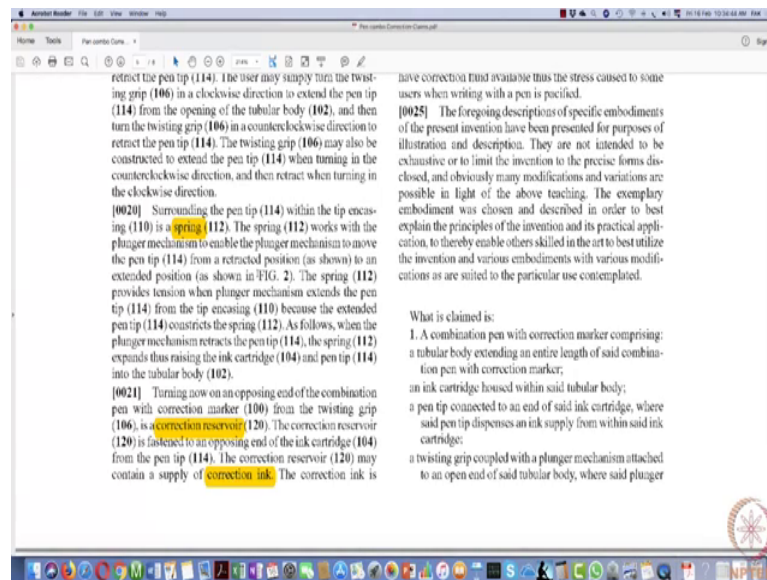
The next highlight attached to an opening of the tubular body may be a twisting grip. So, the grip as it is recited the twisting grip may include a textured portion. Now look at this carefully they recite a twisting grip and a detail to the twisting grip is a textured portion which means we have already seen. So, twisting grip is one level of detail if the textured portion is there to a twisting grip that becomes a limitation on the twisting grip.

So,; so, you can understand that the twisting grip to be recited in one clause and the next clause you can see a transition say characterized by or where in the twisting grip is a texture portion. So, you can see how the language of the claim can emerge from this the next highlight.

Threaded within the twisting grip beneath the textured portion is in tip encasing. Tip encasing is another thing which I have highlighted down para 19. Accordingly inside the twisting grip is coupled with a plunger mechanism; so, the plunger mechanism is a way in which the twisting grip operates by twisting the plunger mechanism mechanism operates by turning the twisting grip.

So, so, there is also; so this is different from they need to have a cap. So, which was recited in the prior art the prior art had a cap which here you have a twisting mechanism by which this the tip can get inside the body of the pen.

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Now, para 20 surrounding the pen tip with the tip encasing is a spring; now spring is recited and how the spring works is also detailed there.

21 turning on to the opposing end of the combination pen with correction marker. So, right now we were at the writing end; we go to the other end from the twisting grip is a correction reservoir. So, the reservoir with the correction fluid is at the opposite end; so, so see how they in the description they move to the other end of the invention. So, they recite the correction reservoir and they further say the correction reservoir may contain a supply of correction ink even that is recited.

Now coming on to this part this side housed partially within the correction reservoir may be a sponge; sponge is recited. The sponge may comprise a blunt end or an angled tip; so, there is a choice here may comprise a blunt end or an angle tip covering the sponge may be a cap. So, that is optional you can have a cap covering it; the cap may include a pocket clip pocket clip.

So, now this is a quick overview of the invention I know that you during an opportunity to read every word of it which you can; obviously, do at your leisure. Now this tells you that there are certain elements the elements are the ones which are highlighted and there are certain functions; functions are every time an element is recited, the function is also recited following it what does that thing do?

Now, so, so you can actually see the what you call the framework of a claim here. So, what I mean what has been highlighted are the elements and based on the elements and the function you should be able to write a claim; now let us analyze the claims. So, we come to the claims what is claimed is a combination pen with let me use the highlight here a combination pen with correction marker.

So, that is also recited; so, this is the preamble a combination pen with correction marker. In some cases the preamble itself becomes the title of the invention, this is an ideal case where the preamble qualifies for a title.

Now comprising is the what we call the transition; now let us see comprising look let us look at the body what does the body contain? A tubular body we had seen this being recited extending an entire length of the said combination pen and the correction marker. So, what does the tubular body the function of the tubular body or the structures rather is that it extends to the entire body.

Then you have an ink cartridge housed within the said tubular body; now what we need to understand here; once an element is recited tubular body is recited. When the next element is recited which is the ink cartridge there is always a connection to what was recited before because that is how it what we called a logical structure. So, the ink cartridge is housed within the tubular body and what is the tubular body? What you will recited in the earlier clause a tubular body extends to the.

So, try to understand the way in which an engineer may describe this in a structurally coherent manner is to recite each part in a manner in which it is connected to the earlier part which was disclose to you. So, first they say there is a tubular body then they say there is an ink cartridge where is the ink cartridge oh the ink cartridges inside the tubular body; then there is a pen tip connected to an end of the said ink cartridge. So, look at look at the flow here; so, the pen tip when it is recited it is mentioned that it is connected to the in cartridge. So, the pen tip is connected to the ink cartridge the ink cartridges inside the tubular body.

So, you can see how the logical structure comes in. So, without a logical structure this will look like a list just a list or collection of material what we call we cannot call it a combination; it is just an aggregation or a list. So, so what makes it a combination is the element is recited and how the element is connected to the other part is also recited. So,

when they recite the pen tip they mentioned that the pen tip is connected to the end of the said ink cartridge wherein the said pen tip dispenses ink supply within the ink cartridge.

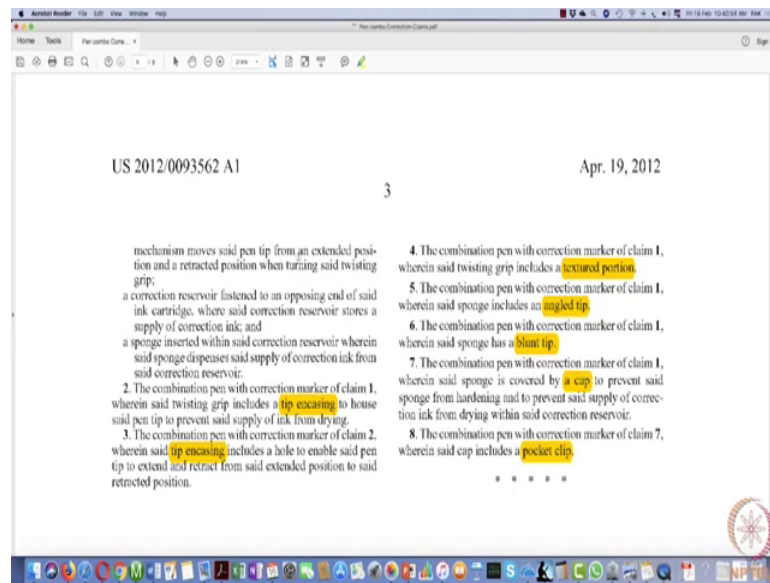
Now couple of things to note here it starts with a combination pen that was a indefinite article. Again the first element was a tubular body, but when the tubular body was recited for the second time here it became said tubular body look at that. So, it is no longer indefinite; so, said this definite.

So, so there is a transition from the indefinite to the definite. Now this is what we had already explained as antecedent basis because tubular body is already recited a tubular body you can now call it the tubular body said tubular body such tubular body. Because it is already recited there is antecedent basis again notice an ink carriage for the first time you use indefinite article.

Now in the next clause when in cartridge is recited again you say said ink cartridge and so, on the same thing a pen tip said pen tip. So, you can understand the logic now; now then the fourth element is a twisting grip coupled with a plunger mechanisms. So, there are two things the grip also has a plunger mechanism attached to an open end of the said tubular body.

So, to an open end look at that because the tubular body has two open ends. Now you could also call it to the upper end or the lower end depending on how you have described it you could use you could use those words.

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Where in the said plunger mechanism moves said pen tip from an extended position to a retracted position when turning said twisting; so, the mechanism is also explained its it can be from a retracted position, it can move to an extended position. So, like you would have seen in most twisting pens all the ballpoint pens which was to on the twisting mechanism is what we call a plunger mechanism. So, the plunger is a choice of word which this inventor has used.

Now the next element a correction reservoir fastened when opposing end now here we had an open end and here they use an opposing end of the said ink cartridge where in the said correction reservoirs stores a supply of correction ink. So, the correction reservoir is recited and the structure is recited and where or wherein resides the function what does it do? It stores the supplying.

And finally, so you can see and here and tells us that the elements are coming to an end. So, it is a closed set of elements and a sponge inserted within the said correction reservoir where in the said sponge dispenses said supply of correction fluid from the said correction reservoir; now this completes the invention.

Now you can see the number of elements tubular body, in cartridge pen tip, twisting grip, plunger mechanism, correction reservoir and sponge. And we had when we read the descriptive part we are actually seen in the highlights; we did a quick reading of it how these elements are connected to each other? How they are they interact with each other

and describing their functions and the options also; in sponge we saw that it the sponge could have different options.

Now this is the main claim or what we call the independent claim. So, as we have discussed an independent claim does not have reference to anything else and an independent claim can stand on its own if there is no cross reference. And whatever limitation you find here are the only limitations that are there for instance there are 1, 2, 3, 4, 5, 6 elements recited the invention needs to have all those 6 elements; so, that is a limitation.

Now let us look at the dependent claims a combination pen with correction marker of claim 1; it could also have been a combination pen off claim 1 that would have been perfect, but anyway you have a short preamble; so no harm in reciting all the words of the preamble if it is a shorter one.

Wherein said twisting grip includes a tip encasing to house said pen tip to prevent said supply of ink from drying. So, there is a tip encasing which was already recited you had seen that it was already mentioned in the description. So, the here the twisting grip which is here which is an element that was already recited in the main claim; gets the twisting will appear gets the limitation which says that it includes a tip encasing ok. So, so the limitation in the second claim is to the twisting grip and not to any other element.

Now let us look at dependent claim 3 the combination pen with correction marker off claim 2. So, claim 3 is dependent on claim 2 which in turn is dependent on claim 1. So, this is a dependent claim with single dependency the dependency here is claim 2, but it is indirectly dependent on claim 1. So, you could even mention this as a combination pen with correction marker of claim 1 or claim 2, but the point is because they are going to recite a limitation on the tip end casing, it is better to have it on claim 2. So, it is a single dependency claim, but it could be written as a, but you will have to change the language it could also be written as a multiple dependency claim.

And in some jurisdictions there are multiple dependency claims will attract more cost. So, that is another reason you will find that not many patterns will have multiple dependency claim; you will out to be more cost per claim examination of claim the examination fee is proportional to the number of pages you write and to the number of

claims you have. So, this is something which you will learn in our other course pattern law for engineers and scientists which is also running parallally on NPTEL.

So, you will find that wherever the cost of examination increases it is largely because the person had more pages than the minimum allotted pages or the person has more claims than the minimum number of claims allowed now to claim 3.

The combination pen with correction marker of claim 2 wherein said tip encasing includes a whole to enable said pen tip to extend and retract from said extended portion to said retractor portion. So, the tip in casing has a whole 4 the combination pen with correction marker of claim 1 wherein said twisting grip includes textured portion. Now twisting grip is another element which we have already mentioned this is the twisting lip. So, so this is also on the twisting grip; so, here this twisting lip includes a textured portion; so, the limitation is the textured portion.

5 combination pen with correction marker of claim 1 wherein said sponge includes an angled tip; so, the sponge is the limitation that you had seen that in the main claim there is a sponge. So, this claim 5 is a limitation to the sponge what is the limitation? It includes a angled tip. So, when you say it includes an angle tip it also has other things in it. So, it is the sponge also has other things it includes angle tip.

Now, claim 6 is a connected claim a combination pen and look at here it the claim phi goes back to claim 1 and not to claim 2 or claim 3 because claim 2 and 3 are limitations on twisting group whereas, claim 5 and 6 are limitations on the sponge.

Now, 6 a combination pen with correction marker of claim 1 wherein the said sponge has a blunt tip as opposed to an angle tip. So, a blunt tip is again something which was recited if you had seen the inventor reduce the language may. So, may means it could be an angle tip or a blunt tip.

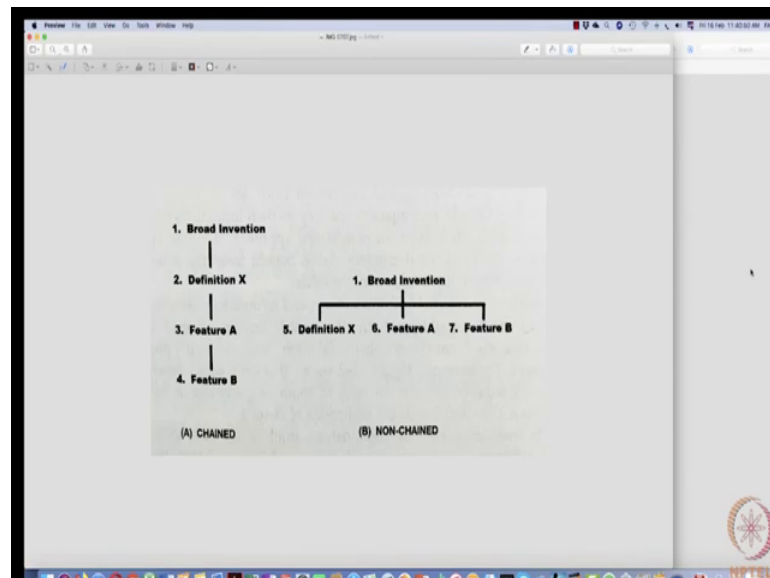
Claim 7 a combination pen with correction marker of claim 1 wherein said sponge is covered by a cap to prevent said sponge from hardening and to prevent such supply of correction ink from brain within said correction reservoir. So, the sponge has a cap. So, this was already described in the description.

8; the combination pen with correction marker of claim 7; so, this is a limitation on claim 7 wherein the said cap includes a pocket clip a pocket clip is something which you find in your usual pens so, that you can clip it on to your pocket. So, this is how the claims are recited you have one independent claim followed by 7 other dependent claims.

And we saw the arrangement of the claims claim 2 and 3 are on one element of the claim 2 3 are on one element that is the twisting grip which go to claim 1. And the claim 4 is also on the same twisting grip, but it gets its parent is claim 1 claim 5, 6, 7 are limitations on the sponge they all go back to its parent claim 1 claim 8 is dependent on claim 7.

So, you can see that claim 2 and 3 are grouped together because 3 is dependent on 2 and claim 8 is dependent on claim 7. So, you can see you can actually draw a claim arrangement chart a claim arrangement chart is where the claims are arranged to show what is dependent on which claim arrangement.

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Now, claims can broadly be arranged in two formats one is what we call the chained format and the non chained format. The chained format the first claim will have the broad invention followed by a definition of element X and then by a feature A which you want to introduce that will be in the claim 3 and claim 4 can introduce the feature B.

So, you have the this is called the chained arrangement; so, when you have a series of dependent claims flowing out of a main claim; you follow the chained arrangement and



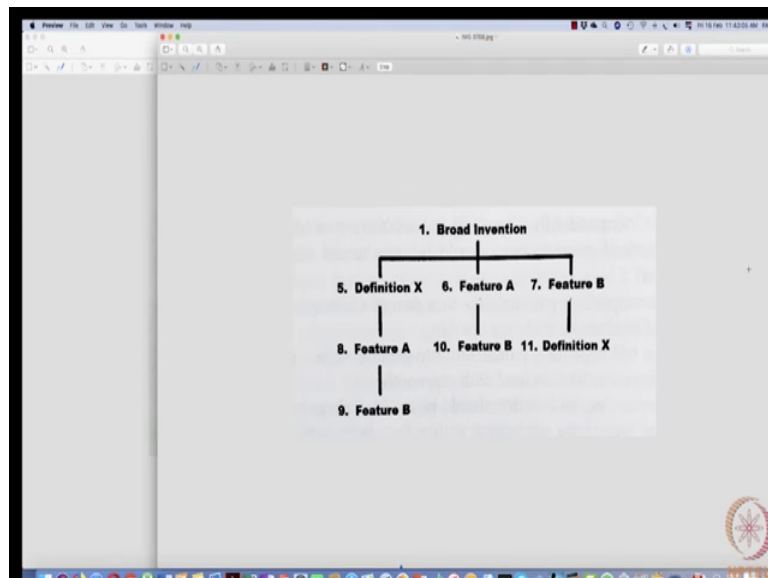
we had seen it in couple of examples. So, the broad invention is followed by definition we would define element X and in claim 2 which is a dependent claim in claim 3 and claim 4 you bring out features A and B of what you had defined in claim 2 of element X now that is the chain arrangement of claims.

So, you have the broad invention as the independent claim followed by 2, 3 and 4 dependent claims which are dependent because in claim 2 you introduce an element X and define it in claim 3 and claim 4 you introduce features of element X and define them or introduce them and tell how it works.

Now, apart from this you could have a non changed chained arrangement where claim 1 is the broad invention claim 5 is definition X which is dependent non claim 1. So, you would recite claim 5 as an apparatus of claim 1 and then wherein or characterized by you define element X.

You could have claim 6 directly flowing out of claim 1 wherein you would say apparatus ask of claim 1 wherein the feature or wherein feature which you want to introduce of definition of the element X can be defined or can be introduced there. Similarly, you could have claim 7 where you introduce feature B directly from claim the main independent invention the broad invention; now this is one arrangement.

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Now, here you have a set of dependent claims; this is an arrangement which follows both the merits of both the things. So, both the charts that you saw this has the chained and the non chained.

So, in one set of claims you could have 1, 5, 8 and 9 in the chained manner. And you can have 6 and 10 again chained one 7 and 11 again change chained and you can have 5, 6 and 7 in the non chained manner; now this gives you flexibility in prosecution.

Now, if there is some objection raised on the definition of X in 5 claims 5. The definition of X is still covered in claim 11 and claim 11 will still survive. So, so this is the way in which the if you can you can take this as an exercise you can take a complete specification of with a few set of granted claims and try to draw a claim chart a claim dependency chart.

Now, this is a claim dependency a chart. So, you could look at the pen combo; the combination pen and try to draw a chart and see how the chart comes which invention is based on what which claim is based on which claim and you can find that the chart will show whether you have a chained arraignment or a non chained arraignment. Preferably you will have a mix of both to ensure that your claims will survive objection that can come from the patent office.